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INDIAN FINANCE AND BANKING

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THE MACMILLAN CO. OF CANADA, Ltd.
TORONTO

INDIAN FINANCE AND BANKING

BY

G. FINDLAY SHIRRAS

DIRECTOR OF STATISTICS WITH THE GOVERNMENT OF INDIA; FELLOW OF THE UNIVERSITY OF CALCUTTA; ON SPECIAL DUTY IN THE FINANCE DEPARTMENT OF THE GOVERNMENT OF INDIA, 1910-1913; READER IN INDIAN FINANCE AND CURRENCY IN THE UNIVERSITY OF CALCUTTA, 1914

MACMILLAN AND CO., LIMITED
ST. MARTIN'S STREET, LONDON
1920

First Edition 1919
Reprinted 1920

TO

THE UNIVERSITY OF CALCUTTA

AND

SIR ASUTOSH MOOKERJEE

VICE-CHANCELLOR, 1906-1914

PREFACE TO SECOND IMPRESSION

As a second impression of this book has been called for, I have taken the opportunity to add as an Appendix a summary of the conclusions of the Committee on Indian Exchange and Currency (published on February 2, 1920), together with the orders of the Secretary of State in Council on the Report.

G. FINDLAY SHIRRAS.

CARLTON HOTEL,
PALL MALL, LONDON, S.W.,
February 20, 1920.

PREFACE

I ALONE am responsible for the contents of this book. It has no official character whatsoever, and has not been examined by the financial authorities of the country.

G. FINDLAY SHIRRAS.

CALCUTTA,
July 24, 1919.

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CHAPTER I

INTRODUCTORY

I

The Subject Matter of Indian Finance

Nine times out of ten Finance is regarded, sometimes not without reason, as dull, unmistakably dull, and Indian Finance is no exception to the rule. It is, as Hamlet would say, "caviare to the general," and is ordinarily of interest only to those who have a positive genius for the subject. The man in the street is accustomed to regard it, except when written by a Bagehot or a Hartley Withers, as the work of one who revels in statistics, excogitates taxes, and manipulates budgets. With such a person he is profoundly out of sympathy, and especially is this the case if, even against the dictates of common sense, the financier, like Pharaoh of old, hardens his heart. To speak perfectly frankly, both the man and his subject are of little interest to him, except on the rarest of occasions. The jargon of the text-books bewilders the ordinary reader when the tale is told with a commonplace obscurity of phrase. We must, therefore, try to place on one side pedantic respect for mouldy precedent, and describe the Indian financial machine in such a way that he who runs may read, and reading, understand. Sometimes we shall have to say what is very platitudinous, but the gain will be great. We shall see that Indian financiers in the forbidding portals of the Finance Department and in the money markets of our large cities are after all very human persons whose energies, directly or indirectly, are concerned with India's pecuniary resources. In short, they deal with the machinery by which money matters are handled, and the subject is, as Wilson, one of the greatest of India's Finance Members and a former Secretary of His Majesty's Treasury, said over sixty years ago, "not mere arithmetic; finance is a great policy. Without sound finance no sound government is possible; without sound government no sound finance is possible." The scope of the book will include the everyday conditions under which the financial system works, the circulating media such as rupees, sovereigns, and notes, exchange, banking, and the very important questions relating to Government balances and reserves in India and abroad, especially in London, the great money market of the world, where international transactions in normal times are settled.

In view of the changes that are shortly to take place in imperial and provincial finance on the introduction of the Montagu-Chelmsford Reforms, it has been decided to omit for the present any systematic treatment of that branch of the subject relating to public revenue and expenditure. There is, therefore, no mention of that fascinating study—financial devolution from the early days, *i.e.* before 1858 (when not even a messenger on four rupees per mensem could be permanently engaged without the sanction of the

Governor-General in Council[1]). The influence of the Act of Parliament of 1858, the evolution of provincial finance during the Viceroyalties of Lords Mayo and Lytton down to recent years, have reluctantly been passed over until it is possible to discuss the complete separation to be made under the Reforms between imperial and provincial heads of revenue, and the powers of taxation and borrowing that are to be conferred on Local Governments.

Some of the questions dealt with were in the past matters of keen controversy, owing, firstly, to the policy of half lights, and the absence on the part of responsible authorities of a full and clear exposition from time to time as difficulties were encountered and overcome. As in other currency systems, changes took place very quietly and without any flourish of trumpets. Criticism in the past was also due to the attempt to regard each part of the financial system, such as the paper currency and gold standard reserves in India and in London, as water-tight compartments instead of regarding them as part of the financial system as a whole. A third crop of criticisms was due to the difference of opinion that arose between India and London owing to differences of environment and local influences. Each side thought at times the other side unreasonable, and even short-sighted. As Sir James Meston, Finance Member of the Viceroy's Council, put it in his evidence before the Royal Commission on Indian Finance and Currency, 1913:

> All these tendencies rather meant cross-purposes at times, and did lead to cross-purposes, and there are records

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[1] Cd. 4956, 1909, p. 19, "Memorandum on some of the Results of Indian Administration during the past Fifty Years of British Rule in India."

of disputes on such points as the proper form of utilising the silver in the Gold Standard Reserve—whether it ought to be utilised as a loan or whether it ought to be utilised against investments in England. In regard to these particular points, I confess I think, reading the papers over again, that we were both right; we both had different points of view which the other side did not see. But what I am asked by the Government of India to say, and what I should like to put on record, is that that period of misconception has very largely disappeared, partly due to better personal acquaintance and personal relations, and also partly due to the larger and more extended system of non-official explanatory correspondence in supplement of the official despatches which pass between the two Governments.

II

The Balance of Trade

Before plunging *in medias res*, let us briefly refer to one or two fundamental facts which are of great importance in any examination of the financial machine. The first of these relates to the balance of trade, a question intimately connected with the maintenance of the parity of the rupee, and the arrangements for meeting the financial requirements of the Secretary of State in London. In ordinary years India possesses a large favourable balance of trade. Her exports of commodities are, as a rule, 50 per cent greater in value than her imports, as will be seen from the following table: [1]

[1] For further details see my annual review of the Trade of India for the years ending March 31, 1914, 1915, 1916, 1917, 1918, and 1919, issued by the Department of Statistics, India (Calcutta: Superintendent, Government Printing).

(In thousands of £.)

Period.	Exports, including re-exports (private merchandise).	Imports (private merchandise).	Excess of exports over imports of merchandise.	
			Actual.	Per cent.
Average of ten pre-war years	129,808	85,899	43,909	51
Average of five pre-war years	149,411	97,232	52,179	54
Average of five war years	149,405	98,534	50,871	52
1916–17	163,434	99,757	63,677	64
1917–18	161,703	100,283	61,420	61
1918–19	169,242	112,689	56,553	50

It is unnecessary to refer in detail to all the items entering into the balance of trade. In addition to the imports of treasure there are the imports of funds. There are also the hazy and hazardous "invisible" imports which cannot be reduced to the dulness of a statistical statement. A large part of these unrecorded or invisible imports consists of services rendered, to pay for which exports of goods take place. Charges for shipping freights and interest payments, investments abroad, remittances for families in England, the premiums of insurance companies, the profits of English banks and other companies or firms, are also of this nature. If we could estimate with accuracy—which we cannot—the value paid for such services as shipping freights, insurance, banking facilities, etc., provided by our creditors, we should be able to put on the opposite side of the account as invisible imports, chiefly imports of services, a value which would explain much, if not all, of the excess of exports over imports. In other words, there are more things in India's balance of trade than are dreamt of in the philosophy of the Indian trade returns. There is, too, the oft-told tale of the accuracy or inaccuracy of the trade statistics as actually recorded in the customs returns. An overvaluation of one per cent for exports and an undervaluation to the same extent for imports would in 1919 have affected the net balance by over £2,800,000 or 7 per cent of the balance. Again, the declared values of exports are taken at the market value quoted at the time of export, irrespective of the price at which the goods are sold. If the goods happen to be sold forward at prices lower than the market price for ready goods, as was the case last year in regard to jute manufactures, a considerable error in the values may arise. But all things considered, the Balance of Trade table in a latter part of this book shows that as a result of the war, with the persistent demand on the part of the Allies for goods of national importance and with the cutting off of imports of piece-goods, sugar, salt, kerosene, and a hundred and one other articles of necessity, the gap between exports and imports, or the so-called favourable balance of trade, increased from 1916–17. The reason for the permanent excess exists simply because there are other things to pay for besides imports, such as our liabilities in London, many of which are met by the Secretary of State. These net liabilities in 1917–18 of the Secretary of State or Home charges amounted to £24,000,000, 39 per cent of which was for railways, 26 per cent for military services, 20 per cent for interest on debt (excluding interest charged in the railway revenue and irrigation accounts), and 8 per cent for superannuation allowances and pensions. The following table summarises the main statistical data relating to this important question of India's trade balance :

(In thousands of £.)

	1909–10 to 1913–14 (pre-war quinquennial average).	1914–15 to 1918–19 (war quinquennial average).
Net exports (excess of exports over imports) . . .	52,179	50,871
Net imports of treasure and funds	52,464	27,294
(a) Council drafts, etc. .	28,416	20,097
(b) Treasure :		
(i.) Gold . .	19,242 } 24,048	5,204 } 7,196
(ii.) Silver . .	4,806	1,992
Balance of trade in favour of India	—	23,577
Balance of trade against India	285	—

At the risk of wearying the reader with so many repetitions on this subject, we must again point out that it is impossible to reduce all the items to the humdrum dulness of a definite table. At the same time let us add, as a Parthian shot, that what counts is the relation between exports and imports of every kind. This is the main cause of the fluctuations in the supply of and the demand for the money of one country in another, and so of the fluctuations in the rates of exchange.

III

The Absorption of Gold and Silver and Currency

A second factor, not unconnected with the balance of trade, to which a reference has just been made, is the absorption of the precious metals, a question which is a permanent wonder to students of finance in other countries. Year after year, in season and out of season, the precious metals are attracted to

India, where they are, as it were, lost to sight, being put in a large measure to non-productive uses. Before we examine the statistical data that have been collected with regard to a question which has to be squarely faced, we must remember one or two facts which are not always placed in their proper setting. Firstly, as the Report on Indian Constitutional Reforms [1] shows :

British India has two and a half times the population of the United States. The United Provinces and Bengal hold each as many people as the British Isles. We may compare Bihar and Orissa in respect of population with France, Bombay with Austria, and the Punjab with Spain and Portugal combined. In England and Wales, four-fifths of the people live in towns. India has many ancient and historic cities, but taken all together they hold but a tiny fraction of her enormous population. . . . In the whole of India the soil supports 225 out of 315 millions, and 208 millions of them get their living directly by, or depend directly upon, the cultivation of their own or others' fields. What concerns them is mainly the rainfall or the irrigation supply from wells or canals, the price of grain and cloth, the payment of rent to the landlord or revenue to the State, the repayment of advances to the village banker,[2] and the observance of religious festivals, the education of their sons, the marriage of their daughters, their health and that of their cattle. . . . The figure of the individual cultivator does not often catch the eye of the Governments in Simla and Whitehall. It is chiefly in the mass that they deal with him, as a consumer of salt or of piece-goods, or unhappily too often as the victim of scarcity or disease. But the district officer and his lieutenants know well the difficulties that beset him, and his very human needs ; and in the local revenue offices these make up nine-tenths of the public business done.

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[1] Chapter VI.

[2] Strictly speaking, not a "banker" but merely a moneylender who charges a high rate of interest for money lent.

In this picture of the Indian countryside we have most of the causes that make for the huge and distressing absorption of the precious metals. India, too, is almost fifteen times in point of area and seven times in point of population greater than the British Isles. This means that the circulating media have to cover vast areas, in many of which, it is true, currency has not yet percolated to any degree. The stream of rupees into these parts is like the stream of an oasis which gets lost in the thirsty sands of the desert. If means of communication are difficult, it is impossible for the circulating medium to move freely when its work, for example in moving the crops, has been completed. Education, too, is still neither widespread nor accessible. When it is remembered that 94 per cent of the population is illiterate, *i.e.* unable to read or write a letter in their own script, as compared with 1·6 per cent in Scotland, 1·8 per cent in England and Wales, 7·7 per cent in the United States, and 17·4 per cent in Ireland, and that it is only in the higher education of boys that our statistics will stand comparison with European countries, with America and with Japan, we have a key to one of the main reasons for the absorption of the precious metals. Education, as nothing else can, will drive away distrust. The perpetual see-saw of good and bad years, due to the vagaries of the monsoon, which is the jugular vein of Indian trade, does not increase the cultivators' trust in things. Added to these facts is the absence of any real banking system. Every one outside towns may be said to be a firm believer in the saying that every man should be his own banker. It is customary to measure the strength of a banking system by the number of branch banks and the amount of deposits or liabilities. If this be taken as an index, Indian banking may be said to be in its infancy. There are only 55 principal banks with 304 branches, and the deposits are £107,000,000. Thus India, although it is fifteen times in area and seven times in population greater than the British Isles, has only 93 per cent of the number of banks, 4 per cent of the number of branches, and 6 per cent of the deposits. When in a population of, say, 315,000,000 souls each man is his own banker, it will be clear how in these conditions absorption can increase on the slenderest of rumours. Experience, since the outbreak of the war, has shown this to be so. If on an average each man kept in his house or otherwise hid away two rupees per annum, or say ten rupees for a household of five, this would mean 63 crores of rupees. The three greatest requirements of India at the present time are—(i.) more and better education, (ii.) greater banking facilities, and (iii.) more adequate and easy means of transport. With these inadequately developed, absorption is bound to continue on a large scale, and our resources will continue to be dissipated in this appalling manner. Even in England, where the absorption is trivial as compared with that in India, writers on finance have noted the dangers of the problem. Mr. Hartley Withers in his *Business of Finance* believes

gold has got such influence upon the human mind, owing to centuries of habit and convention, that it is still regarded as the one commodity which can always certainly be relied upon in times of acute crisis. Even now, when it has been made clear that it is every one's duty to pay in all the gold they possess through their bankers, so that it may be used for war purposes, I have been lately told by many quite reasonable people in England, among them an economic professor, that they are still keeping a few sovereigns locked up in case of anything that may happen. I believe this prejudice in favour of gold to be so ingrained that any attempt to try to hasten the process by which substitutes for gold are used, these substitutes being mere tokens issued by a Government with no promise to pay gold behind them, might have disastrous effects. It will be a great economy if the day ever comes when peoples have sufficient confidence in their Governments and in their bankers to feel sure that pieces of paper issued by them will always be taken in exchange for goods without any intermediate process of exchange into gold and the exchange of the gold into goods. But it seems to me that it will take about a century of economic education before we can arrive at that ideal, and that if in the meantime we try to take short cuts we might find ourselves landed in a very uncomfortable position. An obvious first step would be to cease the coining of gold for internal use and to make credit instruments convertible into bar gold for purposes of international payment.[1]

If India had not its ingrained fondness for the precious metals, and if it had imported goods in place of such quantities of the precious metals, we should have been much better off. If the metals are hoarded in the form of jewellery, they are put to non-productive uses at the very time when these are required for productive purposes. For a long time to come a certain amount of gold will be required for marriages, which are very costly, since from time immemorial ornaments (not securities) are given to the bride. But with the spread of education and the gradual change in social custom the quantity required may

[1] Hartley Withers, *The Business of Finance* (John Murray), p. 61.
The Cunliffe Committee on "Currency and Foreign Exchanges after the War" (Cd. 9182, 1918, Para. 23) recommends that gold in internal circulation be avoided, and that it should be held in a central reserve as a backing for notes in circulation.

be proportionately reduced. If, however, in place of converting gold into jewellery or hoards, the gold were used in circulation, prices would tend to rise. If gold is idle, it is merely dead capital.

We may now turn to a few statistics with regard to the imports and absorption of gold which have been taken from the tables in a latter part of this volume. The net imports into India in the last twenty-five years have been the equivalent of no less than two years of the world's production. In the same period silver (including silver imported by Government for coinage) has been imported to an amount equal to the production of the world for eight years. The absorption of gold coin and bullion in the last forty-six years (*i.e.* from 1874 to 1919) has been £250,000,000, or five times the world's annual average production in the same period. The gold that has been absorbed has been made chiefly into ornaments or otherwise put to unproductive purposes. It has disappeared from sight. The following table shows the net imports by sea of gold and silver, net absorption of gold, and net imports of treasure (gold and silver) by land frontier:

		(In thousands of £.) (Government and private account.)
Net imports (imports *minus* exports) of gold (bullion and coin) from 1835–36 to 1918–19:		
(*a*) Coin	203,700	
(*b*) Bullion	112,800	
		316,500
During 25 years (*i.e.* to March 31, 1919)		179,430
Net imports. Ditto, annual average (1895–1919)		7,177
Net imports. Ditto, pre-war quinquennial average		18,767
Net imports of sovereigns since 1900–1901 [1]		94,416
Net imports of sovereigns, annual average in the same period		4,969

[1] Previous to 1900–1901 sovereigns were not shown separately in the sea-borne trade returns.

	(In thousands of £.) (Government and private account.)
Net imports of sovereigns, pre-war quinquennial average	11,680
Net absorption of gold (coin and bullion), 25 years (*i.e.* to March 31, 1919)	214,770
Net imports of silver from 1835–36 to 1918–19 . .	536,700
During 25 years (*i.e.* to March 31, 1919) . . .	217,825
Net imports of treasure [1] by land frontier during 25 years (*i.e.* to March 31, 1919)	5,037
Estimated total stock of gold in India [2]	93,000,000 oz.
Estimated total stock of silver in India [2]	3,729,000,000 oz.

In the pre-war year 1913-14 the absorption of gold coin (sovereigns) was over £12,000,000. In 1918-19, despite the fact that no real free market for gold existed, the absorption was £3,475,000. Although there was in the twenty-five years ending March 31, 1919, a net average import of silver amounting to R. 13,07 lakhs [3] (£9,000,000), there was, on the other hand, a net export of coined rupees. The average net exports of rupees in the same twenty-five years amounted to R. 1,03 lakhs (£686,000). Owing to the increasing demands in East Africa and Mesopotamia, the annual average export of rupees in the five pre-war years was R. 1,86 lakhs (£1,240,000), and in the five war years R. 2,34 lakhs (£1,560,000). As against this drain of rupees by sea, there is in ordinary times a net import of treasure including rupees across the frontier, a frontier which extends roughly over 6800 miles. Concurrently with the increase in the demand for rupees in India, there has recently been a similar increase in the exports across the frontier, and the returns bring this out in an interesting way. During

[1] Gold and silver are shown separately in the returns of land frontier trade from April 1916.

[2] See also Chapter X.

[3]

	India.		London.		Germany.
1913	1000 rupees	=	£66	=	1320 marks.
1919	1000 rupees	=	£84	=	3360 marks.

R. 1 lakh = R. 1,00,000.
R. 1 crore = R. 100 lakhs = R. 1,00,00,000, *i.e.* ten millions.

the last two years exports of silver from Burma to Western China across the frontier amounted to a total of R. 64 lakhs. This was due to some extent to the Chinese exporters of raw silk to Burma requiring payment in cash. There was, for example, in one month an export of R. 16 lakhs, mostly for the payment of a consignment of Chinese silk.

The extraordinary happenings in currency absorption in the last four years have been mentioned in the press and elsewhere with almost wearisome iteration. The statistics of this should be read, marked, and digested. The effect of a study of the tables is to leave the imagination gasping, but the astonishing, and perhaps fortunate, thing is that in spite of the shortage of rupees the convertibility of our note issue has been preserved. The following table summarises the data of absorption :

NET ABSORPTION OF CURRENCY

(In lakhs of rupees.)

	5 years' pre-war average (ending March 31, 1914).	Year ending March 31.				
		1915.	1916.	1917.	1918.	1919.
Gold (sovereigns)	10,99	7,48	—40	1,37	11,64	5,21
Rupees and half-rupees . .	8,78	—6,70	10,40	33,81	27,86	45,02
Subsidiary coins (four, two, one anna pieces, and single pice) .	62	—21	36	97	99	2,78
Currency notes .	3,39	—3,43	7,87	18,18	15,48	51,70
Total . .	23,78	—2,86	18,23	54,33	55,97	104,71

(— indicates return from circulation.)

The large absorption of rupees, half-rupees, subsidiary coins, and even notes, is very noticeable, and it prompts the question as to why the abnormal absorption should have taken place in the three very remarkable years ending March 1919. With the revival of the export trade in the autumn of 1915, consequent on the persistent demand of the Allies for munitions of war, there was a rise in the prices of our staple exports. This is seen from the following index numbers :

	1914.	1915.	1916.	1917.	1918.	1919.
Exports . .	100	102	103	117	125	150
Imports . .	100	101	126	170	211	268

It goes without saying that the currency required to move the crops in these three years, owing to the considerable rise in the prices of exports from 103 in 1916 to 150 in 1919, must necessarily have been greater than in previous years of lower prices. In other words, merchants required more rupees to complete their purchases; and even had a normal rate of the return of circulating media to banks and Government treasuries been observed, a considerable increase in the coinage would have on this account alone been necessary to finance trade. Secondly, it will be noted that in these three years prices of imports rose from 126 in 1916 to 268 in 1919, or 113 per cent. With this increase in prices there was more than a corresponding decrease in quantity. The volume of imports, for example, in the year ending March 1919, was actually 6 per cent less than in the corresponding period of 1918. The quantity of imported piece-goods—India's chief import—was in 1919 only 43 per cent of the pre-war normal imports. The plain fact was that imports were almost unobtainable from the Allies, and even when obtainable prices were such, owing to the increased cost of production, higher freights, insurance, and congestion on our railways, that the consumer was unwilling or unable to pay. Instead of the currency flowing back as in normal times to commercial centres after its release in the purchase of Indian produce to pay for imports, it remained *in situ* and in a state of wasteful inertness. In previous years absorption was, generally speaking, regarded as a measure of prosperity. In the four exceptional years 1916–19 we see that this was not completely true. We have the anomaly that imports were curtailed at a time of large exports. The war has shown that agricultural prosperity by itself is, when unaccompanied by a large demand for imports that is capable of being satisfied, a menace to the whole currency system, just as famine and widespread scarcity forcing rupees into circulation are the reverse. The agriculturist always looks on the rupee as a store of value, protected against climatic vicissitudes and the ravages of rats and white ants. To extract the rupee from hoards he must be given the things which he requires and adequate opportunities of spending. He is ignorant of the methods and benefits of investment.

In addition to these main reasons for absorption in war time, there are others of hardly less importance. The requirements of silver for ornaments have had to be met from metallic currency to fill the void created by the absence of gold and silver imports. The Government of India (Finance Department) Notification No. 1571 F., dated July 11, 1917, prohibited the import of silver into India except in the case of (i.) current silver coin of Government, (ii.) silver coin or bullion imported on Government account, and (iii.) silver coin or bullion imported under licence. Even before the date of prohibition imports of silver on private account fell, because of the rapid rise in the price of silver, and the impossibility of obtaining supplies. Some portion, therefore, of the silver metallic currency has been diverted to this purpose, and there is evidence from various sources that such has been and is still being used in the arts, mainly as jewellery. Moreover, it has not been possible to convert as usual part of the profits on the produce exported into gold bars and sovereigns since gold was unobtainable.[1] The pre-war average imports[2] of gold bullion were £9,155,000 (or R. 14 crores), and of sovereigns £12,484,000 (or R. 19 crores), a large part of which was used for melting down into jewellery. This lack of gold, rather than creating a panic, resulted in the hoarding of metallic silver. In this connection it is interesting to note that the bulk of the gold issued in India since the outbreak of war has found its way to Bombay, and to a less extent to Calcutta for use in the arts. The Controller of Currency believes that this is borne out from the marked increase in the number of private assays of gold conducted at the Bombay and Calcutta Assay offices and from circumstantial evidence that has since become available. The melting of gold as also of silver coin was declared on the 29th June, 1917 to be an offence under the Defence of India Rules. There has been a series of circumstances in the last four years that is not likely to occur, except on the rarest of occasions, such as a world war, viz. the persistent demand for munitions of war at extraordinarily high prices, combined with a more or less complete absence

[1] There was no free market for gold, and since June 1917 gold imported into India is acquired by Government Gold (Import) Ordinance, No. III., dated June 29, 1917. This has been superseded by the Gold (Import) Act XXII. of 1917.

[2] Total imports; *net* imports are given in Chapter III.

of imports of vital necessity to India, such as piece goods, sugar, salt, kerosene, and gold. It is to the combination of these economic causes that the huge absorption in the last three years of war must be mainly ascribed, although the uncertainty as to the future and the unusual restrictions placed on trade may have produced uneasiness in men's minds.

When these temporary and abnormal circumstances disappear, and imports, including imports of gold bullion for use in the arts, are available, a return of specie and notes is certainly to be anticipated. Recently (July 1919) rupees have been returning from hoards in a most satisfactory way, and in parts of Bengal the Bank of Bengal reports that notes are being asked for by producers, rupees being given in exchange. Government's silver balances in India in the Paper Currency Reserve in July 1919 were R. 46 crores as against R. 18 crores in July 1918, R. 26 crores in July 1917, and R. 28 crores in July 1916. It is more than a pious hope that with the spread of education, and with the introduction of a real system of banking, India will learn to abandon on its present scale its secular habit of hoarding. If, in place of importing 200 million ounces of American silver obtained through the Pittman Act of April 1918, we had preferred credits in America at 5 per cent per annum, we should have saved £2,000,000 or R. 300 lakhs per annum in interest alone, more than sufficient to pay the entire cost of education in Bengal for a twelvemonth. The danger of absorption on the scale of the Indian silver crisis of 1918 is a very real one. It may reduce the rupee balances to a low level, and thereby jeopardise the convertibility of the note issue.

CHAPTER II

THE INDIAN CURRENCY SYSTEM BEFORE THE WAR

AND now to turn to the practical details of the Indian currency system. In order to leave no cause for doubt as to the working of this interesting but delicate piece of mechanism, it will be necessary to make more than a cursory examination. We shall see how the war, which has quickened men's thinking in regard to currency matters, has made us recognise as urgent what had hitherto passed for being academic, speculative, and controversial. It has placed many standing questions of currency policy in a wholly new light.

I

THE CURRENCY IN CIRCULATION AND IN RESERVES

Under the Indian Coinage Act (Act III. of 1906) and the Indian Paper Currency Act (Act II. of 1910) the currency in circulation and in Government and bank reserves consisted before the war entirely of rupees and half-rupees, subsidiary coin of silver, nickel, and bronze, notes, and to some extent of gold. Rupees, half-rupees, sovereigns, half-sovereigns, and "universal" notes are unlimited legal tender. The note issue is a Government issue and is in the form of promissory notes of the Government of India payable in rupees to bearer on demand, a reserve, known as the Paper Currency Reserve, being held in India and in London to ensure convertibility. Banks since 1862, in which year the previously existing notes of the Presidency banks were withdrawn, do not possess the right of issuing notes. By Act XVII. of 1835 the rupee of 180 grains troy, $\frac{11}{12}$ths fine, with the half-rupee, became for the first time throughout India "legal tender in satisfaction of all engagements, provided the coin shall not have lost more than two per cent in weight, and provided it shall not have been clipped, or filed, or have been defaced otherwise than by use." Subsidiary coins by the same Act were legal tenders to the extent of one rupee. By Section 11 of Act III. of 1906, "gold coins, whether coined at His Majesty's Royal Mint in England or at any Mint established in pursuance of a Proclamation of His Majesty as a branch of His Majesty's Royal Mint, shall be a legal tender in payment or on account at the rate of fifteen rupees for one sovereign, provided that such coins have not been called in by any Proclamation made in pursuance of the Coinage Act, 1870, or have not lost weight so as to be of less weight than that for the time being prescribed for like coins by or under the said Statute as the least current weight." Sections 12, 13, and 14 of the same Act enacted also that

(1) "The rupee and half-rupee shall be a legal tender in payment or on account, provided that the coin (*a*) has not lost in weight so as to be more than 2 per cent below standard weight, and (*b*) has not been defaced" (Section 12).

(2) " The quarter-rupee and eighth of a rupee shall be a legal tender in payment or on account for any sum not exceeding one rupee, provided that the coin (*a*) has not lost in weight so as to be more than such percentage below standard weight as may be prescribed as the limit of reasonable wear, and (*b*) has not been defaced " (Section 12).

(3) Nickel coin " shall be a legal tender in payment or on account for any sum not exceeding one rupee " (Section 13 of Act III. of 1906, and Section 7 of Act IV. of 1918, the latter providing for the nickel two-anna piece in addition to the one-anna piece. The two-anna piece was first coined in 1918).

(4) Bronze coins (the pice or quarter-anna, the half-pice or one-eighth of an anna, and a pie, being one-third of a pice or one-twelfth of an anna) "shall be a legal tender in payment or on account for any sum not exceeding one rupee " (Section 14).

Act II. of 1910 provided that a

" universal currency note shall be a legal tender at any place in British India, and any other currency note shall be a legal tender at any place within the circle from which the note was issued, for the amount expressed in the note in payment or on account of (*a*) any revenue or other claim, to the amount of one rupee or upwards, due to the Government of India, and (*b*) any sum of one rupee or upwards, due by the Government of India or by any body corporate or person in British India, provided that no currency note shall be deemed to be a legal tender by the Government of India at any office of issue " (Section 15, Act II. of 1910 as amended by Act XIX. of 1917).

This last sentence provides, of course, for the convertibility of the notes. These notes are issued in denominations of 1, 2/8, 5, 10, 50, 100, 500, 1000, and 10,000 rupees. They are issued without any limit at any paper currency offices against rupees or gold. It is only, however, at the seven currency offices or head offices of issue (into which India is divided for the purpose of the note system) *that* notes are *legally* encashable. Notes from one to one hundred rupees, as universal notes, are universal legal tender and are encashable as of right at the head offices of issue in all the seven circles. Notes other than universal notes are legally encashable at the currency offices from which they were issued (Section 16, Act II. of 1910). Arrangements were also made for the issue and prompt encashment of notes at a number of the branches of Presidency banks. Facilities for encashment, other than those prescribed by law, were given at most of the Government treasuries, and, in practice, notes were freely encashed there within reasonable limits. As the Civil Account Code puts it somewhat picturesquely and even naïvely :

> Although no person has legal claim to obtain cash for notes presented at a Government treasury, Government desire that this accommodation be given whenever possible, and that all applications for exchange should be granted provided that the coin or notes applied for are available, subject to any general or special limitations which the Accountant-General may find it necessary to impose from time to time. . . . The Treasury Officer should, whenever he is satisfied that no inconvenience will be caused to the treasury by the encashment of any universal notes or home notes [1] likely to be presented, exhibit in some conspicuous place a placard in English and the vernacular notifying that he is prepared to give cash for such notes. If the Treasury Officer can spare cash for only a limited amount of notes he is at liberty to notify that he is prepared to give cash for universal notes only or for notes of the lower denominations only. Care should, however, be taken that no corrupt or undue preference be shown to any individual. . . . Universal notes and home notes to a limited extent may be cashed for the convenience of travellers

[1] *I.e.* notes of the circle in which the treasury is.

when the treasury is unable to cash them for the general public.[1]

The instructions, bred perhaps in the tepid atmosphere of a Government office in the plains, ended with a remark—"Visitors to hill sanitaria, however, cannot be regarded as travellers."[2]

We have so far included as currency merely coin and currency notes. We might, however, with perfect reason widen our definition of currency to include anything either of metal or paper commonly accepted in payment for goods and services. This would include cheques, but it would exclude bills of exchange since these bills are a highly specialised means of payment and do not circulate in the hands of the public. There was a large increase in the use of cheques in towns, especially in the five chief ports. Had it not been for the fact that (1) stamps on cheques are necessary in this country as they are not in the United States, and (2) signatures in the vernaculars are not ordinarily permitted by the banking world, the development of the cheque currency might have shown a very much greater increase. Nevertheless a large part of the purchasing power was in the form of bank deposits operated on by cheque, legal tender money being required only for the purpose of actual public circulation in connection with retail transactions and the payment of wages, and for reserves held by the banks against deposits. The following table summarises the increase in this form of currency so far only as returns are available, *i.e.* for the five chief ports—Calcutta, Bombay, Madras, Karachi, and Rangoon. They do not include up-country cheques.

[1] Civil Account Code, §§ 610 and 611 (vol. i.).
[2] In the revised instructions this has been omitted.

If, for example, a cheque is drawn in Bareilly on a firm in Calcutta, the latter firm would pay the cheque into their account with a bank in Calcutta which collects the amount either through the bank's own branch in Bareilly or through another bank's branch or similar agency. It does not pass through the Clearing House. The table gives the circulation of other forms, such as rupees and notes. The methods by which these results were obtained are described in subsequent chapters.

CURRENCY IN CIRCULATION (10 YEARS).
(In crores of rupees.)

	PRE-WAR PERIOD.					WAR PERIOD.				
	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.
Rupees . . .	1,86	1,84	1,82	1,91	1,87	2,04	2,12	2,27	2,19	2,28
Notes (active circulation on March 31) .	40	40	45	47	50	44	53	67	84	1,34
Total . .	2,26	2,24	2,27	2,38	2,37	2,48	2,65	2,94	3,03	3,62
Cheques cleared .	4,65	5,16	5,89	6,50	5,38	5,63	8,09	9,01	13,96	..
Grand Total.	6,91	7,40	8,16	8,88	7,75	8,11	10,74	11,95	16,99	..

Internally we were always prepared to discharge our indebtedness on a silver basis, viz. rupees. Rupees (and half-rupees, which ranked as we have seen with rupees) were unlimited legal tender and inconvertible. The Government note issue was convertible into rupees. Apart from the investments, gold, and silver bullion in the Paper Currency Reserve, the notes actually represented rupees. Sovereigns were also unlimited legal tender convertible at the rate of R. 15 [1] to the £, but rupees were not similarly convertible by law into sovereigns at that rate. There was in

[1] When the Committee on Indian Currency now sitting (July 1919) reports this rate will be changed. The rupee equivalent now fixed by Government for sovereigns imported is R. 12.4.6 per sovereign. See Addenda and Corrigenda, p. 483.

this respect one-sided convertibility. Before the war sovereigns were sometimes given in exchange for rupees, but this was only as a matter of administrative convenience. Externally we were always ready to meet our obligations in international currency—gold. We were prepared to discharge external indebtedness on a gold basis by the export of gold or by the sale in India of gold bills ("Reverse drafts") on the Secretary of State. Our currency system was a gold standard. India had realised the truth of what that prince of economists, David Ricardo, held at the time of the bullionist controversy one hundred years ago when a long war had ended, and it was necessary, as at present, to right currency matters in the period of reconstruction. We realise that a currency is in its most perfect state when it consists of cheap material (*i.e.* cheap in comparison with gold) for internal purposes, and of an equal value with the gold which it professes to represent. So long as gold is available for the discharge of international indebtedness at an approximately fixed rate in terms of the national currency, it is unimportant whether gold is the *national* currency, and it is unnecessary to redeem this internal currency in gold. Indeed there was a saving of £26,000,000 from the year 1900–1, when the Gold Standard Reserve was established, to the pre-war year from the use of token coins in place of gold. The stability of our system depended on (1) a sufficient reserve of rupees being held in India whereby international currency could be changed into national currency, mainly rupees and notes redeemable in rupees; and (2) a sufficient accumulation of sterling resources abroad by which national currency may be changed into international currency. When these conditions were fulfilled the foreign exchanges with our customers possessing a gold standard were maintained at or within the gold specie points. Although under this form of gold standard the national currency is not redeemable in gold except for foreign remittances, the system works almost undistinguishably from a full gold system. Under the full gold standard gold may or may not be a large part of the circulating media of the country. The great bulk of international payments would be discharged from the reserves of banks, and convertibility would depend on the free convertibility into sovereigns at banks and treasuries, and not on Government's readiness to sell for gold bills payable in silver and under certain conditions for silver bills payable in gold. Government themselves manage the currency machine. It is they who control the location, size, and employment of the reserves in the full blaze of public criticism levelled in the Imperial Legislative Council, the Press, and elsewhere. There is no central or State bank to play the *rôle* similar to that of the Bank of England, which is the pivot of the English gold standard. Were there a bank or an amalgamation of banks which among their other duties would do the currency and banking work at present performed by the Government of India in the Finance Department, much of the criticism would probably disappear. In the Indian banking system there is no bank comparable to the Bank of England, the Bank of France, or the Bank of Australia (founded as recently as 1912), which play a pivotal part in the English, French, and Australian financial systems. The Governments of these busy countries are relieved of much trying and difficult work in questions of finance, pure and simple, and as the work is not done by a Government Department *coram publico* but by the banks themselves, little is said or heard about their financial operations, which, human nature being what it is, command the utmost confidence.

The Indian system of currency is an improved gold standard, and is frequently known as a gold exchange standard, *i.e.* a standard in which the national or local currency is not redeemable in gold except for international dealings, *i.e.* foreign remittances are provided by Government in gold at a fixed maximum rate in terms of the national or local currency. In such a system gold does not circulate to any appreciable extent. The term "gold exchange standard" is somewhat unfortunate, since it is difficult for the ordinary mortal to fathom its real meaning. It is doubly unfortunate in that it gives rise in some men's minds to a less satisfactory and to a less stable form of currency than the unique and more expensive system that obtains in the United Kingdom. This latter doubt has proved to be illusory, as the system of currency in India to-day is cheap, automatic, and stable. This doubt may be illustrated from Professor Nicholson's interesting book on *War Finance*.[1]

Professor Nicholson writes:

> In a review in the *Quarterly Journal of Economics*, May 1917, Mr. H. Parker Willis, of the Federal Reserve Board, expresses the opinion, with which I entirely concur . . . the gold exchange standard system is available only for dependent countries. In short, it is not a monetary system, but a connecting link between an isolated market and the broader market to which it looks for support.

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[1] Professor J. Shield Nicholson, *War Finance*, p. 61 (P. S. King & Son, London).

These remarks show a serious misconception of what the Indian gold exchange standard is in its actual everyday working, and the suggestion is not only misleading but even mischievous in regard to a system of currency which has become and must become increasingly popular.

II

The Balances of Government in and outside India

At this stage a slight digression must be made to explain the balances or reserves of Government. This is a question of paramount importance to the working of our currency system, the stability of our sterling exchange, and thus to the progress of Indian commerce and industry. The problem is often a tantalising one because we are apt to forget two hard facts. In the first place these balances or reserves are kept in India in three compartments:

1. In treasuries;
2. In the Paper Currency Reserve; and
3. In the Gold Standard Reserve.

In London these are also maintained in three compartments by the Secretary of State:

1. In the Home Treasury of the Government of India;
2. In the London branch of Paper Currency Reserve; and
3. In the London branch of the Gold Standard Reserve.

The Paper Currency Reserve may temporarily[1]

[1] "During the continuance of the present war and for a period of six months thereafter" (Act XIII. of 1918).

be kept in part elsewhere than in India and London, as, for example, on March 31, 1919, there was silver bullion belonging to India that had not been shipped from the United States, but against which notes had been issued in India as provided by law. Notes might also have been issued in India against the deposit of gold in the Dominions, or against gold and silver in transit between India, England, and the Dominions. But we must not complicate matters. We may neglect for the moment this fact regarding the Paper Currency Reserve and assume, an assumption which is to all intents and purposes correct, that our balances or reserves are held only in India and in the great money market of the world—London. Secondly, there are transfers between these three compartments not merely in India or in London, but between India and London. At first sight this is apt to bewilder and even terrify the reader, but when analysed it is clear that the difficulties are more apparent than real. They are not Chinese puzzles. To understand the manipulation of these balances is not a case of chasing rainbows over the mountain-tops.

The titles of these balances indicate to some extent the object for which the funds are required. In the last analysis, however, these funds, balances, or reserves constitute one single fund, and have not, in theory or in practice, been restricted to the objects indicated by their names.

(1) *In India*

(1) Firstly, there are the Treasury balances. These balances meet the current expenditure on revenue and capital account of the Imperial and Provincial Govern-

ments in India. A glance at the coloured map will show the distribution of these treasuries throughout the length and breadth of India. These treasury balances are not only kept in district and sub-district treasuries, but are also kept in the Presidency banks on deposit, and in what are known as Reserve treasuries in the three Presidency cities (Calcutta, Bombay, and Madras) which hold the balances in excess of immediate requirements. The working balances, in addition to meeting current expenditure on revenue and capital account of the Supreme Government (the Government of India) and Provincial Governments, have to meet (1) the expenditure of district and sub-district boards, and municipalities for which Government act as banker; (2) the funds of Government savings banks; and (3) miscellaneous funds and services, such as the general provident fund, funds in court, etc.

(2) Secondly, there is the Paper Currency Reserve. This secures the convertibility of the currency notes, and there is no limitation to the *locale* of this reserve in India. It may be kept either in currency offices and in the Controller of Currency's Office, or in what are called "currency chests" in up-country treasuries and Presidency bank branches. These currency chests contain part of the reserve that is held against currency notes under Act II. of 1910. It is therefore kept quite separate from the treasury balance and treasury accounts. Even in the branches of Presidency banks (which do the Government treasury business) the currency chest is under the charge of Government officers. Primarily these chests afforded facilities to the public for exchanging coin for notes and notes for coin. Their use as a means of avoiding the transfer of coin is now their more important function.

The ordinary exchanges with the public in regard to notes are made by the treasury, the currency chest being used as a reserve when the proportion of notes or coin in the treasury becomes inconveniently large. If the chest can give no assistance, the facilities afforded to the public are stopped. Coin may be taken out and notes deposited or *vice versa*, or one description of notes or coin may be exchanged for another. Only under orders of the Head Commissioner of Paper Currency (the Controller of Currency), the Commissioner of Paper Currency, or the Deputy Commissioner of Paper Currency can the total amount in the chest be altered. We shall see shortly below how these remittances are made in practice.

(3) Thirdly, there is a fund, the Gold Standard Reserve, for the maintenance of the exchange value of the rupee with the sovereign. Since October 1917 no part of the Gold Standard Reserve has been held in India. A reference to this point will be made in a subsequent chapter.

(2) *Outside India*

The following funds are held outside India :

(1) Treasury Funds which are required to meet the liabilities of the Government of India in London. This includes not only the Home charges on revenue account (£20,000,000), but also the expenditure on capital outlay of most of the Indian railways (£6,000,000).[1] The Secretary of State sells ordinarily each week Council drafts on Calcutta, Bombay, and Madras, and in this way is placed in funds to meet such expenditure.

[1] The average figure—not the figure for any one year.

(2) A branch of the Paper Currency Reserve. The Indian Paper Currency Act empowers the Secretary of State to hold a portion of the Reserve in the shape of gold in London, and, since the war, in British Treasury Bills, and this enables demands for Council drafts on India to be met at times when it might be inconvenient or impossible to pay these drafts from treasuries. This gives a certain elasticity to the currency system. This system is also useful in connection with the purchase of silver, and, as will be shown later, as a support to exchange.

(3) The Gold Standard Reserve, the object of which has already been described.

The disposition of these balances before and after the war is shown in the summary table on following page, which brings out the striking changes, especially in regard to our gold holdings.

By the manipulation or interchange of the balances or reserves in India economy in the movement of specie is possible not only in India itself, but also between India and London. This economy in the internal movement of specie is an important factor in a country such as India, which not only is as large as Europe without Russia, but also lacks in many parts the blessings of modern civilisation, viz. easy and rapid means of communication. Government play the chief part in the distribution of currency between the centres of trade and the interior through their numerous treasuries, sub-district treasuries, and currency agencies. The treasuries and the Presidency banks (which undertake Government treasury work in those districts in which the bank has branches) receive the revenue (land revenue, excise, and other taxes) and make disbursements. A portion of the treasury surplus

DISPOSITION OF BALANCES

(In thousands of £.)

		India.			England.			Total.			Percentage increase or decrease in 1919 over 1914.
		March 31			March 31.			March 31.			
		1914.	1918.	1919.	1914.	1918.	1919.	1914.	1918.	1919.	
Treasury		15,608	15,325	17,318	8,133	10,625*	8,715*	23,741	25,950	26,033	+10
Paper Currency Reserve	Silver	13,688	7,194	21,568	..	..	..	13,688	7,194	21,568	+58
	Gold	14,957	17,900	11,580	6,100	450	82	21,057	18,350	11,662	−45
	Securities	6,667	6,667	10,720	2,666	34,319	54,999	9,333	40,986	65,719	+604
Gold Standard Reserve	Silver	4,000	..	..	..	..	..	4,000	..	..	..
	Gold	..	..	..	4,320	..	..	4,320	..	..	..
	Securities	..	..	..	17,165	28,453	29,730	17,165	28,453	29,730	+73
	Cash placed at short notice	..	..	..	25	6,000	6,016	25	6,000	6,016	+23,964
Total Gold in Paper Currency Reserve and Gold Standard Reserve		14,957	17,900	11,580	10,420	450	82	25,377	18,350	11,662	−54

* In addition to the Special Reserve of £20,000,000 in 1918 and £7,000,000 in 1919 excluded from the table.

may be transferred to the local currency chests, a corresponding amount being transferred from another currency chest to Treasury, or at headquarters from the Currency Reserve to the Reserve Treasury. Transfers through the Currency Department, or in the parlance of the Finance Department, "through Currency," are the recognised means by which the requirements of trade are met. These are simple and convenient. A large firm, for example, in Calcutta may desire in a district headquarters where there is no branch of a Presidency bank,[1] say Mymensingh, a lakh of rupees to pay for jute. This firm pays the amount into Currency in Calcutta *plus* a small premium. Next day or on the same day the telegraphic transfer purchased by the firm is honoured from the currency chest in Mymensingh, the amount being made over there to the firm's agents. Similarly a firm in Bombay pays 20 lakhs, either direct into the Currency Office or through the Bank of Bombay, an adjustment in the latter case being made in the Currency Office by the transfer of an equivalent amount from Treasury to Currency. A receipt is given, and 20 lakhs of rupees are paid, usually in notes from Currency in Calcutta. There was in these cases no movement of specie by rail from Calcutta to Mymensingh or from Bombay to Calcutta. The telegraph was sufficient.

Except where treasuries are managed by the Presidency banks, Government keep their own cash balances. Notwithstanding the economy in the transfer of specie, lakhs of rupees are sent up-country

[1] Government do not give transfers on towns where there is a branch of a Presidency bank, as the bank itself would give the transfer, and Government do not compete with the bank which does their treasury work.

from the ports every year to move the wheat and seed crops of Northern India, the jute and rice crops of Bengal, the cotton crop of Bombay and the Central Provinces, the rice crop of Burma, and the cotton and ground-nut crops of Southern India. A portion of the circulating medium is stored away or converted into ornaments by the peasant, while the main portion returns to Government treasuries in payment of land revenue and other taxes, to the tills at railway stations, and to the all too few branch banks. From these the currency gradually flows back to the ports when the Secretary of State's Council drafts are met. By means of drafts on the Government of India, Council Bills and T.T. (Telegraphic Transfers), facilities are given for remitting funds to India in order to assist in liquidating the favourable balance of trade. The drafts are sold weekly on Tuesdays at the Bank of England to the Exchange banks and large firms. These find their way on arrival in Calcutta, Bombay, or Madras to the Presidency banks, at which payment is made from the surplus balances. Outside the Paper Currency Reserve there is no large excess or surplus stock of rupees to provide for immediate demands such as the increased demands for rupees for trade purposes. This rupee balance, therefore, in the Paper Currency Reserve is closely, sometimes anxiously, watched by the currency sentinels in the Finance Department of the Government of India, since this is the barometer which indicates when fresh coinage is required. Although Council drafts are limited only by the resources available in India, there was a standing notification before the war that Council bills would be sold in unlimited amounts at a maximum rate of 1s. $4\frac{1}{8}$d. per rupee. The cost of sending gold to India was not, of course, constant, but on the average the cost of freight, insurance, and the loss of interest did not exceed $\frac{1}{8}$d. and at times was less than $\frac{1}{8}$d. per rupee. If the Secretary of State refused to sell freely at 1s. 4$\frac{1}{8}$d. per rupee gold flowed into India and was changed into rupees. When London was a free market for gold the upper limit to the fluctuations of exchange was automatic, and independent of the Secretary of State's action. In such a period of falling exchange as in the crisis of 1907–8, when the rupee was tending to fall below 1s. 4d., the cost of remitting sovereigns from India was in the neighbourhood of $\frac{1}{8}$d. per rupee, but the Government of India were not bound to give sovereigns for rupees, so there was no automatic lower limit. As in 1908 gold bills (Reverse drafts) on the Secretary of State were sold at 1s. 3$\frac{29}{32}$d. The fact that the Government of India decided on such a policy, viz. to support exchange to the full extent of their resources, inspired confidence and so reduced the demand for drafts at a time of financial stringency, the period when a feeling of panic is always liable to occur. It is interesting to note the two results that followed from the sale of these gold bills on London. In the first place, the amount of the bills sold in India and paid out of the reserves in London was the equivalent of an increase in exports, and this tended to strengthen, if not to maintain exchange. Secondly, as Government withdrew the proceeds of the sales of these bills which they placed in their balances in India, they withdrew rupees from circulation and contracted the currency. This tended to increase exports by lowering prices and to diminish imports.

We have said, perhaps, enough for the present regarding the beautiful elasticity of our currency system. We need only add that the stability of exchange, as experience has taught us in 1908 and 1918, depends upon a sufficient reserve of coined rupees in our balances to convert international currency into Indian currency, and also upon a sufficient reserve of sterling resources in gold, of very liquid resources in the form of money at call, and a certain amount of liquid resources in the form of investments.

III

Rupee Coinage before the War

There was no coinage of gold at the Indian Mints before the war, and for more than a quarter of a century (*i.e.* since 1893) the Mints had been closed to the unrestricted coinage of silver. Although there was no restriction upon the import of silver, it could not, as the Mints were closed to the free coinage of silver, be taken to the Mints and coined into rupees. If imported on private account it was sold either to Government for coinage or to bullion dealers for the arts, mainly for conversion into jewellery. Silver for coinage was ordinarily imported on Government account. The issue of rupees from the Mints was as automatic as before the closing of the Mints. Coinage depended entirely on the response of trade demands, *i.e.* rupees were coined in payment of Council drafts, or in order to exchange at the currency offices for gold coin. The Secretary of State sold his drafts on India to meet his own requirements and the requirements of trade, while the Government of India met these drafts from the supply of coined rupees in

India. Before the war not a single rupee was issued and put into circulation in India except on demand, either for the payment of Council drafts or for issue in exchange for gold, the two main ways in which the circulation of rupees could be increased. In neither of these cases could the issue of rupees be refused. Coinage operations in the period preceding the outbreak of war were so organised that 24 crores of rupees in the Paper Currency and Gold Standard[1] Reserves were held at the beginning of the busy season (on November 1), and coinage was so regulated that in a year of heavy absorption there would be 18 crores left in the Reserve on May 1 (*i.e.* at the end of the busy season) and 24 crores on the same date in a normal year. Standards were formulated so that coinage might be undertaken automatically, or stopped according to a change in conditions during the year. A programme was arranged for the season as a whole, the position was reviewed from month to month, and coinage arranged for in the light of this examination. The Secretary of State (who does the buying of the silver) thus received timely warning. As long ago as 1904 a weekly statement was submitted to the Government of India by their chief currency officer, showing the balances of silver coin in the Reserve, the balances of bullion in the Mints, and on its way to the Mints, with probable dates of arrival, the time which would be taken to coin that bullion working at full strength, and the probable absorption of rupees in the next quarter, based upon the average absorption of that quarter for the previous three years. This was introduced to regulate the additions

[1] There is now no silver holding in the Gold Standard Reserve.

to currency closely in accordance with the actual requirements of the particular season of the year. Even if the forecast of Government was not absolutely correct and more rupees happened to be coined than were immediately required, all that occurred was that these rupees remained in the reserves or coffers of Government until demanded for actual circulation, *i.e.* in payment of Council drafts or in exchange for gold. We might even go further and say that no interest was lost even in such a hypothetical case as overcoinage because, if the silver had not been purchased and coined, it would have been in the form of ear-marked gold belonging to the Paper Currency Reserve in the Bank of England. This "ear-marked" gold does not appear in the Bank of England's accounts. It earns no interest and is merely in safe deposit. Hence the Government of India, if they happen to be holding a stock of rupees for an emergency, cannot be charged with foregoing a large amount of interest that they might otherwise have earned. To say that Government suddenly lost their head and plunged into the coinage of rupees was the purest rodomontade. The issue of rupees was dependent entirely on the demands of trade and was completely automatic. If the trade overestimated its requirements, the rupees came back to Government and were converted into international currency, if required, *i.e.* into gold or gold bills (Reverse drafts). Those who close their eyes to these facts and prate of a redundancy of rupees skate over the difficulties of the problem with unconvincing lightness and agility. They fail to see that no more rupees have been kept in the Government reserves than were necessary, and coinage in anticipation of requirements was not greater than was absolutely required. We feel inclined to treat those financial Hotspurs who leap to hasty conclusions and aver that the coinage of rupees was faulty, and led even to redundancy in the offensive sense of the term, like the mimic and acrobat in the *Republic* of Plato:

> We will fall down and worship him as a sweet and holy and wonderful being; but we must inform him that in our state such as he are not permitted to exist; the law will not allow them. And so when we have anointed him with myrrh and set a garland of wool upon his head, we shall send him away to another city.

IV

An Increase and Decrease in the Circulating Medium

When the exchanges were favourable gold and funds in the shape of Council drafts flowed freely into this country, and an increase in the circulation of legal tender money was the natural concomitant of this expansion in trade. In the section on coinage we saw that the circulation was increased by (*a*) the import of gold; (sovereigns, if imported for currency, were ordinarily presented at currency offices for conversion into rupees, or notes, or both, the rupee balance always being kept at a suitable level by the fresh coinage of rupees on the part of Government to meet the trade demands); (*b*) the import of funds (Council drafts). These Council drafts were paid usually from "Treasury" or from "Currency" in India.

When exchange tended to become unfavourable owing to a failure of the monsoon or a commercial crisis, exports fell off, and it became profitable to export gold or (more frequently) gold bills on London (Reverse drafts). Internal circulation, therefore, apart from the normal demands for hoarding (including jewellery which was only partially supplied from currency), was by this means diminished, and the proceeds obtained from the sale of Reverse drafts were locked up in Government coffers until values readjusted themselves and a demand for currency again arose.

An increase in circulation sometimes occurred from the return of gold and rupees from hoards into active circulation. If the metallic currency flowed into Government balances or reserves, and was there locked up, the circulation decreased. This was especially the case during a period of scarcity or famine. In the year ending March 31, 1915, owing chiefly to the commercial stagnation after the first alarms of war, nearly seven crores of rupees and three crores of notes returned from absorption, *i.e.* from hoards and circulation. These amounts, however, did not go into active circulation, but into Treasury balances, and the circulation of rupees in 1914, as will be seen from the statistics of rupee circulation, fell by four crores or 2 per cent of the circulation of the previous year,[1] while notes fell by 3 crores or 6 per cent of the net circulation on the last day of March 1915.

Currency in circulation was increased but to a small extent by the net import (imports *minus* exports) of rupees and sovereigns. The net import of sovereign has already been referred to. If the sovereigns went

[1] *Vide* Table No. 16.

straight into circulation and were neither converted at the currency offices into notes or rupees nor hoarded, the circulation increased. Both in the sea-borne and land frontier trade there was a net export of rupees. In the last five war years, in addition to a rupee coinage of R. 106 crores (£71,000,000), there was a net import of R. 39 crores (£26,000,000) of gold, of which R. 14 crores (£9,000,000) were in sovereigns. In the same period gold was absorbed either for hoards, the melting-pot, or circulation to the extent of R. 56 crores (£38,000,000). In the same period the net exports of rupees in the sea-borne trade were R. 898 lakhs or an annual net export of R. 180 lakhs.

To turn now to the increase and decrease of currency in circulation by means of increasing or decreasing the branches of the reserves either in London or in India. Let us take in the first place investments on behalf of the Paper Currency Reserve which may be made in India or in London. Investments were made by the Secretary of State out of funds at his disposal, ordinarily from Treasury funds. If he increased his investments in the Paper Currency Reserve, a reverse transfer on receipt of advice of such investments was made in this country from Currency (the Paper Currency Reserve) to Treasury (Treasury balances) of an amount equivalent to that invested in London. In other words, currency notes were made over to Treasury in India. This had the effect of increasing the note circulation and therefore the total currency in circulation in India. The effect on the Treasury position was to transfer funds from London to India. If the Secretary of State met his requirements by withdrawing gold from his Gold Standard Reserve or Paper Currency Reserve, the Government of India would simultaneously make a transfer from Treasury to the corresponding Reserve (the Gold Standard Reserve or the Paper Currency Reserve). There was a decrease in circulation in India. The net result on the Treasury position was a transfer of funds from India to London. In the case of investments in India the procedure was somewhat as follows. Let us suppose that an increase in the investments was decided on in India, say in Calcutta, as it was in that city the investments were usually made. If the invested portion of the Paper Currency Reserve were increased by R. 50 lakhs, a transfer would be made of R. 50 lakhs from Currency to Treasury, and the equivalent in investments (Government Promissory notes) placed in the Paper Currency Reserve. If the Secretary of State sold part of the invested portion of the Paper Currency Reserve in London, he could ear-mark gold for the Paper Currency Reserve (in London), and in India the note circulation would not be reduced, but the total metallic portion of the Paper Currency Reserve would be strengthened. The Secretary of State could also place the proceeds to Treasury balances or to the Gold Standard Reserve in London, corresponding payments in the opposite direction being made in India. If investments in the Paper Currency Reserve were reduced in India Government would realise the investments and pay the proceeds into the Paper Currency Reserve, retiring, of course, the notes.

Lastly, with reference to the design of our coinage in this period. If a criticism might be made it is that everything is apt to be sacrificed to convenience and there is little artistic beauty in the coins. The nickel pieces are a striking example of this. The coins are extremely convenient and difficult to counterfeit. But that is perhaps all. They are rigid in outline and ugly in design, lacking all the beauty of line, the intellectuality, the grandeur, and mastery of technique possessed by Oscar Roty, Chaplain, Dupuis, Dubois, Botée, and others. We are in this country living in an inartistic age, as Sir Rabindranath Tagore would say. We require something of the spirit of Benedetto Pistrucci, who designed St. George and the Dragon on the English sovereign. It was Gibbon who said in his masterpiece that if all the historians were lost, medals and inscriptions would be sufficient to record the travels of Hadrian. Some future historian of India, should the records of this period be few and far between, might possibly be inclined to conclude from our coinage that this was a period of great commercial development of high jute and cotton mill profits, a period, in short, when commerce flouted completely the artistic spirit.

CHAPTER III

THE INDIAN CURRENCY SYSTEM IN WAR TIME

I

THE TWO WAR PERIODS

WE now take up the recital of the main incidents during the remarkable period, 1914 to 1919. We propose to answer three questions: (1) What has been the effect of the war on the Indian Currency system? (2) What are the reasons for the rise in exchange? and (3) What are the probable difficulties to be guarded against in the near future as a result of this rise in exchange and in the gold price of silver?

It is unnecessary, perhaps, to emphasise that our system of currency, like that of other countries, is not on an absolutely permanent basis, and in our opinion never will be on such a basis. We have, therefore, especially after a great war, to be prepared for difficulties which may have to be encountered from time to time. This war period divides itself conveniently into two parts: (1) a period of dislocation extending from the outbreak of war to the early autumn of 1915; and (2) a period of revival and of great vigour in production which began in the autumn of 1915. This latter period is the period of the rise in exchange and of the rise in the gold price of silver by as much as 144 per cent.[1] We shall postpone to Chapter VII. the vexed question of inflation.

II

Period I.—1914 to 1915

The internal currency position in the first of these two periods was not free from anxiety owing to a vague and unwarranted sense of insecurity among the uneducated masses and even among some literate classes, notably Marwaris. Some of these Marwaris, preferring the ease of their own home to the apparent insecurity of the market-place, went off for a time with their valuables to Rajputana. "Business as usual" was not their maxim. Steps were taken to prevent dissipation of gold by notifying that gold would be issued to no person or firm to a less extent than £10,000. This, it was thought, would in a rough-and-ready way separate remittances for foreign exchange from local requirements, including hoarding. Various individuals and firms, however, clubbed together to make the minimum demand. It was therefore decided on August 5, 1914, to refuse the issue of gold altogether to private persons. In the first four days of August Government paid out in gold no less than £1,800,000. In addition to this scramble for gold there was a run on the deposits in the Post Office savings banks. This was equivalent to a run on Government treasury balances, since these

[1] The average price of silver per standard ounce in London during September and October 1915 was 23¾d. The quotation of May 10, 1919 was 58d., a rise of 144 per cent.

deposits are, as in the United Kingdom, unfunded and treated as part of the Government balances. From the second week of August large withdrawals from these Post Office savings banks took place, and during August and September there was a net decrease of six crores or the equivalent of 25 per cent of the deposits at the beginning of August (R. 24½ crores). These balances fell to R. 14,89 lakhs by the end of March 1915.[1] Prompt measures were taken to meet all claims, and confidence was soon restored. As the Finance Member remarked, it was interesting to see how our enemies viewed the position at this time, since a number of German prisoners at Ahmednagar themselves opened accounts with the Government savings banks. In Bombay and to a less extent in Burma and in the Punjab, there was also an abnormal demand for the conversion of currency notes into rupees. Out of R. 4¼ crores of notes cashed in India (including, of course, Burma) during August and September 1914, R. 2¾ crores were cashed in the Bombay Presidency. The encashment in Burma and in the Punjab, unlike that in Bombay, was due as much to the special trade conditions of the year as to lack of confidence. Steps were taken to check any uneasiness by instructing treasuries to meet promptly and as far as possible all demands for encashment, and a large number of notes, especially in Bombay and in the Punjab, were cashed in this way. Notes, it will be remembered, are encashable

[1] The increase in these deposits since this date is interesting:

March 31, 1916	R. 15,32 lakhs.
1917	R. 16,60 „
1918	R. 16,59 „
1919	R. 18,83 „

The level on March 31, 1919 was still 19 per cent below the pre-war level (R. 23,17 lakhs).

as of right under certain conditions only at the seven currency offices, and not at treasuries. The run was of comparatively short duration, as will be seen by the following statement of the active note circulation (*i.e.* excluding notes held in Reserve and other Government treasuries and in the Head Offices of the Presidency banks) on 31st March :

1914 . . .	R. 49,97 lakhs.	1917 . . .	R. 67,08 lakhs.
1915 . . .	R. 43,96 „	1918 . . .	R. 84,30 „
1916 . . .	R. 53,19 „	1919 . . .	R. 1,33,58 „

The strengthening of the cash resources of the Post Office savings banks and treasuries and also of the Government deposits with branches of the three Presidency banks was an added strain on Government balances. In view of this, such balances could not be economically mobilised at the chief commercial centres.

Next with regard to the external aspect of the currency during this period. Government undertook to support exchange by all the means in their power. This was a policy recommended by the Chamberlain Commission on Indian Finance and Currency, the report of which had only been issued a few months previous to the outbreak of hostilities, and had not included in its purview such a catastrophe as a world at war. Sterling bills or reverse drafts were offered for sale up to a maximum limit of £1,000,000 a week until further notice. This was an innovation on previous policy. In the crisis of 1907 and 1908 the exact amount had not been settled before each successive weekly sale, and the possible apprehension that the drafts might be reduced in the following week with the consequent speculative competition was thus avoided. The amounts sold on similar occasions in 1907 and 1908 were only £500,000 and occasionally £1,000,000 a week. From August 1914 to January 1915 it was necessary to have weekly sales. In June 1915 these sales had to be resumed for three months until the demand for Council drafts recommenced. In order to afford immediate remittance the system of selling telegraphic transfers was introduced concurrently with the sale of bills. It was also arranged that bills should be payable in London sixteen days after the departure of the weekly mail. The uncertainty of the delivery of the bills in London was by this means eliminated. In August 1914, it may be noted, the balances in London and in India were high, and well able to stand the coming strain. Treasury balances had swollen and the amount of gold in London and in India totalled £23,500,000, of which nearly £5,000,000 was in the Gold Standard Reserve and the rest mainly in the Paper Currency Reserve. The Secretary of State had also in the Gold Standard Reserve considerable parcels of short-term securities, some of which were about to mature. Following the recommendation of the Chamberlain Commission, the Gold Standard Reserve was strengthened by the exchange of R. 6 crores (or £4,000,000 sterling) for an equivalent sum of gold from the Paper Currency Reserve.

The chief points during the first year of war in the working of the currency system were: (1) the unqualified assurance of Government's determination to support exchange; (2) the stopping of the issue of gold to private persons; (3) the strengthening of the Gold Standard Reserve by replacing the rupees (previously held in the Indian branch of that Reserve) by gold to the extent of £4,000,000, which was obtained from the Paper Currency Reserve in exchange for 6 crores in rupees; (4) an equivalent increase in the fiduciary portion of the Paper Currency Reserve by £4,000,000; and (5) the adoption of measures to facilitate and extend the use of currency notes. The inherent strength of the Indian currency machine was brought to the test in this period. There was no sudden tumble in exchange in the manner that had sometimes been forecasted during the alarms of war. All obligations were met without any extraordinary measure of assistance from outside sources. The stability of the rupee was maintained, and at no time was it necessary to have recourse either to the expedient of a moratorium, or to the inconvertibility of the note issue as in several other countries, notably France and Germany.

III

Period II.—1915 to 1919

(1) *The Causes of the Rise in Exchange*

The history of the second period is by no means commonplace or jogtrot. It is extremely interesting and big with events of great importance. In the first place, there was a persistent demand for India's products (at good prices) and also for services. There was also a contraction in imports concurrently with an increase in exports. Over and above all this there occurred a catastrophic change in the movement of gold and silver. We were unable to obtain our usual share of the precious metals, and this led, as we shall see, to a change in the financial relations between India and countries abroad. It resulted in an appreciating value of the rupee in the international exchanges. Our customers abroad were unable to follow their peace-time methods of paying for Indian exports, viz. by exporting goods or treasure to India in sufficient quantities to liquidate the balance of trade which in normal times is largely in favour of India. Custom, as we have shown with tiresome iteration elsewhere, could not be changed suddenly, and the lack of the precious metals thus led to currency difficulties. From time immemorial India has demanded gold, or, as one writer has put it, she has been "from the birth of international commerce the receptacle or sink for the precious metals of the civilised western world." Herodotus in his own picturesque way describes how Indians of his day used to get gold dust from the soil turned up by ants that were "smaller than dogs but bigger than foxes." The ant-heaps were raided at the hottest time of day when the ants had gone underground, and then the Indians would gallop away on swift camels to avoid the ants preparing to avenge the attack on their heaps. Adam Smith in a well-known passage of the *Wealth of Nations* (1776) speaks of the hoarding habit: "Where men are continually afraid of the violence of their superiors, they frequently bury and conceal a great part of their stock, in order to have it always at hand to carry with them to some place of safety, in case of their being threatened with any of those disasters to which they consider themselves as at all times exposed. This is said to be a common practice in Turkey, in Hindustan, and, I believe, in most other governments of Asia. It seems to have been a common practice among our ancestors during the violence of the feudal government. Treasure-trove was in those times considered as no contemptible part of the revenue of the greatest sovereigns in Europe." In other passages he refers to "the precious metals that are a commodity which it always has been, and still continues to be, extremely advantageous to carry from Europe to India," and to the annual exportation of silver to the East Indies, by which "plate is probably somewhat dearer in Europe than it otherwise might have been. . . . The trade to the East Indies, by opening a market to the commodities of Europe, or, what comes nearly to the same thing, to the gold and silver which is purchased with those commodities, must necessarily tend to increase the annual production of European commodities, and consequently the real wealth and revenue of Europe. That it has hitherto increased them so little is probably owing to the restraints which it everywhere labours under." These were the views of the father of Economics 143 years ago, and they are of more than passing interest at the present moment.

In the five pre-war years the total excess of exports over imports of commodities was about £262,000,000 sterling. This was liquidated by a net import of funds (Council drafts, etc.) to the extent of £142,000,000. These Council drafts were paid in Calcutta, Bombay, and Madras from Government's balances in these ports, and constituted a drain on the silver balances. The trade balance was also liquidated to the extent of £120,000,000 in treasure. This import of treasure was on private account, 80 per cent of which was in gold. During the five war years ending March 31, 1919, the favourable balance of trade, amounting to £254,000,000, was partially liquidated by a net import of funds to the value of £100,000,000, and by the surprisingly low, even beggarly, import of treasure of £36,000,000. This small import of treasure in the war period as against £120,000,000 in the pre-war period threw, as we shall see, a heavy burden on the Government rupee balances in India. During the war India has been accumulating deferred payments abroad, and her creditors were unable to send treasure as usual in part payment for exports. In these five years, therefore, there is a favourable balance of no less than £118,000,000. In the five pre-war years this balance was *against* India to the extent of over £1,000,000 sterling.

Balance of Trade

(In thousands of £.)

	1909–10 to 1913–14 (pre-war average).	1914–15 to 1918–19 (war average).	1917–18.	1918–19.
Net exports of merchandise (excess of exports over imports)	52,179	50,871	61,420	56,553
Net imports of treasure and funds	52,464	27,294	49,830	15,651
(*a*) Council drafts	28,416	20,098	34,553	15,598
(*b*) Treasure	24,048	7,196	15,277	53
Balance of trade in favour of India	..	23,577	11,590	40,902
Balance of trade against India	285	..	..	..

These figures, however, do not show completely the small extent to which treasure on private account has been imported in the period 1917 to 1919 when exchange left its old moorings. The net import of treasure decreased from £1,357,000 in 1916–17 to £53,000 in 1918–19, a decrease of 96 per cent. If we take the balance of trade for the year ending March 31 last we find that, excluding the exceptional credit of £11,000,000 given to the nominees of the United States in India in part payment of silver, known in banking parlance as "American Councils," there was a record favourable balance of £41,000,000. In place of a large net import of treasure in normal times, there was a net import of only £53,000. In the five war years ending March 31, 1919, the average net imports of gold were £5,000,000 a year, of which £2,000,000 only were sovereigns, the remainder being in the form of bullion and coined gold other than sovereigns. The yearly average supply of gold for private needs was reduced to a figure below that of any of the preceding twenty-five years, except famine years, and the favourable balance of trade brought about by the impossibility of gold imports was not corrected to an equivalent degree by increased sales of Council drafts. The average net imports during the five pre-war years were £19,000,000 a year, of which £12,000,000 were sovereigns. Again, India's demands in war-time were not unreasonable, since her absorption of gold, silver, and rupees was R. 224 crores in the years 1909–14 against R. 165 crores in the years 1914–19. The views of the senior Indian Chamber of Commerce, the Bengal Chamber, are not without interest in this connection.

"Next to piece-goods," they write, "gold and silver together are the most important item on the list of imports and must be regarded as articles of merchandise. The use of gold and silver is bound up with the religious and marriage customs of the people—customs that cannot be changed by mere decrees. It is therefore necessary in the opinion of the Committee that as soon as possible unrestricted imports of gold and silver should be allowed, and it should be noticed that during the twenty years preceding the war the value of the import of gold considerably exceeded that of silver. It will be clear that gold rather than silver dominates the position, and that if India is allowed partly to balance her trade in gold, the local demand for silver must decrease, and consequently the price of silver must fall. The Chamber believe that India would be prepared to pay a premium for the import of gold, and they would emphasise the Indian market value of gold, which was R. 33.8.0 per tola, or R. 89 per ounce,[1] on June 19, 1919. During the war the gold in the United States Federal Reserve system has increased from $592,000,000 to $1,786,000,000, or approximately by £250,000,000; the gold in Spanish banks has increased by £70,000,000; in the Netherlands by £43,000,000; in Switzerland by £10,000,000; and in Norway and Sweden by £14,000,000. The net import of gold into India in the same period was £26,000,000. In other words, these countries with a population of 114,000,000 have increased their gold reserves by £387,000,000, while India with a population nearly three times as large has had to be content with £26,000,000."

The shortage, in short, of gold and silver bullion imports was the chief cause of this enormous demand for rupees.

At this stage the worldly wisdom of reticence on the part of Falstaff on a famous occasion may appear worthy of imitation. "Give you a reason on compulsion! If reasons were plentiful as blackberries, I would give no man a reason upon compulsion." How, it may be asked, granted there was a shortage of imports of merchandise and treasure on private account, did this produce the rise in exchange? We are sometimes apt to forget that the rupee exchange, stripped of all the intricacies that surround it, is a very simple thing. It is nothing more than the gold price in London of the command over rupees in India. It is the amount of gold in London to be paid for one rupee in India at once, *i.e.* by telegraphic transfers,

[1] See Addenda and Corrigenda, p. 483.

or after a lapse of time, *i.e.* by Council bills or similar bills of exchange. With the large demand for India's products at unusually high prices, and the sheer impossibility of obtaining in return in anything like sufficient quantities piece-goods, iron and steel, and other commodities, as well as imports of gold even from London (hitherto a free market for gold), there was a great demand in London for the right to rupees in India. The Secretary of State sold drafts but only to a limited extent, as the rupee balances in India were limited. These sales in London of Council drafts meant in Calcutta, Bombay, and Madras a great demand for rupees. There was thus a great strain on Indian rupee balances. The rupees sent up-country to pay for articles of national importance were, in view of the demand abroad, at high prices, and this fact in itself helps to explain the demand for more rupees. But troubles in currency do not come singly. The producers of these exports could not obtain imports either in the form of piece-goods and similar articles or in the form of gold and uncoined silver. Rupees on this account remained up-country and did not move back in the ordinary way to replenish rupee stocks at the ports. The producers of these commodities had, in a country where banking is not developed, where every man in nine cases out of ten is his own banker, simply to "sit on" the proceeds of their crops, and instead of bringing back from market piece-goods, etc., for themselves and their families, brought home cash. The absorption statistics are of interest in this connection. By absorption we do not mean that the rupees have all been buried. Absorption merely indicates that the rupees have been passed into circulation and have not come back.

RUPEE (INCLUDING HALF-RUPEE) ABSORPTION
(In lakhs of rupees.)

Pre-war annual average (1909–10 to 1913–14).	1914–15.	1915–16.	1916–17.	1917–18.	1918–19.	Annual average (1914–15 to 1918–19).
8,78	—6,70	10,40	33,81	27,86	45,02	22,08

(—means a return from circulation.)

Here we have an increase of 62 per cent in the absorption of rupees and half-rupees in 1918–19 above that of 1917–18, and 413 per cent above the pre-war normal. Such a large absorption is wasteful. Truly those who bury rupees in the ground and hide them away are, as in the parable of the Talents, unprofitable servants. The absorption was equally phenomenal, especially in 1918–19, for small coin, as will be seen from the following table :

ABSORPTION OF SMALL COIN
(In thousands of rupees.)

	Four-anna pieces.	Two-anna pieces silver nickel.	One-anna pieces nickel.	Bronze coin (single pice).	Total.
Pre - war annual average 1909–10 to 1913–14 . .	15,75	13,59	21,01	10,51	60,87
1914–15 . .	- 10,23	- 4,63	6,87	- 12,57	- 20,56
1915–16 . .	8,33	7,44	18,60	2,06	36,43
1916–17 . .	32,99	23,17	32,50	8,59	97,25
1917–18 . .	38,11	28,53	25,86	6,15	98,65
1918–19 . .	1,16,34	94,75	46,82	19,62	2,77,53
Annual average 1914–15 to 1918–19	37,11	29,85	26,13	4,77	97,86

None of the subsidiary coins have the same significance as the rupee, not even the silver eight-anna piece, which is legal tender. If then nickel four-anna and eight-anna coins were introduced to replace the small silver coins, ample reserves of all nickel coins should be kept ready for use. The lessons of the large absorption of nickel coins in 1918–19 show the absolute necessity of having in our Mints large reserves of such coin well in advance. Canada is the main source of nickel, and supplies cannot be laid down in India at a moment's notice. See Addenda and Corrigenda, p. 483.

There were also large disbursements in India on behalf of the War Office in London, and these were a very heavy strain on silver balances in India. Government, in order to meet the needs of the British and Allied Governments, became the largest individual exporters of war supplies and services. The disbursements were made in India and corresponding payments were made in London. The crux of the whole situation was how to convert the funds locked up in London into remittances, at a time when gold was unavailable and the world's silver stocks very low and very dear. In 1918–19 the total disbursements in India for which it was necessary to provide, apart from expenditure debited to Indian revenues, amounted to £141,000,000, more than half this sum representing war outlay on behalf of the Home Government. The Secretary of State's liabilities were covered several times over by repayments made to him in London against the large payments in India. These disbursements in themselves (and apart from the Council drafts also sold) placed a very heavy strain on Indian resources. The import of specie in large and sufficient quantities was wholly out of the question. The ear-marking of gold in large amounts in London against the concurrent issue of notes in India from the Paper Currency Reserve, was also not possible, since in war-time this was not in the interests of the Empire. Nevertheless, these methods of increasing funds available in India were used to an extent not fully appreciated. In the last two years no less than 290 million ounces of silver, valued at £53,972,000, were imported, scarce though it was, and turned into rupees. An alternative method to the ear-marking of gold in London against the issue of notes in India was the holding of a portion of the Paper Currency Reserve in British Treasury bills, the next best thing to gold. Currency notes were set free to pay for goods and services in India incurred on behalf of the Allies, and repayment of a portion of the amount was made in British Treasury bills. Just as the United States gave loans to her Allies to cover purchases in America, so India lent temporarily funds required for part of the outlay in India. There was, however, an obvious limit to this. Finally, by means of loans raised in this country (War Loan and Indian Treasury bills), Government were able to finance disbursements in India with the proceeds of such loans. Repayment was made in England for such expenditure as had been incurred on behalf of the Allies, excluding of course that portion of the amount so recovered, representing the equivalent of subscriptions to Indian War Loan (which was actually made over as a gift in cash and not lent to the British Government). In 1916–19 the disbursements of £141,000,000 were financed mainly by the receipt of silver, £56,000,000; by the receipts of the Indian War Loan, £37,000,000; and by the issue of currency notes against additional investments, £25,000,000.

All these facts meant in plain language a heavy strain on rupees, the only producers of which were, of course, Government. It was necessary, therefore, for Government to purchase silver to coin rupees in order to keep up their balances to the necessary minimum and to stave off inconvertibility, permanent or temporary, of the note issue. Large purchases of the white metal were necessary and prices accordingly soared. The following summary tables show the position in a nutshell, and explain why on May 13, 1919, exchange had risen 25 per cent above the 16d. level, a level that had been more or less consistently maintained up to August 1917, *i.e.* for practically eighteen years :

(1) NET IMPORTS OF SILVER INTO INDIA, WORLD'S PRODUCTION, AND THE PRICE OF SILVER

Silver.	Pre-war decennial average 1904–5 to 1913–14.	Pre-war quinquennial average 1909–10 to 1913–14.	1914–1915.	1915–1916.	1916–1917.	1917–1918.	1918–1919.
1. Net import (million standard ounce) .	76	62	56	33	92	75	237
2. World's production (million fine ounce)	200	222	161	180	161	164	180
3. Percentage of net imports to world's production . .	35	26	32	17	53	43	122
4. Price of silver (pence per ounce in London) . .	27	26	$25\frac{5}{16}$	$23\frac{11}{16}$	$31\frac{5}{16}$	$40\frac{7}{8}$	$47\frac{9}{16}$

Figures against item No. 1 relate to the fiscal year.
Figures against items Nos. 2 and 4 relate to the calendar year.

(2) NET IMPORTS OF SILVER INTO INDIA, WORLD'S PRODUCTION, AND THE PRICE OF SILVER (PERCENTAGES)

	Pre-war quinquennial average.	1914–1915.	1915–1916.	1916–1917.	1917–1918.	1918–1919.
Net imports	100	90	53	148	121	382
World's production . .	100	72	81	72	74	81
Percentage of net imports to world's production .	100	123	65	204	166	470
Price of silver . . .	100	96	92	119	158	182

The net imports were less than the pre-war average during the first two years of war, but during 1916–17 and 1917–18 a large demand was made on the world's production. In the pre-war quinquennium the annual average net imports of silver into India were 26 per cent of the world's production; in the year ending March 31, 1916, 17 per cent; in 1917, 53 per cent; in 1918, 43 per cent; and in 1919, the year just ended, the equivalent of 122 per cent of the world's production. This demand unfortunately occurred at a time when the world's production was below the pre-war normal.

The absorption of rupees in India during 1918 was so great that a silver crisis occurred in India. On March 31 of that year the silver balance of the Paper Currency Reserve fell to R. 10½ crores, and a still more serious absorption seemed imminent. In the first fortnight of April there was a further absorption of no less than R. 4¼ crores. The convertibility of the note issue seemed to hang in the balance. Inconvertibility at the time would have meant a set-back to India's war efforts. The result of suspension of rupee payments suddenly in a population of which 94 per cent is illiterate can well be imagined. The United States were approached. Negotiations had actually been undertaken as early as October 1917. In February 1918 Lord Reading, the British Ambassador at Washington, ably assisted by Sir James Brunyate, formerly Financial Secretary to the Government of India, made an appeal to the Government of the United States in Washington. The United States as a result of the negotiations descended on India, not like Jupiter of old in a shower of gold, but literally in a shower of silver. At first, it is understood, the British representatives were unwilling to pay more than 85 cents per ounce, a price at which the major portion of the annual production of the country could have perhaps been purchased. This, however, was insufficient to meet the needs of the coming year, and the dollars coined under the Sherman Act were the only spot silver available. Legislation was necessary, and the passing of an Act of Congress at first seemed doubtful, as many senators representing the silver-producing states insisted that the old ratio value of \$1.29 per ounce should be re-established. The agreement to fix the price at a dollar per fine ounce, excluding $1\frac{1}{2}$ cents for mint charges,[1] or \$1.01$\frac{1}{2}$, was reached to a large extent through the untiring efforts of the representatives of both Governments, including Governor Boyle and Senator Pittman of Nevada. On April 23, the Pittman Act, which had been hurried through Congress, became law without opposition. The aim of the Act, as stated in the preamble, is important, as showing the idea that lay behind it:

> To conserve the gold supply of the United States; to permit the settlement in silver of trade balances adverse to the United States; to provide silver for subsidiary coinage and for commercial use; to assist foreign governments at war with the enemies of the United States; and for the above purposes to stabilise the price and encourage the production of silver. (Act No. 139, 65th Congress, 1918.)

It provided that:

> The Secretary of the Treasury is hereby authorised from time to time to melt or break up and to sell as bullion not in excess of three hundred and fifty million standard silver dollars now or hereafter held in the Treasury of the United States.

Of the total amount melted down under the Act,

[1] Thus the price obtained by the United States Government was \$1.01$\frac{1}{2}$ per fine ounce. See Addenda and Corrigenda, p. 483.

270 million fine ounces, the equivalent of $350,000,000, India's share was 200 million fine ounces. Between July 1, 1918, and July 17, 1919, all the silver under the Pittman Act had been received from the United States into the Indian mints at Calcutta and Bombay. The Act also provided that such sales were to be replaced by purchases of silver from the United States mines, such silver being purchased at the fixed price of $1 per ounce of silver one thousand fine, delivered at the option of the Director of the Mint at New York, Philadelphia, Denver, or San Francisco. This was undoubtedly the most important piece of currency legislation since 1893.

The news in India about the middle of April that the United States were to assist on terms which were generous to India relieved the anxiety in the critical weeks of May and June, and by the beginning of July shipments under this Act began to arrive. With the commencement of the busy season absorption again overtook the coinage, and by the end of November silver balances had fallen to R. 8½ crores. A system of double shifts was introduced into the Mints, and by December 1918 a world's record coinage of R. 834 lakhs was reached. By March 31, 1919, the rupee branch of the Paper Currency Reserve had risen to nearly R. 17 crores. At the present time (July 1919) when the tide has long since turned, the total holding of silver in the Paper Currency Reserve, both coin and bullion, amounts to R. 46 crores, as against R. 18 crores in July 1918.[1]

In August 1917, April 1918, and May 1919, with the rise of silver above the content value of the rupee, exchange was also raised, at first from 16¼d. to 17d.

[1] Cf. also Chapter I. p. 18.

for telegraphic transfers, then to 18d. and finally to 20d.[1] This 20d. rate enables silver to be purchased without loss at about 53¾d. excluding charges. At 1s. 10d. the price would be about 59¼d., at 1s. 6d., 48½d., and at 1s. 4d., 43⅛d. At 2s. silver could be purchased at about 64½d.[2] This was necessary in order that rupees would not be liable to be smuggled out of India in indefinite quantities. As Sir William Meyer in the Financial Statement for 1918–19 pointed out :

> The absorption of rupees during the years when the bullion value of the rupee was less than its face value affords no criterion of the probable demand on Government for rupees when, owing to a rise in the price of silver, it would become profitable to melt or to export them. In order to avoid loss from these causes as far as possible, we have, it is true, taken certain steps in the form of prohibitory legislation ; but though prohibitions of the kind may serve their object to some extent as temporary expedients, they cannot be expected to operate as a permanent check to the drain on our rupee currency which would certainly accompany a substantial and continued appreciation in the bullion value of the rupee over its face value. In fact the most important limitation which has previously existed on the possible demand on Government for the supply of rupees, viz., that it is unprofitable to export or melt them, would be entirely removed. The only safeguard that a rise in the value of silver above what I may call the " rupee melting point " will not result in the disappearance of rupees from circulation is such a modification in their external exchange value as to make their export unprofitable. Apart from this safeguard an indefinite and unlimited liability would be entailed and it would be indefensible for the Government of India to accept this liability as a loss either to the Gold Standard Reserve or to Indian revenues generally.

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[1] This rate has been raised to 22d. with effect from August 12, 1919. See Addenda and Corrigenda, p. 483.

[2] For table on the silver content of the rupee (excluding charges), No. 13, see p. 459. Cf. also Chapter I. p. 18.

(2) *The Fixing of Exchange*

We now turn to the third of the questions referred to at the beginning of this chapter—the probable difficulties to be surmounted in fixing exchange in the near future. One of the first problems which the Currency Committee of 1919 has to solve is the rate of exchange to be adhered to in the future. Stability of exchange, as experience has proved, has been an inestimable gain to the trade of the country and to India generally. Another problem will be the method by which this stability should be secured. Should, for example, Government be prepared to face temporary inconvertibility of the note issue and keep out of the silver market until more favourable prices prevail? These are difficult questions to be decided by a body of experts, such as Sir Henry Babington Smith's Currency Committee.

In regard to the stereotyping of the rupee the experience of the Herschell Committee of 1893 is not without value. That Committee fixed 1s. 4d. on tentative and not on arbitrary grounds. It was approximately the average rate of the five years preceding 1893, and at that date a shade above the prevailing rate. It therefore involved only a very small departure from the *status quo*. In the second place this 1s. 4d. rate of exchange was very convenient between the Indian and the British coins. The sovereign became equivalent to Rs. 15, the rate at which the gold mohur exchanged for rupees. The subsidiary coins of the two countries fitted in with each other very neatly—the rupee being divided into 16 annas, and so one anna became equal to one penny and 240 annas to £1.[1] This experience is useful in considering whether 1s. 8d. should be the fixed rate for the future. We cannot go back to 1s. 4d. To do so would necessitate putting less silver into the rupee. A plan similar to this was, it is true, followed in the Straits, but the silver dollar of the Straits is in no wise to be compared with the rupee in India. It does not circulate in the Straits to anything like the same extent as does the rupee throughout India. The rupee, which was a legacy from Mogul times, having been introduced nearly 380 years ago, is known and used everywhere, not merely as a standard of value, but (and this is important) as a store of value. The Indian looks on the Government rupee as of definite size and one tola in weight.[2] He rightly regards it as containing always a definite amount of silver. It is in other words fixed. It is pre-eminently the sirkar's (Government's) coin. The rupee circulates even beyond the frontiers of India, in Mesopotamia, in East Africa, in parts of Siam, and elsewhere. There would also be trade and even political difficulties if the two rupees were in circulation. The first result of any alteration in the fineness of the rupee would necessarily be that the old rupees would go out of circulation and would in fact tend to disappear altogether as rupees, since it would be quite impracticable to recall them from circulation when a debased rupee was instituted. In other words, under Gresham's law, the proposed new rupee would drive out the old rupee, and this would bring about a crop of difficulties. Moreover, the change would necessitate the re-coinage of the old

[1] Cf. Chapter V. p. 143.

[2] Three-eighths of an ounce Troy. Eleven-twelfths fine.

rupees in circulation. Lastly, when the reduction in the silver content has taken place, one is never certain when another change may not be necessary. All things considered, this is altogether outside the sphere of practical statesmanship.

In arriving at a decision as to whether 1s. 8d., 1s. 10d., 2s. or any other rate should be fixed, the main factors to be kept in mind are (1) that the change should cause the least sudden dislocation of trade and disturbance between debtor and creditor, and (2) that the rate so fixed will give stability of exchange in future. The raising of exchange has, of course, the same effect as an increase in Indian prices to the buyer of Indian exports and a fall of foreign prices for the Indian importer. This raising of exchange would tend, *ceteris paribus*, to reduce at first exports and to increase imports and to arrest the ascending scale of prices to the advantage of the non-cultivating classes in India and to the disadvantage of the cultivating classes and middlemen. To arrive at a rate requires the most careful examination of data. The raising of the rate to 2s. would mean a large jump, and the equivalent price of silver per oz. in London would be about 64½d. Its supporters, however, allege three advantages: (1) that exchange would be fixed permanently at a figure beyond the reach of interference by any rise in the price of silver; (2) that this high rate would tend to prevent any further considerable rise in prices in the near future; and (3) that there will be a large saving in remitting "Home charges," a saving which can be devoted to other urgent heads of expenditure. On the question of raising the exchange rate to a point independent of silver the Bengal Chamber's views are apposite.

"If," they say, "we assume that 2s. would be a rate which would make the rupee independent of the price of silver, the sterling price of Indian produce would, in order to yield the same rupee price as in pre-war days, have to rise 50 per cent, assuming the cost of production to remain constant. At the present moment the prices of practically all commodities are more than 50 per cent over their pre-war prices, and therefore the rise in exchange to 2s., as far as produce is concerned, might not have any serious effect. But present conditions are abnormal, and it is therefore necessary to consider which of India's exports are liable to competition with gold and silver standard countries, and would be severely handicapped by an exchange based considerably above the present value of silver. Food grains come first among India's exports, and although theoretically India should suffer as regards food grains through a rise in exchange, it appears probable that the price of food will remain so high for such a long period that the effect of the rise might not be severely felt. Jute is a monopoly of India, and it is probable that, unless substitutes are discovered, the increased cost would have to be paid by the purchaser. On the other hand, India is only one of many producers of cotton, and while at present prices she could easily compete even at 2s. exchange, she would be very seriously affected if cotton prices fell to anything like their pre-war level. Tea is in competition with China, Java, and Japan; it has been shown that India can compete with China, a silver country, even when the exchange value of a rupee is far above its intrinsic value, but any rise in exchange must seriously prejudice India in competition with Japan and Java, the latter of which in particular has of late years become, and probably will continue to be, a serious competitor with India. As regards hides and skins India competes in buffalo hides with China, Java, and the Straits; and in cow-hides with Africa; but in goat skins her position is probably unassailable. But the effect of a high exchange must also be considered as regards imports and India's industries. Every effort has lately been made to stimulate India's industrial production; high exchange must, other things being equal, mean lower priced imports, and lower priced imports may well seriously damage, if not cripple, those industries which have been started during the war and have not yet had time to get firmly established. The effect on one of India's greatest industries, cotton manufactures, especially as regards Japan, may be serious. Provided that the cost of production in Japan does not rapidly increase, a premium will without doubt be given to imports of Japanese goods made of Indian cotton to the extent of the rise in exchange on the cost of production, which in India is not likely to grow less. Generally therefore it is the opinion of the Chamber that the fixing of exchange at a point independent of the price of silver is liable seriously to affect many of India's exports and industries, if the rate be fixed unduly high, although owing to abnormal world prices this effect might not be evident for some time."

The Chamber, however, is in reality looking from the point of view of producers, and is at the same time referring to "short period" effects of the raising of exchange. In the long period, *i.e.* when things have settled down, and prices have adjusted themselves, a 2s. rate will neither check exports nor encourage imports.[1] On the other hand it is sometimes urged—

. . . that either the exchange value of the rupee must be considerably raised or the mercantile community must be prepared to do without large drawings of Council Bills at times when the price of silver is high. Nor can we really believe that a rise of the exchange would be anything but beneficial to India, although it would, perhaps, involve temporary hardships in certain cases. We believe that its effects on the level of prices would be most beneficial. Every one knows how severely the rise of prices has been felt, and that the only class that has materially benefited has been the middleman. A rise in the exchange would go some way to check the rise in prices. It would tend to reduce the prices not only of articles imported

[1] Cf. Chapter V. p. 149 on the stimulus of a falling exchange.

from other countries but also of those exported to other countries; and this would lead to a sympathetic fall in the case of those articles which are neither exported nor imported. When we reflect on the level of prices in Europe and the cost of labour there, we are disposed to believe that the fears of competition with Indian industries are largely without reason; and that, if India is to retain the advantage of cheap and contented labour, lower prices in India are essential. In short, from the point of view of foreign competition it is likely that the gradual raising of the exchange to 2s. would be neutral. On the other hand, by its operation on the level of prices we believe it would tend to the peace and prosperity of the country at large.[1]

If silver receded from, or even remained at, its present level, the difference between the silver content and circulating value would be great at the 2s. rate. The resulting disadvantage, *e.g.* the chance of counterfeiting, need only be mentioned. Against this, however, has to be set the advantage of placing the rupee beyond the reach of interference by any increase in the gold price of silver since it is highly improbable that silver could soar to over 60d. While avoiding a large jump in exchange like that which 2s. would involve, one must avoid too small a jump, since this may result in less permanence. There are other factors of great importance, viz. (1) India's future demand for silver. A high American authority has estimated the demand for the present year as follows: India 150,000,000 ounces; the arts 75,000,000 ounces; subsidiary coinage 60,000,000 ounces; Africa 25,000,000 ounces; China, etc., 40,000,000 ounces. Total, 350,000,000 ounces. Production, 180,000,000 ounces. Shortage, 170,000,000 ounces. It is assumed in this estimate that gold will not be exported to India

[1] Vide *Madras Mail* of the 16th July 1919.

and that silver will have to assist in filling the void. India has so far taken no less than 28 per cent of the total world's production of silver. In the last three years the two Indian Mints at Calcutta and Bombay have issued a net coinage of 103 crores of rupees, the equivalent of the coinage of the eleven preceding years. These were, of course, exceptional coinages. India's demand for silver will, of course, be affected by the policy to be pursued with regard to gold. The gold production of the world is now largely in the hands of the British Empire and the United States. Both these countries are creditor countries and, therefore, are able to restrict the exportation of gold. If the free distribution of gold is not permitted, silver will be substituted if it can be produced. A second factor is that the probable demand for silver in other countries will have to be considered. Thirdly, increased production is an important factor, and there seems, on the authority of American producers, to be abundant room for an increase in production. Lastly, there is the operation of the Act of Congress of 23rd April, 1918. The Director of the Mint is compelled under the Pittman Act to replace the silver dollars with an equivalent amount of American silver to that contained in the dollars that have been sold under the Act. The Director of the Mint is also required to purchase at $1 per ounce all the silver offered, and since it is only the surplus not required for coinage or commercial purposes that will be offered, it is unlikely that the Director will be able to complete the purchases required by the Act for some years. Senator Pittman is reported to have said regarding the price of silver: "I do not believe that it will advance much above $1.25 for immediately the established parity of the silver dollars is threatened, as it would be, if the price tended to go beyond $1.29, the Government would again interfere and renew the embargo on the export of silver. We may, therefore, expect the price of silver to range somewhat between the extreme limits of $1 and $1.29 for perhaps a period of twenty years." This, however, is a prophecy and one cannot refute a prophecy. One can only believe or disbelieve it.

(3) (*Temporary*) *Inconvertibility of the Note Issue—the Alternative to Stability*

In view of the important position India holds as a buyer in the silver market, it is sometimes suggested that power should be taken by Government to declare the inconvertibility of the note issue or at least the inconvertibility of certain denominations of the notes. Such inconvertibility would be only temporary.[1] If prices are so high that silver could not be purchased and coined into rupees without raising its sterling value, then it is said to be preferable to face inconvertibility and not to purchase silver for coinage. Such a declaration, or the mere possession of the power of declaring inconvertibility, would keep, it is alleged, silver prices from soaring to levels which might make stability of exchange out of the question. This proposal merits careful consideration.

It is usually held that an inconvertible note issue, because of its tendency to depreciate, is an imperfect and dangerous form of circulating medium. Depreciation, however, is not a necessary consequence of inconvertibility. "The whole charge for paper money," said Ricardo, "may be considered as

[1] See Addenda and Corrigenda, p. 483.

seigniorage. Though it has no intrinsic value, yet by limiting its quantity its value in exchange is as great as an equal denomination of coin, or of bullion in that coin. It is not necessary that paper money should be payable in specie to secure its value ; it is only necessary that its quantity should be regulated according to the value of the metal which is declared to be the standard." It is, however, possible to count on the fingers of one hand the cases of an inconvertible issue that did not result in depreciation. The classic instance is France in the War of 1870–71, when the notes of the Bank of France were to all intents and purposes inconvertible paper currency. A slight discount existed for a time only owing to the caution of the Bank of France. No serious consequences followed from this issue. The Government of India could create a demand even for inconvertible paper, and could concentrate the demand for this form of paper so as to compel people to employ it as the only alternative of going without a medium of exchange. The issue, if on a most limited scale and under the strictest of regulations, could be maintained. It should in this case form only a small proportion of the total circulation, leaving a large vacuum for rupees. An inconvertible note issue is a special case of monopoly value. On account of the fact that the notes are legal tender and that banks and merchants require legal tender for everyday purposes for loans and till money a demand will be created. "Business conditions," one writer puts it, "remaining unchanged, the limit of possible issue without depreciation is the number of units in circulation before the paper money was issued, the saturation point of full weight and full value coins. Because Governments generally have not stopped at that point, paper money has depreciated."

Inconvertible notes usually by the operation of Gresham's Law displace metallic money, such as rupees, which would tend to be driven into hoards, or at any rate out of circulation. The notes would ordinarily be thrown into circulation, people being unwilling to keep them for any length of time through fear of their possible depreciation. Monetary history shows that both in France and in the United States coins disappeared from circulation, especially when the depreciation or discount on the notes was great. In India the rupee and other forms of metallic currency are deeply rooted, and there is the danger of inconvertible notes becoming either discredited or relatively over-issued. By "over-issued" is meant the issue beyond the point where prices remain the same as under a specie regime. There is also the difficulty of the reverse process of over-issue, sometimes far from easy, however partial may be the inconvertibility, viz. the return to specie payments, whether by a redemption of the paper at its face value or at its market value. The greatest defect of making notes temporarily inconvertible is certainly their effect upon prices. Suppose a large amount of Council drafts were sold in London and paid in India not in notes and rupees but in inconvertible notes. The Secretary of State would no longer be compelled to regulate such sales in the light of rupee balances in India and future purchases of silver. As a matter of administrative practice the sales would certainly be limited. The Government of India would, in turn, also no longer have to watch sedulously their rupee balances. The results of an increase of inconvertible paper on prices, unless most carefully managed, are not very difficult to imagine. The mercantile community and others exhilarated by rising prices demand more and more notes to meet the higher and higher price level. All the consequences of such a rise begin to appear, and are too well known to be set out in detail. Creditors lose; debtors gain; trade is rendered uncertain and speculative. Not infrequently men's minds become unsettled, and the most elementary lessons on the nature and effects of money have to be retaught often in the teeth of the most violent opposition. It becomes extremely difficult to maintain the level of the paper at its declared value in coin, and the only means of doing so is in direct redemption in specie.

The main argument in favour of facing temporary inconvertibility is that it would be an alternative to stability of exchange. Another argument is that paper is a cheap medium and there is thus a saving of many crores which would otherwise be spent in buying silver at high prices. Assuming that the notes will not be rejected, there is nothing to interfere with their fitting in to the gold exchange standard. Notes will be paid out in India to meet Council drafts, and notes will be received by Government in India for gold bills on London. Before the printing press is made to produce an inconvertible paper currency it has to be decided whether on balance the purchase of silver is really or supposedly impossible and whether the possible rise in exchange is the less of two evils. There are very real arguments against the introduction of an inconvertible note issue, even if it is only temporary and only for certain denominations of notes, in a country where ninety-four per cent of the population is still illiterate, where the peop have not become habituated to the use of paper to large extent, and where the rupee has for hundre of years been not only the chief circulative mediu but a, one may even say " the," store of value. the history of the Government Paper Currency India there has on no occasion been an inconvertib note issue. Custom and habit count for more India than in a western country, and with the pop lation constituted as it is any signs of inconvertibili may discredit the note issue. Notes will thus fall a discount, and the absence of metallic curren affected by Gresham's Law may cause not on inconvenience but loss to the poorer classes. Tl element of possible discredit must be carefully co sidered, but never to the exclusion of the quantity such notes which is the chief, if not the only, saf guard against depreciation. There is, as the cris of 1918 proved, always an army of rogues who w take advantage of the ignorance of their fellows ar levy toll from those who desire metallic currency f notes. There is also the danger of irredeemab paper affecting Government's financial prestige n merely in India but in the international money mark London. Financial prestige is a very delicate pie of furniture, and we cannot attack the cobwebs on with a Turk's-head mop.

There are not a few who hold that fixity of exchan may be purchased at too high a price and should on be entered upon in some great exigency of nation life. Among supporters of this view is Gener Francis Walker, who firmly believed that the issu of inconvertible paper was never a sound measure finance, no matter how hedged in the proposals ar no matter what the stress of the national exigency may be.

"It is to my mind," he writes in a well-known chapter on inconvertible paper in his *Political Economy*, "the highest proof ever afforded of the supreme intellectual greatness of Napoleon, that during twenty years of continuous war, often single-handed against half the powers of Europe, he never was once driven to this desperate and delusive resort. I hold any man to be something less than a statesman, in the full sense of that word, who, under any stress of fiscal exigency, supports or submits to a measure for the issue of paper money not convertible at the instant, on demand, without conditions, into coined money of its full denominative value. The political arguments by which such measures are always supported, on the outbreak of war, seem to me the veriest trash, due half to ignorance and half to cowardice."

To sum up. Inconvertibility of a more or less permanent nature is altogether outside practical politics in India. It would lead not only to great currency difficulties but, as the Bengal Chamber of Commerce points out, to "grievous political unrest and disturbance as to be also beyond the limits of consideration." As regards a temporary flirtation with inconvertibility (*quod avertat Deus*), the view of the Chamber is that the dangers to such a procedure are great, but they would be prepared to face this possibility of a resort temporarily to inconvertibility rather than to see exchange fixed at so high a figure as seriously to damage the export and industry of India. To lessen the disastrous effects of temporary inconvertibility they suggest (1) a great increase in the metallic portion of the Paper Currency Reserve. (They do not say how the silver is to be got to do this.) "Government could then announce that while, owing to the high price of silver, it was temporarily impossible for them to encash all notes submitted, they still had very large silver reserves and would continue to pay the salaries of their small salaried staff in rupees, would provide silver for payment of labour, would receive payment in notes for land revenue and all taxes, and as soon as possible would resume silver payment in full." We doubt the feasibility of this, and the risks are greater than at first meet the eye; (2) an ample supply of R. 1 notes; and (3) large stocks of nickel coins ready for issue. "If power so to refuse were given to the Secretary of State (of declaring inconvertibility) to be used only when the price of silver in the rupee rose and remained above the exchange value, he would be enabled to stand out of the silver market. The result would be a duel between the silver producers and merchants on the one side and India on the other; and in view of the enormous share of the world's silver supply which India consumes, the issue would not, in the opinion of the Chamber, be long in doubt." Under certain conditions Government could maintain temporarily, without any great dramatic effect, an inconvertible paper currency. This issue should form only a small proportion of the total circulation. History, however, shows that the first issue of a temporary inconvertible paper currency has been made always reluctantly and under solemn assurances that it would not be increased. A new emergency arises, and the previous pledges become, as Shakespeare would say, "false as dicers' oaths." The dangers in an illiterate country like India are the risk of an inconvertible note issue being discredited in the mofussil,[1] the temptation to issue notes beyond saturation point, perhaps even

[1] Up-country, away from large towns.

without adequate provision for an early redemption, and the consequent risk of a depreciated and depreciatory paper currency.

(4) *Economy in the Use of Gold*

It is of interest to see on the one hand the steps taken to economise gold, and on the other its use in 1917 and 1918 to assist the overstrained rupee balances. In fact, gold was at such a premium that it was driven out of circulation under Gresham's Law as soon as it made its appearance. It was hardly currency at all but an emergency ration. Since June 1917 private imports of gold were acquired under the Gold (Import) Ordinance, No. III, dated 29th June 1917, which was superseded by the Gold (Import) Act XXII of 1917. The gold so acquired passed into the Paper Currency Reserve, an equivalent amount of notes being issued to the importers from whom it was obtained. By this means gold holdings were greatly increased. On 31st March 1919 the gold holdings had risen to £11,580,000 in the Indian branch of the Paper Currency Reserve as compared with £82,000 in the London branch. An analogous transaction which also strengthened India's gold holdings was the arrangement arrived at in 1917–18 between the Home Government, Japan, and the Government of India, under which the Government of India were to receive part of the Bank of England's gold held in Bombay. This gold was gold from the Indian mines and from South Africa, which, to avoid the risk of submarines, had been assayed and warehoused in Bombay on the Bank's behalf. The amount received was placed in the Paper Currency Reserve, and an equivalent amount of notes issued to the nominees of the Japanese Government. On the other hand, Government were on certain occasions (*e.g.* in 1918 and 1919) forced to issue gold coin in the hope of relieving the strain on their silver balances. In 1918 what may be called the relief issue of sovereigns amounted to about £5,000,000, the chief portion of which was used in Northern India for the purchase of wheat on behalf of the Royal Wheat Commission. Another means of relieving the strain on silver was the sale of a portion of the raw gold held in Bombay on behalf of the Bank of England, the gold bullion taken over in India by Government being paid for by sovereigns from the Reserve in London. Between 18th January and 26th April 1918 over £4,000,000 of bullion was sold in this way. A third means of relieving the strain on the silver balances was by the coinage of gold. In view of the acquisitions under the Gold Import Act, the question of a gold mint for India was raised (not for the first or second time). A considerable portion of the gold acquired was not in the form of sovereigns but in foreign gold coin and gold bars, and therefore not available for currency. Before the establishment of a branch of the Royal Mint, gold mohurs (fifteen-rupee pieces) were coined in 1918 as a war measure owing to the delay in the shipment to India of the dies for the sovereign coinage, and to meet an emergency caused by the drain on the silver balances. On 16th August 1918 a branch of the Royal Mint commenced the coinage of sovereigns. It was established to assist in meeting the demand for currency. These questions are dealt with at greater length in the chapter on a gold currency and a gold mint. It is intended also to coin unrefined as well as refined gold. Yet another means of relieving the strain on rupees by gold was the coinage of gold in Australia on behalf of the Government of India.[1] By Section 6 of Act XIX. of 1917 (the Indian Paper Currency Amendment Act), which is to continue until six months after the war, provision was made that part of the Currency Reserve gold may be held in any part of His Majesty's Dominions or in transit therefrom, and notes issued against such gold in India.

(5) *The Growth of the Paper Currency*

Next as to Paper Currency. As far as possible the requirements of currency in circulation and in bank reserves were met by notes. The total increase of 58 per cent since in the active note circulation, and the issue of small notes of R. 1 and R. 2/8 to the extent of 12,35 lakhs,[2] are definite indications of the gratifying progress made in this direction :

CIRCULATION OF NOTES

(In crores of rupees.)

March 31 in each year.	Gross circulation.	Notes held in Reserve Treasuries.	Net circulation.	Notes held in Government Treasuries other than Reserve Treasuries.	Notes held in Presidency Bank Head Offices.	Active circulation.
1912 .	61	5	56	3	8	45
1913 .	69	13	56	3	6	47
1914 .	66	7	59	3	6	50
1915 .	62	6	56	3	9	44
1916 .	68	4	64	4	7	53
1917 .	86	4	82	3	12	67
1918 .	100	2	98	4	10	84
1919 .	153	3	150	4	12	134

[1] See Addenda and Corrigenda, p. 483.

[2] At the close of March 1919.

The gross circulation of one-rupee notes, which were first issued on December 1, 1917, increased from 33 lakhs on March 31, 1918 to 10,51 lakhs on March 31, 1919. The R. 2/8 denomination was put into circulation on January 2, 1918. The value of these notes in circulation, which amounted to R. 18 lakhs at the end of March 1918, reached R. 1,84 lakhs at the close of March 1919. The circulation of small notes would have been more satisfactory, especially in the jute districts of Eastern Bengal, had the notes been printed, if possible, on waterproof paper. In India notes are very liable (especially in Bengal with its vast rivers) to damage by water, and also to destruction by white ants and rats.

The increase in the gross circulation of paper currency in India at the end of December 1918, as compared with the pre-war level, was 109 per cent. Omitting Russia, the home of Bolshevik finance, where the paper currency has increased from £163,000,000 to £17,900,000,000, the growth in the following seven countries—the United Kingdom, India, Canada, United States of America, France, Japan, and Germany—is £3,409,000,000, or 323 per cent.

It is imperative in a country like India, where the cheque is not likely to be a popular form of currency up-country, to encourage the use of notes as a medium of exchange. In 1918 the bulk of the jute crop was financed for the first time by notes in place of rupees. In 1918 the Bank of Bengal remitted to Dacca, Naraingunge, and Chandpur in the busy season, August to October, for the moving of the jute crop, R. 5,67 lakhs in notes and only 52 lakhs in rupees. In the corresponding period of 1913, R. 6,78 lakhs were remitted in rupees and only R. 2 lakhs in notes.

Similarly the cotton crop was almost entirely financed by notes. A further illustration of the extended use of notes is given in Calcutta, where one of the largest exchange banks in March 1914 received 86·7 per cent of its total receipts in notes; in March 1919 this had risen to 96·27 per cent, leaving only a paltry 3·73 per cent in rupees. In the earlier part of the period efforts were continued to popularise the note issue by increasing its convertibility at treasuries. In 1918 these measures had to be, temporarily it is hoped, suspended. The rapid extension of the paper currency, especially in the crisis of 1918, led (1) to an increased demand for subsidiary coins, as the phenomenal absorption of small coin in 1918–19 on p. 57 shows; and (2) to a graver consequence, the notes changing hands in many places at a discount. This latter question is a defect hardly removable except by the renewal of encashment of the notes at every treasury in India. This is, as the Finance Member said in the Legislative Council in March 1919, "a consummation devoutly to be wished for, but at present somewhat distant. Happily, however, signs are not wanting that the people, as personal experience tells them that notes are accepted by Government at their face value, are acquiring greater confidence in resisting improper attempts to exact commission. It would be idle to pretend that paper can ever be viewed by the ordinary villager with the same assurance as metallic currency; the whole conditions of his life make that impossible; but it is legitimate to hope that, for the daily transactions of the market, our paper currency will steadily grow in popularity. Gratifying confirmation of this hope is found in the unexpected readiness with which our new low value notes have been accepted by the public."

In addition to the increase in the circulation of paper currency, we must add another of its characteristics in war time. We refer to the process of increasing the fiduciary portion of the Paper Currency Reserve (sometimes known, especially with regard to the investment of India Treasury bills, as the watering of the currency), which has proceeded apace since 1917. It is a somewhat depressing indication of the great financial needs of a world at war which requires a huge creation of buying power. How far the investments in the Paper Currency Reserve were increased will be seen in the following table (in £ millions sterling):

PAPER CURRENCY RESERVE INVESTMENTS AS ON MARCH 31

	1914.	1915.	1916.	1917.	1918.	1919.
Investments—						
In rupee securities: *						
(1) 3½ per cent loan of 1842–43 .	5	5	5	5	5	5
(2) 3 per cent loan of 1896–97 .	1	1	1	1	1	1
(3) Indian Treasury bills . .	..	..	..	..	..	4
Total (India)	6	6	6	6	6	10
In sterling securities :						
(1) 2½ per cent Consols . .	3	3	3	3	2	1
(2) British Treasury bills . .	..	..	4	23	32	54
Total (London) . . .	3	3	7	26	34	55
Grand total .	9	9	13	32	40	65

* Rupee figures converted at the rate of £1 = R. 15.

The rise noticed as early as 1916 was due to the internal currency position, which has given rise to considerable anxiety owing to the persistent hoarding of rupees, the disappearance of gold from circulation, and the continuous heavy military payments, as well as large advances to cultivators in the tracts afflicted with scarcity. Borrowing from the Paper Currency Reserve in order to meet the expenses of the war is never a wholesome exercise. It was a means of producing currency by the printing press, and once begun was very apt to continue. In India it has been pursued on a relatively modest scale, as compared with countries nearer to the scene of action, where the material loss which fell upon the world in these four years has been very great. Of all the forms of increasing our currency investment that of purchasing our own Treasury bills is the least desirable, and now that the tide has turned this method of making additional currency will be discontinued. Some contraction will perhaps be possible. In 1918 India Treasury bills were placed in the Reserve. This was done by the Controller of Currency (who is also Head Commissioner of Paper Currency) causing to be filled in Treasury bills in favour of the Head Commissioner of Paper Currency to the amount of the investment. Notes to that amount were then issued. This resulted in an increase in the circulation of notes and in the invested portion of the Paper Currency Reserve. There was simply an increase in the floating debt of Government, notes being set free to the extent of the paper cost of the Treasury bills. When British Treasury bills were purchased by the Secretary of State and placed in the London branch of the Paper Currency Reserve, a corresponding increase in the circulating medium of notes was, as we have seen, made in India.

(6) *Council Drafts*

In the first period, the period of uncertainty, which ended in the autumn of 1915, reverse drafts were sold in comparatively large quantities. In 1914–15 reverse drafts and transfers were sold to the extent of £8,707,000, bills at 1s. $3\frac{29}{32}$d. per rupee, transfers at 1s. $3\frac{13}{16}$d. and 1s. $3\frac{27}{32}$d. In 1915–16, £4,893,000 deferred transfers were sold at 1s. $3\frac{29}{32}$d. In 1918–19 reverse drafts were sold to the extent of £5,315,000 at 1s. $6\frac{1}{32}$d. for bills and 1s. $5\frac{31}{32}$d. for immediate telegraphic transfers.[1] With the revival of trade and confidence in the latter part of 1915–16 the demand in London for Council drafts recommenced. The sales and average rate of exchange were as follows :

	1915–16.	1916–17.	1917–18.	1918–19.
Sales of Council bills and telegraphic transfers (in crores of rupees)	30	49	51	29
Average rate of exchange (pence per rupee) . .	16·087	16·148	16·532	17·544

For those who wish to see at a glance the fixed rates for these drafts when exchange was raised, a table has been inserted on p. 306.

We sometimes hear that the Indian gold standard has broken down because our foreign exchanges have not kept to their pre-war limits. Such a statement is both misleading and incorrect. The Cunliffe Committee on "Currency and Foreign Exchanges after the War" deals with this point in regard to the English gold standard. "It will be observed that

[1] See Chapter IX. p. 271.

the fall in a number of the foreign exchanges below the old export specie points which has taken place since the early part of 1915 is not by itself a proof that the gold standard has broken down or ceased to be effective. During the present war the depredations of enemy submarines, high freights, and the refusal of the Government to extend state insurance to gold cargoes have greatly increased the cost of sending gold abroad. The actual export specie point has, therefore, moved a long way from its old position. In view of our enormous demands for imports, coupled with the check on our exports due to the war, it was natural that our exchanges with neutrals should move towards the export specie point. Consequently, the fall in the export specie point could by itself account for a large fall in our exchange rates. Such a fall must have taken place in the circumstances, even though all the conditions of an effective gold standard had been fully maintained." *Mutatis mutandis* the same is true of the Indian standard. During this war period there were (1) large exports of munitions of war, (2) greatly curtailed imports, and (3) cataclysmic changes in the movement and in the cost of remitting treasure. The fulcrum of the whole system, the gold standard reserve, is undoubtedly strong, and the standard is operating to-day in the way that it did before the war. The machinery is the same. Only the exchange value of the rupee has moved away from 1s. 4d. to a higher level, because it was impossible to turn out rupees at a loss, and to place a permanent premium on the melting and export of rupees.

In very few other countries has sterling exchange been regulated, certainly up to the autumn of 1917, with such advantage to trade. If exchange had not been controlled, and if instead of being pegged it had been left to find its own level under the normal laws of supply and demand, it would have soared to a much higher level, and, what is particularly undesirable, it would have fluctuated at frequent intervals. So far from breaking down in the strain and stress of war the Indian currency system has shown that it possesses the two attributes of an ideal currency, security and elasticity. Greater security, it is true, is still mostly desirable, as the war has indicated, in regard to the rupee reserves in India and the gold holdings abroad. The elasticity of the system is seen in various ways. It is also seen in the issue of notes. Since the outbreak of war, when the ear-marking of gold in London was no longer possible as in pre-war days, notes have been issued against British Treasury bills and also against gold deposited (usually by Exchange Banks or their agents) in Australia and elsewhere in the Dominions. Increased facilities have been made for the conversion of notes at district treasuries and at certain branches of the Presidency Banks, and not merely, as the law requires, at special currency centres. Elasticity is also evident in the issue of funds, since Government maintain a separate treasury system as in the United States. The transfer of balances from one part of the country to another for Government's own purposes or for banks or firms need not again be described. These transfers are frequently on a large scale, and Government, by their commanding position in this respect and also in the sale of Council drafts drawn by the Secretary of State in Calcutta, Bombay, and Madras, render very great assistance to trade in the making of remittances. Lastly, the elasticity of the currency system was improved during war time as a result of the large disbursements that had to be made in the money market. It was necessary to avoid anything in the nature of an excessive stringency, especially in the raising of loans. It was equally necessary to attempt the solution of an old question —the holding of large balances by Government in the busy season at a time when the demand for currency is at its greatest. It was decided, therefore, to grant temporary loans from these balances to the Presidency Banks during the busy season. By granting loans through these central banking institutions these resources were made available at times of stringency in the most effective possible manner. The locking up of funds in the Reserve treasuries was also reduced to a minimum. The decrease in recent years in the holdings in Reserve treasuries is very noticeable. The balances of Government at the Presidency Banks were kept much above, sometimes very much above, previous standards. The policy was also further extended by leaving the proceeds of public loans with the banks until actually required. The chief problem in the future will be to perfect this elasticity and to make the system still more flexible to trade requirements. With a greater development of banking habits this will be brought about. An improved banking system possessing a network of branch banks up and down the country-side—in which a Central or State Bank or a Board like the Federal Reserve Board of the United States would have a directing influence —would no doubt lead to the management of the treasury balances and the paper currency by such a bank with still greater elasticity to the currency system.

IV

SUMMARY—1914 TO 1919

Among the lessons that we have learnt and are learning as a result of the experience gained during the war, the most fruitful on after-war currency policy are (1) the value of liquid gold in reserves; (2) the importance of imports of treasure, especially gold, in the liquidation of the balance of trade in favour of India; and (3) the necessity of large rupee balances ready to meet abnormal strain. The first period repeated the lesson of the exchange crisis of 1907-8, the necessity of adequate and liquid reserves of gold to prevent a weakening of exchange. The second period gave birth to new ideas on the high importance of silver in the Indian currency system, and also to a condition of things that the Chamberlain Commission did not envisage. In paragraph 79 of their Report the Commission said, with reference to the Gold Standard Reserve, that it is "only to provide a reserve sufficient to convert into sterling such amount of rupees as may at any moment seek export; in other words, such amount as the owners require to exchange for sterling in order to settle debts due in sterling." It was not always realised before the war that the excess of exports over imports of commodities was liquidated to the extent of 46 per cent by the import of treasure *on private account* (*i.e.* excluding transactions which do not enter into the balance of trade), and of this 37 per cent was in gold. It was the reduction in this percentage of treasure to 2 per cent in 1916–17, 25 per cent in 1917–18, and 0·1 per cent in 1918–19 that drew public attention to this important fact. It inevitably produced a strain on rupee balances, and this forced Government to purchase silver to keep up its balance to a working minimum. The excess of exports over imports of commodities was liquidated to the extent of 50 per cent by the import of treasure (excluding transactions not entering into the balance of trade), both on private and on Government account in the five pre-war years. In 1916–17 this percentage was 25 ; in 1917–18, 50, and in 1918–19, 75.[1] It was Bagehot who said that "one of the greatest pains is the pain of a new idea." India cannot be denied a share of the world's gold without grave consequences to her rupee exchange, and hence to her commerce and industry. The legislation of April 23, 1918, in America, the most important legislation of its kind in any country for over a quarter of a century, was indeed a crowning mercy. It is unlikely that a similar stroke of good fortune will again present itself to enable the Finance Department of the Government of India to shovel out rupees with such persistency and skill as in 1918–19. More education and better education to remove the appalling illiteracy, and therefore distrust, will take time, but it is one of the many of our Indian problems that is so well worth the doing.

Silver, it seems, will always try to habilitate itself in India, especially if gold is hoarded in the reserves of other countries. We can economise by a careful use of convertible notes and by an extended use of nickel, perhaps also of German silver, for subsidiary coinage, such as four- and eight-, perhaps even twelve-, anna pieces. But subsidiary coinage is small

[1] These percentages, which are high compared with those on private account, are due to the large imports of silver by Government.

in comparison with rupee coinage. The one-anna nickel piece introduced in 1907 and the two-anna nickel piece in 1918 have, as we have seen, proved to be popular.

Signs of improvement have dawned in the financial sky in 1919, but the refurbishing of our currency armoury and the removal of the cobwebs were not to be delayed. That the Indian Currency Committee have set out to do in very difficult circumstances, and it will call for the exercise of the greatest skill and ingenuity.

CHAPTER IV

INDIAN CURRENCY IN THE NINETEENTH CENTURY

I

THE FOUR CURRENCY PERIODS

THERE is an almost Euclidian precision about the main events in Indian currency during the nineteenth century. We have, therefore, no reason, since the main events stand out in great clearness, to be repelled by the details which are to be found, one might even say in bales, in the archives of Government. With a little of the art of selection one can pick out from these papers the facts which will tell most. The century divides itself conveniently into four periods. There is in the first place the period up to the passing of Act XVII. of 1835, the year in which one uniform silver rupee was declared to be the standard coin for the whole of British India. The second period comprises nearly forty years following the passing of the Act of 1835. It extends up to the Resolution by the Government of India, dated May 7, 1874. This was the period in which efforts were made to introduce a gold currency, and proposals for a gold standard were put forward in more than one quarter. The third period extends from 1874 to 1893. It was the period of a falling and unstable exchange with all its attendant woes. This was, too, the period of agitation for currency reform. The fourth and last period, from 1893 to 1900, saw the closing of the Mints to the free coinage of silver and the switching on of India to the gold standard, the standard in vogue in all the chief countries of the world except China. In these seven eventful years, eventful from a financial and currency point of view, there were two Committees on Indian Currency—the Herschell Committee which reported in May 1893, and the Fowler Committee which submitted its valuable report in July 1899.

II

THE FIRST PERIOD (TO 1835)

In the first of these four periods there are very many events of interest to the numismatist, but of much less importance to the student of currency. We must, therefore, be studiously careful not to be beguiled into looking at the trees in place of the wood. Our sources are entirely official despatches, regulations, House of Commons papers, and the work of a very remarkable man, James Prinsep, F.R.S., whose "Useful tables illustrative of the coins, weights, and measures of British India" is almost the *locus classicus* of this period. Prinsep[1] (1799–1840) arrived in Calcutta in 1819 as Assistant Assay Master at the Calcutta Mint. In 1832 he succeeded Dr. Wilson (afterwards Boden professor of Sanskrit in Oxford) as Assay Master and Secretary to the Mint

[1] The famous Prinsep's Ghat (or landing-place), Calcutta, on the left bank of the Hooghly is a memorial to him.

Committee, Calcutta. He was, his biographer tells us, the author of the reform of a uniform coinage, under which the Company's rupee was substituted in 1835 for the various coinages then existing. This measure was, as we shall see, successful, and by the coinage of fifty million pieces in one year, the old sicca [1] currency of Bengal proper was entirely replaced.

The main feature of this period is that the system of currency was gradually improved and unified for the whole of British India. The currency system was based upon that of the Mogul Empire. By the end of the eighteenth century there were so much inconvenience and loss from the circulation of so many denominations of gold and silver coins of different values in different districts [2] that the Court of Directors desired the adoption of one general system for the whole of the Company's possessions in Asia. This was forcibly brought out in a Despatch from the Court of Directors to the Madras Government dated April 25, 1806. This Despatch resulted in a prolonged discussion with that Government as to the standard coins, and at length in 1818 a proclamation was issued at Madras declaring that the silver rupee was, in future, to constitute the standard coin of the Presidency and was to contain 165 grains of pure silver and 15 grains of alloy. In the Despatch of 1806 the Directors considered that "the money or coin which is to be the principal measure of property ought to be of one metal only," and they

[1] From the Arabic *sikka*, a coining die; 116 current rupees (*chalāni*) were equal to 100 sicca rupees, or 106⅔ Company's rupees. In the Company's reports to Parliament accounts were usually in "current rupees," which were converted into sterling at the rate of 2s.

[2] Section 14 of Bengal Regulation XXXV. of 1793 gives twenty-seven varieties of rupees "current in the several districts" to which the Regulation was to apply.

had no doubt that in India such coin must be of silver. The standard weight of the coin, they considered, should be 180 grains, of which 165 grains or $\frac{11}{12}$ths should be fine silver, and 15 grains or $\frac{1}{12}$th alloy of copper.

> Although we are fully satisfied of the propriety of the silver rupee being the principal measure of value and the money of account, yet we are by no means desirous of checking the circulation of gold, but of establishing a gold coin on a principle fitted for general use. This coin, in our opinion, should be called a gold rupee, and be made of the same standard as the silver rupee, viz. 180 troy grains gross weight, and 165 troy grains fine gold, also divided into halves and quarters, that the coins of both gold and silver should be of the same denomination, weight, and fineness.

In the proclamation of 1818 the public accounts of Madras were to be converted from the star pagoda into the Madras rupee, at the exchange of 350 rupees for 100 pagodas. The coinage of the pagoda was discontinued, " but, for the convenience of the public a coinage of gold rupees will be issued, and will be paid and received by all public officers, at such rate as may be determined by the proclamation of Government. The present rate, until altered by proclamation, will be that of one gold rupee for 15 silver rupees." In 1829 the currency of Bombay was equalised with that of Madras, by the adoption of the 180 grain rupee and mohur (gold rupee). Previous to the Madras Government proclamation of January 7, 1818 the standard coin of Madras was the gold star pagoda of 52·56 grains, 19½ carats fine, while in other parts of India the coin in most common use was the rupee. In the words of the Bengal Regulation XXXV. of 1793, silver was "the general measure of value throughout the country."

According to Prinsep, the unit of the old Hindu system of coinage was gold, 60 or 120 grains weight showing a connection with the Greek drachma and didrachma of gold; and Mohammedan rule never having gained complete ascendency in Southern India, the Mogul system of coinage of Northern India, with its characteristic coins, the rupee and mohur, was not in common use.

The silver rupee was introduced, according to Abú'l-fazl, by Sher Shah, who usurped the throne of Delhi from Humáyun in the year 1542. Previous to his time, the Arabic dirham (silver drachma), the gold dínár (denarius auri), and the copper falús (follis) formed the currency of the Moghul dominions. . . . We may assume the original weight of the rupee from Abú'l-fazl's statement to have been eleven and a quarter máshas. [1]

Thus the rupee has been in existence for 380 years. The first English rupee was coined nearly 250 years ago in Bombay,[2] but it was not till 1758, when British rule was established, that British rupee coinage was seriously undertaken. In Mogul times the emperors up to the time of Mohammed Shah coined rupees of 175 grains pure. Gold was allowed to be coined only in Agra, Ahmedabad, Kabul, and in Bengal, while in ten other places silver might be coined, including Allahabad, Surat, Delhi, Patna, Lahore, Multan, Tanda, and Kashmir. In twenty-

[1] *Prinsep's Tables*, p. 19 (1858 edition). If the rupiya (or silver piece) was 11¼ mashas, and if the Delhi masha is 15·5 grains, this coin was 178·25 grains of what was considered pure silver. Chalmers (*Colonial Currency*, p. 336) is not quite correct in giving the weight as 176 grains.

[2] The Queen Elizabeth "portcullis pieces of eight" were coined in 1600 for import into and circulation in India. "The rupee of Bombaim" of 1677 weighed 167·8 grains.

eight minor towns, in addition to the former, copper coinage could be undertaken.

But to return from this digression. In 1833 a Regulation (No. VII. of 1833) in which the hand of Prinsep is clearly evident was published. The preamble shows how uniformity was steadily being attained. It runs thus:

By a Resolution of the Governor-General in Council, dated the 10th of September 1824, the Furruckabad rupee was ordered to be coined of 180 grains, 165 fine and 15 alloy, and was declared the legal currency of the Saugor and Nerbudda territories. It is considered expedient to adopt this weight and standard for the Furruckabad rupee at the Calcutta as well as at the Saugor mint, instead of that described in Section V. Regulation XI. 1819, from which it differs very slightly, and to make the Furruckabad currency correspond in weight and intrinsic value with the new currency of the Madras and Bombay Presidencies. It is likewise convenient to make a trifling alteration in the weight of the Calcutta sicca rupee, as prescribed by Clause 1, Section I. Regulation XIV. 1818. It is further convenient to introduce the weight of the Furruckabad rupee as the unit of a general system of weights for Government transactions throughout India under the native and well-known denomination of the tola.

The tola was made equal to 180 grains troy. The weight and standard of the sicca and Furruckabad rupees were as follows:

	Weight grains.	Fine grains.	Alloy grains.
Calcutta sicca rupee .	192	176	16
Furruckabad rupee .	180	165	15

and their fractions in proportion, being $\frac{11}{12}$ths pure and $\frac{1}{12}$th alloy.

From an examination of the Calcutta Mint Committee's Proceedings, 1833–1835, we find that the first proposal for a uniform coinage of rupees emanated from Prinsep in a letter dated April 12, 1833. The

Governor-General in Council approved the proposals to make (1) the Furruckabad rupee struck at the Calcutta Mint 180 grains troy instead of 180·234 as provided by Regulation XI. of 1819, and (2) the Calcutta sicca rupee 192 grains instead of 191·916 as provided by Regulation XIV. 1818 (Section I.). Regulation No. VII. was accordingly issued in 1833. Steps continued to be taken to improve and to unify the rupee. In the Mint Proceedings of December 1834 a letter dated December 25 and signed by Sir H. Thoby Prinsep runs thus :

' The Right Hon'ble the Governor-General of India in Council is prepared to take immediate steps . . . to confine the coinage to rupees of 180 grains of the standard current in the Madras, Bombay, and Agra Presidencies and in the new territory of the Bengal Presidency in discontinuance of the issue of Calcutta sicca rupees of the 19th Sun of Shah Alum.[1] It will be necessary for the Mint Committee to make preparation for this important change, and His Lordship in Council will expect to receive any suggestion on the subject that the Committee may think it necessary or proper to offer.

On May 27, 1835, a Resolution of the Finance Department was published to the effect that "It has been determined by the Governor-General in Council to establish one uniform rupee corresponding in value, weight, and standard with the present Furruckabad, Madras, and Bombay rupees, but of new device, and to declare and make the same current in all the presidencies and possessions of the British Nation in India."[2] The following Act (Act XVII.)

[1] These were "19 Săn Sikkah" because struck in the nineteenth year of Shah Alam, the last of the Moguls. San or Sun is a year. Like Samvat it is also applied to the years of an era as above.

[2] Quoted in the June Proceedings (1835) of the Calcutta Mint Committee.

was passed on August 17, 1835, and came into force with effect from September 1 of that year:

I. That from the first day of September 1835, the under-mentioned silver coins only shall be coined at the mints within the territories of the East India Company—a rupee, to be determined by the Company's rupee—a half-rupee—a quarter-rupee—and a double rupee, and the weight of the said rupee shall be 180 grains troy, and the standard shall be as follows:

$\frac{11}{12}$ or 165 grains of pure silver,

$\frac{1}{12}$ or 15 grains of alloy,

and the other coins shall be of proportionate weight and of the same standard.

IV. That the said rupee shall be received as equivalent to the Bombay, Madras, Furruckabad, and Sonat rupees, and to fifteen-sixteenths of the Calcutta sicca rupee.

V. That the Company's quarter-rupee shall be a legal tender only in payment of the fraction of a rupee.

VII. That the under-mentioned gold coins only shall henceforth be coined at the mints within the territories of the East India Company. [The coins were the gold mohur or R. 15 piece of the weight of 180 grains troy $\frac{11}{12}$ths fine, a five-, ten-, and thirty-rupee piece, and these three coins were to be of the same standard as the gold mohur.]

IX. That no gold coin shall henceforth be a legal tender of payment in any of the territories of the East India Company.

From the passing of this Act to the present time the weight and fineness of the rupee has remained unchanged. This Act also made this rupee the sole standard of value throughout British India. It is from this year, too, that complete returns of the imports, exports, and coinage are available.

III

The Second Period (1835–1874)

The second of the four periods covers nearly forty years. By Section IX. of Act XVII. of 1835 no gold was henceforth to be legal tender in the Company's territories in India. From time to time, however, efforts were made to introduce gold into circulation. By a proclamation issued on January 13, 1841, treasury officers were authorised freely to receive gold coins struck in accordance with the Act of 1835 at the rates indicated by the denomination of the pieces until these should have exceeded the limits of lightness prescribed in that proclamation. Gold coins were thus accepted in payment of public dues, but they were not popular. Indeed in 1847 we are told that gold formed "no part of currency." With the influx of gold, consequent on the Californian and Australian gold discoveries, the value of gold relative to silver began to decline. In a Finance Department notification dated December 22, 1852, the proclamation of 1841, so far as it authorised the receipt of gold coins into the public treasuries, was cancelled with effect from January 1, 1853, and gold was no longer received in settlement of Government dues at the treasuries. Gold continued to be received at the Mints for coinage under the Act of 1835, but Mint certificates for gold coins were discharged in gold only, and no certificate for gold was accepted in payments to Government. The main fact that emerges from a study of these official pronouncements following 1852, especially those of the 'sixties, is that gold did not depreciate in the way that was anticipated. Attempts, therefore, were made from 1859 until the end of this period to extend the use of gold coins.

In 1859 a Financial Member of Council was for the first time appointed, an event which is of great importance in the history of this period. For the first time the nettle of currency and finance was grappled. Before this the financial work of Government had been done by the Governor-General and his Council collectively, and prior to Lord Canning's viceroyalty there was little or no distribution of business among the members. The disordered state of the finances after the military and political convulsion of the period rendered it essential that an expert should be appointed upon whom would devolve the charge of the finances, the Governor-General retaining his supreme control, the other Members of Council remaining generally responsible for finance as for all other branches of administration. It was decided to obtain a financier from England. The choice fell on the Right Hon. James Wilson, a distinguished Scotch economist, who had formerly been Under-Secretary of State to the Board of Control for India, then Financial Secretary to the Treasury, and at the time of his appointment Vice-President of the Board of Trade. As Bagehot, then editor of the *Economist* and Wilson's son-in-law (for he married the eldest of Wilson's six daughters), wrote :

> There was a general impression that some one with an English training and English habits of business would have a better chance of overcoming the most pressing difficulty of India than any one on the spot. And there was an equally general impression that if any one were to be sent from England to India with such an object, Mr. Wilson was the

right person. He united high financial reputation, considerable knowledge of India acquired at the Board of Control, tried habits of business, and long experience at the English Treasury, to the sagacious readiness in dealing with new situations which self-made men commonly have, but which is commonly wanting in others. On personal grounds Mr. Wilson was disinclined to accept the office.[1]

An oak, it is said, should not be transplanted at fifty, but this did not apply to Wilson, who, when he arrived in Calcutta at the end of November 1859, was fifty-four. He was gifted with an abundant stock of freshness and variety. According to the late Lord Welby, Wilson was not only greatly interested in currency questions, taking the side opposed to Peel, Overstone, and Sir Charles Wood, but was also perhaps the most vigorous and efficient Financial Secretary which the Treasury ever had, superior even to Huskisson as an administrator. In the short space of eight eventful months in India (for Wilson died in Calcutta from dysentery in August 1860) he made an extended tour from Calcutta to Lahore and back, which much impressed on him the undeveloped resources of the country. In regard to currency he introduced a Government paper currency scheme which, with modifications, became law in the regime of his successor. He also examined the question of a gold currency. In a despatch dated May 26, 1860, Sir Charles Wood approved of the general proposal to introduce a paper currency, and, "without entering into the reasons contained in Mr. Wilson's minute," said that Her Majesty's Government concur that it is not "advisable at present to take measures

[1] *Memoir of the Right Hon. James Wilson* (Supplement to the *Economist*, 1860).

for introducing a gold currency into India, as they believe that the wants of the community will be better met by means of a paper currency." The details of Wilson's scheme for a paper currency must be postponed to a subsequent chapter. For the first time in India the budget introduced in the Legislative Council in February 1860 was framed on the English model. A system for an effective audit was also begun. He brought forward a scheme of new taxation, including an income tax, that was successfully carried into effect. Wilson stimulated the work of the Military Finance Commission over the entire range of army expenditure, secured the appointment of a Commission to review the numerous branches of civil expenditure, and made arrangements for reorganising the police throughout India. He checked extravagance, but saw that a wise economy could be attained only in combination with efficiency. In the words of his immediate successor, Mr. Laing, "a Government to be well served and generally respected must never do a sharp, mean, or illiberal act, for depend upon it the paltry saving of to-day will come back with tenfold expense and a hundredfold discredit on the morrow." The other Finance Members of this period—Mr. Laing (1861–1862), Sir Charles Trevelyan (1863–1865), Mr. Massey (1865–1868), and Sir Richard Temple (1868–1874)—continued the policy of financial reconstruction which Wilson had begun with such verve, vigour, and life—and, one might even add, enjoyment.

With the exception of Mr. Wilson every Finance Minister during this period supported a gold currency. In 1864 the Chambers of Commerce of Calcutta, Madras, and Bombay, the Bombay Association representing the Indian mercantile community, and the Indian merchants and bankers of Calcutta memorialised the Government of India for a gold currency. There was general agreement that a gold currency should be introduced. A perusal of the correspondence will show that the arguments for its introduction were not convincing. Nor was there put forward any very definite method as to how such a currency might be introduced. The Bengal Chamber in its memorial counselled caution as they were "opposed to any sudden change being attempted, fearing that any such attempt would prove unsuccessful, and be likely to cause great derangement in the commerce and finance of India, and probably also in the money markets of Europe, if a large quantity of gold were suddenly required to carry out such a change." Sir Charles Trevelyan,[1] the Finance Member of Council, proposed in an elaborate minute, dated June 20, 1864, that "sovereigns and half-sovereigns, according to the British and Australian standard, $\frac{11}{12}$ths fine and £3 : 17 : 10½ an ounce, coined at any properly authorised Royal Mint in England, Australia, or India, should be declared legal tender in India at the rate of one sovereign for 10 rupees; and that the Indian Mints should be open to the receipt of gold bullion on the above-mentioned terms to be redelivered in coin at a charge merely sufficient to cover the cost of

[1] Sir Charles Trevelyan (1807–1886), Governor of Madras, was recalled to England after a year of office in February 1860, on account of the publication of his views against Wilson's taxation proposals. He succeeded Laing in 1863 as Finance Member, returning to England in 1865. He married in 1834 Lord Macaulay's sister when Macaulay was a member of the Supreme Council and one of his greatest friends. He was Deputy-Secretary in the Political Department of the Government of India in 1831, and for nineteen years (from 1840) Assistant Secretary to the Treasury.

manufacture, which is much below the present charge of 1 per cent. The Mint charge on silver should be maintained at the existing rate of 2 per cent. The Government currency notes would be payable either in rupees, or in sovereigns at the rate of 10 rupees. No bullion, either in gold or silver, should be received in exchange for notes." After the proposals had been placed before the then Secretary of State (Sir Charles Wood), it was decided not to make sovereigns or half-sovereigns legal tender. It was, however, notified by the Government of India in the Finance Department in November 1864 that "sovereigns and half-sovereigns coined at any authorised Royal Mint in England or Australia of current weight, shall, until further notice, be received in all the Treasuries of British India and its dependencies in payment of sums due to the Government, as the equivalent of 10 and 5 rupees respectively; and that such sovereigns and half-sovereigns shall, whenever available at any Government Treasury, be paid at the same rates to any person willing to receive them in payment of claims against the Government." A notification of the same date authorised the issue of notes in exchange for sovereigns or half-sovereigns at these rates to an extent not exceeding one-fourth of the total amount of issues represented by coin, or by coin and bullion in each circle. In March 1865 the Bank of Bengal addressed the Government of India regarding the practical working of these notifications, pointing out that sovereigns would neither be held in large quantities nor enter into general circulation so long as an uncertain value attaches to them. "With the experience of the past three months before them, the Directors" thought that "the time has come when sovereigns and half-sovereigns of full weight may, with safety and advantage, be declared legal tender at the respective rates of 10 and 5 rupees; and that the introduction of the sovereigns into the currency of India will be generally welcomed as a great public boon." The Secretary of State (Sir Charles Wood), in replying in May 1865 to the Government of India, who forwarded the letter, did not believe that the time had arrived for taking any further steps. This year, it will be remembered, marked the signing of the first Latin Union Treaty when France, Belgium, Italy, and Switzerland agreed to a uniform and interchangeable coinage of gold and silver, all the gold coins and the silver 5-franc pieces being made legal tender in the states of the Union. There was, in other words, a considerable movement in currency matters in regard to which India could not be a disinterested spectator, especially in the following period (1874–1893), when the vagaries of silver were very marked.

The Bengal Chamber at the beginning of 1866 again urged the adoption of a gold currency. The Government of India decided to appoint a Commission under the presidency of Lieutenant-General Sir William Mansfield to report upon the operation of the Paper Currency Act, and any arrangements for rendering it more effective, and "upon any extension of the monetary system which the increasing commerce and prosperity of the country may seem to require." Mr. Massey, the Financial Member of Council, considered "that the Commission may desire to pursue their inquiry into the expediency of giving a further development to the experiment which has been partially tried of introducing gold as part of the circulating medium; that nothing short of the recognition of the sovereign, or some other denomination of gold coin, as a legal tender, will suffice; and secondly, that the result of this recognition must be sooner or later the establishment of the more precious metal as the ruling standard." The Commission reported in October 1866 "that gold coins of 15, 10, and 5 rupees respectively would find more favour in the eyes of the people than notes of like value; that the introduction of gold would facilitate the establishment of the currency notes, outlying treasuries being assisted by such a measure towards the convertibility of the notes; and that the opinion is general, almost unanimous, that the currency should consist of gold, silver, and paper. With such evidence of the general wish of the country before them the Commission cannot hesitate to express a hope that the Government of India will persevere in the policy which was recommended for the approval of the Secretary of State two years ago, viz., to cause a legal tender of gold to be a part of the currency arrangements of India, that which is believed to have been erroneous in the original proposal being modified so that the rupee price of the sovereign would be correctly adjusted. The fact is clearly shown that the real par of the sovereign is somewhat above 10 rupees. If this be admitted, and the evidence is such that no doubt can be entertained with regard to the fact, the Commission may perhaps be excused for believing that the Government of India had not the advantage of exact information when it adopted the views imparted to the Secretary of State in 1864."

It is important to note that in the following year (1867) the first of the four great conferences on currency problems, known as International Monetary Conferences, *par excellence,* was held in Paris between the representatives of eighteen of the principal countries of Europe and the United States. There were few indications of the absorbing topics of the subsequent conferences, viz., the future of silver and bimetallism. At this conference gold was declared to be the only standard suited to international money, and a single gold standard, with the consequent scramble for gold, now received almost official recognition. A scarcity of gold was anticipated by the Conference, and a resolution was adopted that "in countries that have had the silver standard up to this time, as well as in those of the double standard, the relation between the value of gold and silver should not be established at a rate too low to permit the serious introduction of gold." These facts are significant, and their importance will be evident in the difficulties that India had to meet in the third period of her currency history.

On the retirement of Mr. Massey in 1868, Sir Richard Temple was appointed. Unlike Mr. Massey he possessed abundant energy and, on assuming charge in April 1868, proceeded to examine currency questions with great zeal and assiduity. In a minute dated June 1868, he showed that the Notification issued in November 1864 to encourage the circulation of the sovereign had remained inoperative, ten rupees not being sufficient to attract sovereigns, as the rate was somewhat below the average market value of the sovereign. This view, Sir Richard Temple said, was further enforced in the Mansfield Currency Commission's report, and it was desirable to consider the question of raising the rate somewhat above ten rupees. In October 1868, therefore, a notification was issued modifying that of November 1864, so that the rate for receipt of sovereigns and half-sovereigns at public treasuries was raised from R. 10 and R. 5 to R. 10-8 and R. 5-4 respectively. The gold pieces in Section 7 of Act XVII. of 1835, quoted above, were also henceforth to be received according to the values stated in that Act, *i.e.* at the rate of 15 rupees to the mohur.

In 1870 previous legislation on coinage was consolidated and amended, and passed into law as the Indian Coinage Act, No. XXIII. of 1870.

The two chief currency events during the last four years of this period were (1) the fall in the gold value of the rupee, and (2) further efforts to introduce gold into circulation. In 1870-71 the gold price of silver and the Indian exchange on London fell steadily. This resulted in serious disturbances to Indian trade, and by 1873 we see the beginning of an agitation that lasted until the closing of the Mints to the free coinage of silver. In 1872 Sir Richard Temple laid before the Government of India a comprehensive memorandum, together with appendices on the subject of a gold currency. His views were briefly that a gold currency was wanted in India; that a gold coinage (representing 15, 10, and 5 rupees) was already in existence, but these coins were not legal tender; that Government should decide that a legal tender gold currency was required; that a Commission should be appointed in order to ascertain definitely what should be the rating or the relative value of gold and silver; that in the meantime certain subsidiary measures should be taken in order to attract gold in greater quantities to the treasury in India. The Finance Member forwarded a series of notes by Mr. G. Dickson, Secretary to the Bank of Bengal, who recommended (1) the receipt of English and Australian sovereigns into all the Government treasuries of India, without restriction, and whether tendered in payment of Government dues or in exchange for silver ; (2) in conformity with the provisions of the Currency Act the issue of currency notes should be similarly authorised in exchange for gold bullion tendered at the Mint for coinage into Indian gold sovereigns at the rate of 10 rupees for 120 grains of gold of standard fineness, less seigniorage. It is interesting to note how these proposals anticipated later events. We shall have again to refer to Mr. Dickson in connection with his memorandum of 1867 on a proposal to amalgamate the three Presidency Banks. Mr. Dickson, it may be mentioned, was in the service of the Bank of Bengal from February 1860 until his resignation in September 1872, and his services as a non-official adviser in financial affairs in this period were unmistakably great. Before joining the service of the Bank of Bengal he was Secretary and Inspector of the Caledonian Banking Company, Inverness, where his practical ideas on currency and banking were obtained. In July 1873 Sir Richard Temple again put forward his views in a memorandum, but the Council of the Governor-General was not unanimous, as there were some who deprecated any immediate steps being taken by Government. The upshot finally was that on May 7, 1874, the Government of India issued a Resolution which clearly defined their attitude. It ran as follows: "The expediency of introducing a gold currency having been considered, the Governor-General in Council is not at present prepared to take any step for the recognition of gold as a legal standard of value in India."

This closes the second of the four periods into which the currency history of the nineteenth century divides itself. From 1859 it was a period of financial reconstruction begun by the great Wilson and carried on by his worthy successors. It is sometimes difficult to realise how chaotic was Indian finance after the convulsion of 1857. We have, however, only to turn to the official papers of the period. In his first speech to the Legislative Council, February 18, 1860, for example, the Finance Member incidentally remarked: "Very recently it was discovered that, in furnishing the accounts from Bombay of the military expenditure, an error had been made of nearly £600,000, and in those from Madras an unexpected increase in the Commissariat Department took place to the extent of £300,000. In the Public Works Department also an unexpected increase of a considerable amount has taken place. Then again, the September account was furnished without any reference to Railway advances for interest on the one hand, or receipts from traffic on the other, which makes a difference of £833,300." It is unnecessary to give other examples. But one thing is certain, and it is this: that India owes an incalculable debt of gratitude to this Scotsman whose inexhaustible vigour, marvellous memory, and remarkably even judgement were invaluable in this financially critical period. Like Bagehot and the late Sir Inglis Palgrave he knew his Adam Smith through and through, and he approached the whole subject of economics, especially that part of it, finance, from the practical and realistic standpoint. In his minutes and in his speeches the influence of the teaching of

Adam Smith is clearly discernible, and he does not fail to quote him to bring home his arguments, as, for example, in the speech introducing the Paper Currency Bill, March 3, 1860: "Adam Smith, I think, it is who compares the economy (of using paper currency) to a discovery by which all your locomotion could be conducted without roads, and by which you were enabled, therefore, to add the existing roads to the portion of the land under reproductive cultivation." He was, however, the exact antithesis of Adam Smith that "awkward Scotch professor, apparently choked with books and absorbed in abstraction. He (Adam Smith) was never engaged in any sort of trade, and would probably never have made sixpence by any if he had been. His absence of mind was amazing. On one occasion, having to sign his name to an official document, he produced not his own signature, but an elaborate imitation of the signature of the person who signed before him."[1] How different was Wilson, the pre-eminent Financial Member of Council during the period of the building up of India's finances.

IV

The Third Period (1874–1893)

The Struggle for Bimetallism

No period of our currency history is so rich in literature as is the third period, 1874–1893. The ink used in official despatches, minutes, House of Commons papers, the *procès-verbaux* of the monetary

[1] "Adam Smith as a Person," vol. vii. *The Works and Life of Walter Bagehot*, Mrs. Russell Barrington.

Conferences of 1878, 1881, and 1892, not to mention the reports of the Gold and Silver Commission, and the Herschell Committee on Indian Currency, was sufficient to float almost a dreadnought. A perusal of the official papers that have been published prompts one to the belief that in regard to this important question Government, like the general public, wrote much and almost did nothing but write. Although the link between gold and silver was broken by 1874 nothing was done until nineteen years later, in June 1893, when the Indian Mints were closed to the free coinage of silver. A cynic might say that we practised a different economy from that which prevails in the farmyard, and sat contentedly upon eggs that had long since been addled; that, in other words, the currency machine was the master of the man, not the man of the machine. It must be remembered, however, that despite the action of the Latin Union and the failure of the monetary Conferences of 1878 and 1881, bimetallism was still a practical question provided an international agreement could be reached, and it was only after the failure of the Brussels Conference in 1892, and the desire of the Home Government to keep to the monometallic standard for the United Kingdom that bimetallism was no longer a feasible one for India.

The year 1874 is a convenient landmark. It was, as we have seen, the year in which the Government of India came to a definite conclusion in regard to the recognition of gold as a legal standard of value. It was, too, the year which had the painful honour of bowing out Sir Richard Temple, and of ushering in a permanent successor in Sir William Muir, then Lieutenant-Governor of the North-Western Provinces and afterwards a member of the Secretary of State's Council until his resignation on appointment to the Principalship of Edinburgh University. The year 1874 was also the real beginning of the most significant fact of the currency history of the century, the great change in the monetary status of silver. This was a question of profound importance to India, and the popular question at the time of this long and exciting discussion was, "Are you a bimetallist or a monometallist?" In December 1871 Germany began to abandon her silver standard, and her example was followed by Denmark, Sweden, Norway, and later by Holland. In January 1874, the Latin Union—France, Belgium, Italy, and Switzerland—suspended the free coinage of silver. Gold and silver for the first time since the French law of the 7th Germinal, An. XI. (1803) (which enabled one metal to take the place of the other as an unlimited legal tender) were used as a circulating medium without, as it were, any connecting pipe between the reservoirs of gold and silver. The precious metals became in relation to one another simply commodities. There was none of what Jevons would have called equilibratory action which distributed an excessive supply or demand over both. From this year bimetallism very slowly and imperceptibly and with great difficulty began to move off the stage of practical politics, notwithstanding that there were many in India and elsewhere who believed it to be possible by international agreement. Bimetallism was, of course, a system by which the Mints were open to coin any quantity of either gold or silver that was brought to them, and debtors could discharge their liabilities at their option in either gold or silver at a ratio fixed by law.

The period 1874 to 1893 is then the period of the fall in the gold price of silver. It is sometimes known as the period of the depreciation in the price of silver, although this is open to objection, since it contains the suggestion that it was silver that had changed while gold had not. As the Report of the Gold and Silver Commission, 1888, reminds us, this is a debatable point. Looking back over this period we see that with the fall in the gold price of silver there was a general fall in the gold price of commodities due, among other causes, to the increased demand for gold in gold-using countries. The change in this respect in Europe is seen in the following statistical table :

STATES UNDER A GOLD STANDARD.

	1871.	1881.
Population . . .	36,000,000	140,000,000
Foreign trade . .	£625,000,000	£1,850,000,000

The annual average production of silver in 1881–85 exceeded that of 1866–70 by 100 per cent in quantity, and nearly 70 per cent in value ; that of gold fell during the same period by nearly 21 per cent. For forty years preceding 1873 there was a difference of only 2⅞ between the highest and lowest annual average price of bar silver in London ; between 1873 and 1887 the difference was 14⅝d. The Gold and Silver Commission was unanimously of opinion that while gold had been much more in demand for currency, in Germany, the United States, and other countries, it seemed doubtful whether there had been, on the whole, any great diminution in the use of silver for currency purposes. It was in the opinion of the Commission impossible to conclude that the circumstances connected with the supply of the two metals sufficiently accounted for the altered conditions in the relative value since 1873. Up to 1878 the agitation for reform in India was directed chiefly to the closing of the Mints to the free coinage of silver and the adoption ultimately of a gold standard. From 1878 to 1893 was the period in which strenuous attempts were made for international bimetallism. This was, too, the heyday of those aimless discussions on bimetallism based on international agreement, a system of currency which was only discarded by the Government of India when the Brussels Conference definitely showed that all hope of international agreement had gone for ever.

In consequence of the steady fall in the gold price of silver and in the Indian Exchange on London since 1871, the Bengal Chamber of Commerce passed a resolution in July 1876 "that Clause 19 of Act XXIII. of 1870, making it obligatory on the Mints in India to receive all silver tendered for coinage, and also Section 11, Clause (*b*), of Act III. of 1871, making it obligatory on the Currency Department to issue notes against silver bullion sent in, be temporarily suspended at the discretion of Government; and that during such suspension, or till further notice, it be not lawful to import coined rupees from any foreign port." The object was not to prohibit coinage altogether, for that would be likely to bring about a collapse of credit, but to place all coinage in the hands of Government, to be exercised at their discretion. A proposition recommending the adoption of a gold standard was put before the meeting, but temporarily withdrawn in deference to the feeling apparent among members present. In August of the same year, the Calcutta Trades' Association supported "a temporary suspension of the compulsory coinage of silver." In

September 1876, Government published a Resolution on the injury to Government and to the public arising from the depression of silver relatively to gold. Restriction could not be put on the coinage of silver, without its ceasing "*ipso facto*, to be the standard of value," which would then be "the monopoly value of the existing stock of rupees, tempered by any additions made to it, either by the Government or in an illicit manner." European countries which had abandoned the silver standard had simultaneously adopted a gold standard. Government held that there was, in spite of the anxieties and inconveniences of the silver standard, no reason to adopt a measure so costly as a gold standard of which all the requisite conditions were then so uncertain. Their conclusions were (1) that the divergence of the values of gold and silver was not necessarily attributable only to a diminution in the value of silver; that there were strong reasons for believing that gold had increased as well as that silver had decreased in value; and that this consideration must have an important bearing on the action of Government in reference to currency difficulties; (2) that, although it was most desirable, in the interests of trade, that the standard of value in India should be the same as the standard of value in the chief countries with which India interchanges commodities, yet trade would not be permanently injured by a fall in the value of the rupee measured in gold, provided only that a fresh stable equilibrium of the precious metals was attained; (3) that there was no sufficient ground for interfering with the standard of value. In forwarding the papers to the Secretary of State, the Government of India urged the advantage of "some concerted action between France and India, to which other countries might perhaps become parties," and suggested that France should be informed that, failing this, the adoption of a gold standard in India might be necessary. The Secretary of State did not reply to this letter.

In various essays written in 1876, 1877, and 1878,[1] Colonel J. T. Smith, formerly Mint Master at Madras, suggested the closing of the Mints to the free coinage of silver; that silver rupees should continue to be legal tender; that Government should receive gold bullion at the rate of Rs. 38/14 per standard ounce, and coin sovereigns (or 10-rupee pieces) and half-sovereigns (or 5-rupee pieces) which should be with rupees legal tender but not demandable; the Secretary of State should undertake to deliver bills at a fixed rate to all comers, and should send to India, for coinage on behalf of Government, any silver in excess of the requirements of the Home Treasury; the imports and circulation of foreign silver coins must be discouraged. The Secretary of State on the suspension of silver coinage should sell bills in excess of his requirements, as there is always a demand for remittances to India greatly in excess of the Home charges to the extent of $1\frac{1}{4}$ millions in three months, or, if he wished to operate more rapidly, he should give notice that the rate would be raised a farthing per rupee for every six weeks up to 2s., and undertake to grant bills at those rates to all applicants; when the rate should have risen to 2s. he should sell bills to all comers in future at that rate. When the rate of 2s. was nearly attained, gold would flow to India for coinage; in

[1] *Silver and the Indian Exchanges; a Remedy for its Depreciation, in Seven Essays*, by Colonel J. T. Smith, F.R.S. (Effingham Wilson, London).

due course the gold coins would be made demandable, and the payments in silver would be restricted. The rupees would not be exported, as outside India they would have only a token value, and, as they would within India retain their full local value, they would not be demonetised, and no other currency need be substituted. Prices not having yet been affected by the fall in the value of silver, there would be no embarrassment from giving the rupees a monopoly value; the change to a gold standard would take place quite insensibly, while there would be no double standard, as either metal would have, on delivery, to be measured by the gold standard. Colonel Smith believed that the abnormal stimulus given to the export trade would be checked; but the currency would be automatically regulated by the constant expansion of commerce. By slightly altering the price of bills or the Mint regulations, silver or gold could be attracted to India from time to time, as required.

It was in 1876 that Mr. A. M. Lindsay first suggested that Ricardo's scheme for a sound currency be adopted in India. Mr. Lindsay, like Mr. Dickson, belonged to the Bank of Bengal, which he joined in 1869, having for two or three years been employed in a mercantile firm in Calcutta. He retired in 1904. The details of this scheme will be examined in Chapter V. where the gold exchange standard is discussed.

In August 1878 the second international monetary Conference took place in Paris. Since 1867 international bimetallism as a remedy for currency maladies had become more popular, and the President of the United States was directed by Congress in February

1878 to invite the Governments of Europe to join in a "Conference to adopt a common ratio between gold and silver for the purpose of establishing internationally the use of bimetallic money, and securing fixity of relative value between those two metals." The Conference, at which twelve countries were represented, excluding Germany, recognised that it was necessary to maintain the monetary functions of silver as of gold, but declined to fetter the discretion of the particular states. The legislature of the United States in the same year (February 1878) made a strenuous effort in the direction of bimetallism by passing the Bland-Allison Act, which required the Government of that country to purchase not less than 24,000,000 and not more than 48,000,000 dollars' worth of silver per annum, which would be equal to a consumption varying from 20,625,000 to 41,250,000 ounces per annum. Under the authority of that Act the United States Government purchased yearly the minimum amount required, but the price of silver continued to fall.

These events abroad were, of course, not without their effect on the price of silver and on Indian exchange. The improvement that took place for a time in the value of silver in 1877 favoured inaction; but after the close of the Paris Conference it was evident, when a fresh fall brought down the rupee to a value only slightly above that of July 1876, that inaction could no longer continue.

[TABLE

GOLD PRICE OF SILVER AND THE AVERAGE RATE OF EXCHANGE

Year ended March 31.	Average price of silver. (Pence per oz.)	Average rate of exchange. (Pence per rupee.)
1874 . . .	$59\frac{1}{4}$	22·351
1875 . . .	$58\frac{5}{16}$	22·221
1876 . . .	$56\frac{7}{8}$	21·645
1877 . . .	$52\frac{3}{4}$	20·491
1878 . . .	$54\frac{13}{16}$	20·790
1879 . . .	$52\frac{9}{16}$	19·761
1880 . . .	$51\frac{1}{4}$	19·961

In a long despatch extending to no less than seventy-five paragraphs dated November 8, 1878, the Government of India pointed out the serious difficulties in which India was placed through the fall in the price of silver, and the heavy loss involved in effecting the necessary remittances to London. They pressed for the establishment of a gold standard in order to protect themselves from the very real and serious dangers of the present system. British or British-Indian gold was to be received in payment for any demands of Government, at rates to be fixed by Government from time to time until exchange settled itself sufficiently to enable the rupee to be fixed permanently in relation to the £ sterling at 2s. Simultaneously, the seigniorage on silver coinage would be raised so that the cost of a rupee to persons importing bullion would be equal to the value given to the rupee in comparison with these gold coins. Under this system silver would be admitted for coinage, at the fixed gold rate, as the demands of trade necessitated, while a certain limited scope would be given for the introduction of gold coin, so far as it was found convenient or profitable. To relieve the Currency

Department of the liability to give notes in exchange for silver bullion, and to provide for the issue of notes for gold, the paper currency law would be altered. This would mean that notes may be discharged in gold or silver. The import of coined silver would be prohibited. Provision was also made for Government to terminate, if necessary, the operation of the proposed law by an executive order and also to prevent hardship to holders of bullion bought or contracted for before the proposed announcement of the raising of the rate of seigniorage and the stopping of the issue of notes in exchange for silver bullion. Government considered it inexpedient to interfere with the British Indian gold coins, although they aimed at the eventual adoption of British gold coins. The accumulation of a certain proportion of British gold coin in the paper currency reserve would, it was believed, be useful in meeting any sudden fall of exchange. They did not advise the immediate recognition of gold coin as legal tender, as this would be a departure from the existing condition of things, and it might tend to stimulate the process of transition from a silver to a gold currency, which it should be the object of Government to check at the outset. The acceptance by Government of gold coins in payment of its demands would secure for the present the needful facilities for the import of gold. At a later period it might be necessary to throw open the Mints for the coinage of sovereigns and half-sovereigns as in Australia. When this took place the old British Indian coinage should cease, as it had no legal status, and its disappearance would not have any effect on the currency. The Secretary of State referred the matter to His Majesty's Treasury, and it was subsequently referred for special consideration to certain officers of the Imperial Government and of the India Office. On this Committee of seven were Welby, Farrer, and Giffen. The Committee unanimously reported against the proposals of the Government of India and the Secretary of State accepted their report. In December 1879 the Secretary of State forwarded the views of the Lords Commissioners of Her Majesty's Treasury, received only in November 1879, and he repeated that Her Majesty's Government could not authorise the proposed change in the currency system of India. The English Treasury considered that the Government of India had not proved that the prospective risks were imminent, and with reference to the Government of India's remark that the responsibility in urging action in the matter is only apparently greater than that involved in doing nothing, it dryly remarked: "Nor can my Lords admit that the responsibility for doing nothing is as great as that for doing something. The present evils are not (immediately, at all events) the results of any Governmental action, while the responsibility of the proposed scheme would rest wholly with the Government. Of one thing my Lords are sure, that it is better to sit still, than to have recourse, under the influence of panic, to crude legislation, the result of which cannot be foretold and the effect of which cannot be measured."

From this time onwards until 1892, the Government of India gave to bimetallism their most careful attention. In reply to the Secretary of State's despatch of December 1879, they forwarded a Memorandum by their Financial Secretary (Mr. Chapman). This Memorandum was written to show that the bimetallic standard was the best system of currency;

that this could be obtained by international agreement between the United States, France, Germany, and India, or even the United States, France, and India; and that the ratio between gold and silver should be that prescribed by the French Monetary Law of 1803, namely, $1:15\frac{1}{2}$. Both the Viceroy (Lord Lytton) and the Finance Member of Council, Sir John Strachey, emphasised the "unquestionable and quite incalculable" financial benefit to India from international bimetallism. On the resignation of Sir John Strachey (who had held the financial portfolio from December 1876 to December 1880) the same policy was pursued by Lord Cromer (then Major Evelyn Baring), Finance Member from December 1880 to August 1883, and also by Sir Auckland Colvin (1883–1887).

The gold price of silver and the average rate of exchange during this period were as follows:

Years ended March 31.	Average price of silver. (Pence per oz.)	Average rate of exchange. (In pence per rupee.)
1880 . . .	$51\frac{1}{4}$	19·961
1881 . . .	$52\frac{1}{4}$	19·956
1882 . . .	$51\frac{11}{16}$	19·895
1883 . . .	$51\frac{5}{8}$	19·525
1884 . . .	$50\frac{9}{16}$	19·536
1885 . . .	$50\frac{5}{8}$	19·308
1886 . . .	$48\frac{5}{8}$	18·254
1887 . . .	$45\frac{3}{8}$	17·441

In June 1881 Government suggested to the Secretary of State, who inquired as to their views in the event of its being proposed that India should become a member of a Union based on principles of bimetallism for a limited number of years, that, as they never knew what their loss or gain in exchange was to be, silver having failed to fulfil the chief function required of a standard of value, they would be ready to keep the Mints open to the free coinage of silver, not merely for ten years, but for the period during which the convention of other nations might remain in force, and "other nations will be assured that in the event of their taking measures the result of which will be the rehabilitation of silver, India will be under an obligation not to take advantage of those measures in order to adopt a single gold standard." From this despatch, as shown in the published correspondence,[1] the Viceroy (Lord Ripon) dissented. His Excellency, while willing to consider any measures to promote the re-establishment of the value of silver, did not favour bimetallism, and no information he considered had been furnished to show what would be the effect in India itself of the introduction of a legal tender gold coinage. In July 1881 the third international monetary Conference was convened by the joint action of the French and American Governments "to examine and adopt, for the purpose of submitting the same to the Governments represented, a plan and a system for the establishment of the use of gold and silver as bimetallic money according to a settled relative value between those metals." Nineteen countries were represented. The proposals of the French and American Governments met with opposition and the Conference adjourned after thirteen sittings, never to be re-convened.

In the early months of 1886, on account of the fall in silver, illustrated in the table above, the Government of India telegraphed and subsequently wrote to the Secretary of State that a determined effort should be made to settle the silver question

[1] House of Commons Paper 449 of 1881.

by an international agreement. The Secretary of State pressed on the English Treasury the importance of making every endeavour towards some settlement by international agreement as to the revival of the free coinage of silver and the comparative stability of the relative value of gold and silver. The Secretary of State sent a copy of the despatch of the Government of India to the Treasury. The Treasury replied on May 31, that the proposition of the Government of India that the establishment of a fixed ratio between gold and silver was not beyond the possibility of human control was "one of the most disputable and disputed points in Economic Science"; that the representatives of Her Majesty's Government at Paris in 1878 had said "that the establishment of a fixed ratio between gold and silver was utterly impracticable," and that on a previous occasion the proposals for a remedy of the evils complained of were pronounced inadmissible. There was little that was new, the Treasury believed, in the present state of the facts to change this view, but that meanwhile the whole subject was understood to be under the consideration of the Royal Commission on the Depression of Trade which was appointed in 1885. As a result of a recommendation of this Commission, another Royal Commission was appointed in 1886 "to inquire into the recent changes in the relative values of the precious metals, shown by the decrease in the gold price of silver." Sir David Barbour was India's representative. The Commission reported in 1888, and the re-establishment of bimetallism now appeared to be impossible except by international agreement, and that agreement, it was now becoming obvious, could never be obtained. As one half of the

Commissioners said with regard to bimetallism, "the change proposed is tremendous; and we cannot but feel that to a great extent it would be a leap in the dark. The public mind certainly is not prepared for it at present. . . . Under all these circumstances, whilst fully impressed with the difficulties of the present situation, and more especially with those which affect the Government of India, we are not prepared to recommend that this country should proceed to negotiate with other nations a treaty embodying a bimetallic arrangement."

While the letter from the Government of India was under the consideration of the English Treasury, the Secretary of State forwarded to India in April 1886 a Memorandum by Sir Richard Strachey in favour of a gold standard, suggesting "measures for the regulation of the coinage of silver in India, in the event of no other means being found to relieve the Government of India from the effects of any further fall in the exchange value of the rupee." The proposal of closing the Mints to the free coinage of silver was similar to that of Colonel Smith in 1876 and of Government in 1878, although it differed from these schemes in some important respects. His first proposal was to suspend that part of the Indian Coinage Act of 1870 which required the Mints to coin whatever silver was brought to them. Secondly, so long as the Mints were closed against the unlimited tender of silver, they should be open to the tender of gold, a stated maximum number of rupees, say 13 (*i.e.* about 18d. to the rupee) "being given in exchange for the gold contained in a sovereign. The gold would not be coined and would merely serve as a medium by which to measure the future cost of the rupee; so much of it would be sold, or exchanged for silver bullion, as would supply the quantity of silver required for the coinage of the requisite number of rupees to be given in exchange at the fixed rate, and the residue would be retained by the Mint, and virtually be a charge of the nature of seigniorage. Power should be given to revoke the suspension and then the free coinage of silver on the original basis would be revived. Consequently the Mint would always be open either to gold or silver." Under this scheme gold would have only been required in small quantities, far less than what found its way at that time to India in the ordinary course of trade. To facilitate remittances from England, the Secretary of State might give "to any one, on payment in London of the proper gold seigniorage, authority for having coined in India without further payment of seigniorage, specified amounts of silver bullion." It was further suggested that to prevent Government coining for itself, "it might be thought desirable to declare that the gold seigniorage received by the Mints should be sold in India, or remitted to England, and further that the Mints should not coin for the Government, so that any extraordinary Government demand for silver money would have to be met by borrowing in India." Sir Richard Strachey's scheme was to give India a gold standard of value, without discontinuing the existing silver coinage or interfering with the general system of currency, and without introducing a gold coinage. His scheme at the same time was also intended to provide for the automatic expansion of the currency to meet trade requirements. In July 1886 Government replied to the Secretary of State and said that they were opposed to a gold standard in place of the silver standard, even though the currency should temporarily, at any rate, continue to be composed of rupees maintained at an artificial value by restrictions on the free coinage of silver. In the opinion of the Government of India, Sir Richard Strachey proposed a currency which could not without loss be changed into uncoined metal. That was the first difficulty which the scheme presented to the Government of India. It was, in the second place, doubtful whether it would be possible to maintain the rupee at the rate of exchange which might be chosen, and it would be a fatal thing to adjust periodically the standard. If the rupee were raised considerably above its intrinsic value, rupees would come out from hoards and Indian States, and as a result there would not likely be a demand for new coinage, and, as bills must be sold by the Secretary of State in London, it may happen, the Government of India thought, that the fixed rate of exchange accepted by Government would not be obtained for such bills. It was also considered that the closing of the Indian Mints to the free coinage of silver would have a very injurious effect on the silver market, and this might itself bring about a wide difference in the accepted ratio between silver and gold as compared with the accepted ratio between the rupee and gold. It was also believed that the true remedy lay in obtaining concerted action with England and in the establishment of an international agreement. With this despatch on Sir Richard Strachey's gold standard proposals were forwarded the opinions of the Presidents of the Chambers of Commerce at Bombay and Calcutta, the Secretary to the Bank of Bengal, the Comptroller-General, and the Financial Secretary to the Government of

India who adversely criticised the scheme. Those in favour of international bimetallism won the day.

Sir David Barbour returned as Financial Member of Council to India in 1888, fresh from his invaluable experience of two years as a Member of the Gold and Silver Commission. He held the financial tiller for the usual period of five years until his retirement from India in 1893. At first glance it may seem puzzling that India should have successfully pressed in 1892 for a gold standard during the regime of so distinguished a bimetallist as Sir David Barbour undoubtedly was. It is difficult to call him the fond parent of the scheme. During the discussion of great public questions the most important truths which relate to such questions are "in the air"; many see them or almost see them, and it is not an easy matter to trace the exact parentage of them. Sir David Barbour had been always a strong opponent to the introduction of a gold standard in India, especially at the rate of exchange of 2s. per rupee, and he believed that bimetallism was the best in the interest of India. He realised at the same time that the great divergence in the relative value of gold and silver was, especially in the later 'eighties, a serious obstacle to his ideal. The injurious effects on India of the United States probably ceasing to purchase silver, as provided under the Sherman Act, combined with the obvious advantages of possessing the same standard of value as that of the United Kingdom, led to a reconsideration of the whole question with a view to a final decision being reached. When events proved to be too strong for the adoption of bimetallism, and when the Gold and Silver Commission approved to all intents and purposes the advantages of a gold standard by not recommending the adoption of bimetallism, Sir David Barbour firmly and frankly turned to the gold standard as a solution for India's currency ills. After the lapse of nearly thirty years we can see the facts in their correct perspective, and the Finance Member's action merits nothing but the very highest praise. All he said at the time was eminently true. It was better to have a late conversion than to remain unregenerate. It is well known, too, that a converted poacher makes a first-rate gamekeeper, and in regard to the gold standard Sir David Barbour was no exception to the rule. He was anything but financially short-sighted, and he possessed in its best development the genius of sound common sense. He is the one who stands out big among the Financial Members of Council during this third period. The reasons for his conversion are set out with vigour in the Financial Statement for 1891–92 and in his *Standard of Value.* Here he showed a readiness to meet criticism, and an anxiety to carry conviction that is not, we are told, always to be found behind an official waistcoat. The position briefly was that in the three years ending March 1890 Indian exchange was on the whole comparatively steady. The following table illustrates the fluctuations during the years 1888–93 :

Year ended March 31.	Average price of silver. (Pence per oz.)	Average rate of exchange. (Pence per rupee.)
1888 . . .	$44\frac{5}{8}$	16·899
1889 . . .	$42\frac{7}{8}$	16·379
1890 . . .	$42\frac{11}{16}$	16·566
1891 . . .	$47\frac{11}{16}$	18·089
1892 . . .	$45\frac{1}{16}$	16·733
1893 . . .	$39\frac{13}{16}$	14·984

In 1890, however, the United States under the Sherman Act decided to purchase annually no less than 54 million ounces in lieu of the value of the amount required to be purchased under the Bland-Allison Act. This led to furious speculation, and by September 1890 silver had soared to the giddy height of 54⅝d. per ounce with the result that the trade between India and England became nothing short of a gamble in exchange. The highest rate obtained by the India Office for bills in the year ending March 31, 1891, was 1s. 8·91d. and the lowest 1s. 5d., the variation being the high figure of 3·91d. As the Financial Statement or Budget speech of that year puts it, the fluctuations in exchange were "so great as to more than counterbalance the effect of the other elements which the trader has to take into consideration. It has even been said, with some truth, that at one time it would have been better for the merchant to dismiss his establishment and confine himself to speculations in silver; his expenses would have been less, and his chances of profit quite as good as in his legitimate business. The serious disturbance to the trade and commerce of India which has resulted from legislation in a foreign country shows that in questions connected with the standard of value no country is independent of the action of other nations."[1] From this date onwards until the closing of the Mints in June 1893, the fate of international bimetallism hung in the balance. The forecast of the Financial Member of Council made in March 1891 in the Legislative Council was gradually becoming true. "I have no right to commit the Government of India to any opinion on the subject, but it is my belief that in case

[1] Financial Statement for 1891–92, p. 15.

of necessity the gold standard could be introduced into this country, and that, if America altogether abandons silver, it would probably be best that India should change her standard."[1] In February 1892, when there was a prospect of an international conference, the Bengal Chamber pointed out that it was impossible to have confidence in the future value of the rupee, and trade was greatly hampered. The Chamber suggested that if international bimetallism were impossible "the Government of India should take steps to have the question of the advisability of introducing a gold standard into India carefully and seriously considered by competent authorities." In the following month the Government of India forwarded this correspondence to the Secretary of State and urged him to support proposals which the United States or any other country might make towards an international settlement of the silver question. It was believed that the contingency of the United States being forced to stop the purchase and coinage of silver, should an international agreement fail, was not to be lightly set aside. The Home Government were asked to take what measures were essential to protect Indian interests. The Secretary of State laid copies before Her Majesty's Government and informed the Government of India in June that, on the invitation of the President of the United States, the British Government had decided to take part in a conference at Brussels "to consider by what means, if any, the use of silver can be increased in the currency system of the nations." In the same month (June 1892) the Government of India addressed the Secretary of State. While learning with satisfaction that an international

[1] Financial Statement for 1891–92, p. 18.

conference for the extended use of silver was to take place and that the importance of Indian interests being properly represented was recognised, they did not overlook the strong opposition to the introduction of the system of double legal tender into Great Britain manifested in certain quarters, and they observed with regret that the conference had been summoned only to consider the question of the more extended use of silver as currency, and not the adoption of an international agreement for the free coinage of gold and silver, and the making of both gold and silver coins legal tender at a definite and uniform ratio. The effects of the difficulties of a fluctuating and falling exchange on Government, and on all those who had to make remittances on a gold basis were briefly but tersely set out. The Government of India recorded their deliberate opinion to be that, if the Brussels Conference should fail, or if no agreement could be come to with the United States, (1) the Indian Mints should be closed to the free coinage of silver; and (2) arrangements should be made for the introduction of a gold standard. "In arriving at this conclusion," they said, "we have been mainly influenced by a consideration of the fact that the abandonment of silver by the United States of America would involve the perpetuation of all the evils from which we have suffered during the last twenty years, and possibly their perpetuation in an aggravated form, unless steps are taken for the establishment in India of a gold standard. We believe that public opinion in India is ripe for the adoption of decisive measures, that the stoppage of the free coinage of silver would be generally approved, and that we might safely count on receiving every reasonable assistance from the Commercial and Banking classes in the attempt to introduce a gold standard." Appended to this despatch was a minute by the Finance Member outlining the proposals. In July the President of the Bengal Chamber of Commerce, the Honourable Mr. J. L. Mackay (now Lord Inchcape) forwarded to the Finance Department a petition from the Indian Currency Association containing 12,000 signatures, of which nearly 5000 were those of Europeans and the remainder of Indians. The petition recited the serious disadvantages of a depreciating rupee currency and requested that everything should be done to ensure that the Brussels Conference (then about to meet) should result in a definite agreement. "If, however, the Conference should fail, like its predecessors, to arrive at a satisfactory solution of the questions referred to it, your petitioners pray that the Government of India may be fully empowered to take such measures as may to it seem fit for the adoption of the only remaining effectual remedy, viz. a gold standard." The Association further requested that as the Conference like its predecessors would probably come to nothing and silver would fall still lower, the Government of India may be given the power so that it could be exercised without delay after the termination of the Conference. This and similar memorials from various parts of India were forwarded to the India Office. By July 1892 the fate of bimetallism seemed almost sealed. The price of silver had fallen as low as $39\frac{1}{16}$d. notwithstanding that the United States Government were purchasing from 35 to 43 per cent of the world's production under the Sherman Act, and India all the while was increasing her imports of the white metal. A large increase in the world's production was also taking place, as will be seen from the following table :

Year ending March 31.	Net imports of silver into India.	World's silver production.	Percentage of col. 2 to col. 3.	Average price of silver per ounce in pence.	Average rate of exchange (in pence per rupee).
1.	2.	3.	4.	5.	6.
Quinquennial average year ending 1880 . . .	24,723	68,093	34	53	20·530
Do. 1885 . .	21,310	82,206	24	51	19·644
Do. 1890 . .	33,924	102,015	31	44	17·108
Year 1891 . .	51,259	126,095	37	47	18·089
Do. 1892 . .	32,348	137,170	22	45	16·733
Do. 1893 . .	45,524	153,152	27	39	14·984

NOTE.—(1) The quantities in column 2 for the years 1873–74 to 1886–87 are deduced from the declared values of the trade for these years.
(2) Percentages in column 4 have been worked out on the basis of fine ounces.

In October 1892, before the International Conference met, the Secretary of State referred the proposals of the Government of India to a Committee of which Lord Herschell, the Lord Chancellor, was Chairman. The terms of reference were to consider the proposals of the Government of India and to advise whether it was expedient that these should be carried into effect with or without modification. The Members were, in addition to the Chairman (Lord Herschell), Sir Thomas (afterwards Lord) Farrer, for many years the distinguished Secretary to the Board of Trade, Lord Welby, a lion of the Treasury, and an official of very exceptional experience, Lord Kilbracken (Sir Arthur Godley, the senior permanent official of the India Office), Lieutenant-General Sir Richard Strachey (the author of the gold standard proposals of 1886), Mr. Leonard Courtney, well known as Chairman of

Committee of the House of Commons and then a recent convert to bimetallism, and Mr. B. W. Currie. In January 1893 the Secretary of State asked the Governor-General in Council briefly to specify in greater detail the action proposed in order to establish the gold standard after the Mints were closed. A draft bill closing the Mints to the free coinage of silver was thereupon forwarded to London, and, as regards the proposal of opening the Mints to the free coinage of gold, it was proposed to take power to issue a notification declaring that English gold coins should be legal tender in India at a rate of not less than $13\frac{1}{3}$ rupees for one sovereign (*i.e.* 1s. 6d. per rupee). By this means exchange would be prevented from rising above 1s. 6d. per rupee. As some had expressed the apprehension of a sudden and large rise in exchange this would allay all fears on this score. It was also suggested that (1) an interval of time (which could not be determined beforehand) should elapse between the closing of the Mints and the coining of gold in India; and (2) power to admit sovereigns as legal tender might be an *ad interim* measure, not to be put into force except in case of necessity. Memorials to the Secretary of State continued to pour in. In a despatch dated May 3, 1893, no less than 235 memorials were forwarded. Ten days later the embarrassing effect of the recent fluctuations of exchange was again pointed out by the Indian Currency Association to the Government of India and communicated to the Secretary of State. The Herschell Committee, however, shortly after submitted its report which is dated May 31, 1893. The Secretary of State sent a copy of the draft report on May 26, an official copy on June 2, and a telegraphic summary on

June 7. No time, therefore, was lost. The Government of India replied by telegram on June 15, and five days later it was decided to close the Mints to the free coinage of silver and to make arrangements for the adoption of a gold standard, subject to the modifications made by the Herschell Committee and referred to in the following chapter.

CHAPTER V

INDIAN CURRENCY IN THE NINETEENTH CENTURY
(*continued*)

V

The Fourth Period (1893–1900)

(1) *The Gold Standard*

The new ship was launched with conspicuous skill on June 26, 1893, by Sir David Barbour, who continued in office until five months later, retiring in November of that year. He was ably assisted by his colleagues in the Executive Council, at the head of which was Lord Lansdowne, and also by Lord Inchcape, the President of the Indian Currency Association. Sir David Barbour was succeeded by Sir James Westland, who for over five troublous years was the Chancellor of the Exchequer of the Government of India. Sir James Westland, the eldest son of Mr. James Westland, manager of the Town and County Bank, Aberdeen, and brother of Mr. William Westland, Deputy Secretary of the Bank of Bengal, passed, after his education in Aberdeen, first into Woolwich in January 1861. He decided not to follow a military career, and passed first into the Indian Civil Service in July of that year. Gifted with rare mathematical talent, he did great work, especially as a codifier of pension and leave rules, of general financial procedure, and as a converter of the public debt, which saved annually nearly fifty lakhs of rupees to the revenues of the State. As an expert in currency he did not rank with James Wilson or Barbour, but he had, what was the most essential qualification of a Financial Member of Council in this period, a large amount of caution, a distinctively national trait. He was not perturbed by those financial storms which sometimes arise in the clearest skies. His infinite patience, unruffled serenity, and a craving for more light in the working of the new standard were great assets, especially when he was confronted with the serious and unexpected difficulties of the next few years.

Sir David Barbour realised that practical statesmanship required the acceptance of the inevitable, and making the most of the present and future. He saw that it was useless crying over spilt milk, and wasting time in vain regrets for what might have been had international bimetallism won the battle of the Standard. Government were of opinion that it was impossible to stand aside and leave things to take care of themselves. There was the increased burden measured in rupees of the external liabilities of India, payable, of course, in gold; there were the effects of uncertainty that was introduced by the great fluctuations not only in Government finance but also in trade finance. The Herschell Report, a remarkable State document written in a clear scholarly style, set forth with lucidity the considerations which compelled this leap in the dark. The fall in exchange proved a serious financial difficulty to

Government. In 1892–93, with an average rate of exchange of 14·985d., it required Rs. 26,48 lakhs to remit 16½ million sterling in order to discharge gold obligations in England, that being Rs. 8,73 lakhs more than would have been required had exchange stood at the same point as in 1873. The whole of the 8,73 lakhs could not, the report points out, be regarded as a loss to Government on account of the fall in exchange. It was certain, however, that India had actually to remit in the year 1892–93 upwards of Rs. 8,70 lakhs more than if exchange had been at its former point. In the second place, the United States Government was absorbing about 54 million ounces out of a world's production of 153 million ounces, and "it cannot be regarded, then, as otherwise than within the reasonable bounds of possibility, that a repeal of the Sherman Act might lead to a fall in the price of silver of even 6d. per ounce or more, and that there might be no substantial reaction from the level thus reached. Such a fall would, it may be said with practical certainty, reduce the exchange to about 1s. per rupee, and involve the necessity of raising at least Rs. 6,61 lakhs more than would be required by the Government of India to effect, even at the rate of exchange of 1s. 3d. per rupee, a remittance of the amount drawn last year, namely, £16,530,000." The Committee fully recognised the currency evils which India had suffered in the period 1874–93, and the gloomy prospects of the future if the silver standard were retained. On these grounds, therefore, the Committee recommended the closing of the Mints and the adoption of a gold standard as proposed by the Government of India, subject to the modification that the announcement of the closing of the Mints to the free coinage of silver should be accompanied by a notice to the effect that although closed to the public the Mints would be used by Government for the coinage of rupees in exchange for gold at a ratio to be fixed, say 1s. 4d. per rupee, and gold would be received at Government treasuries in satisfaction of public dues at the same ratio. Thus the only modification in the Government of India's proposals was the change from 1s. 6d. to 1s. 4d. as the limit to be placed on the gold value of the rupee. The rate of 1s. 4d. was convenient in two ways. It was in the neighbourhood of the average exchange rate of the previous two and a half years. It was a fair average rate, more easily attainable than 1s. 6d., especially in view of the fact that the Committee itself was somewhat uncertain as to the immediate effect on exchange of the closing of the Mints. Secondly, the 1s. 4d. rate assimilated the Indian with the English system, an important factor, as not only was the United Kingdom her best customer, but London was also the central clearing-house of the world. At 16 pence a rupee a sovereign would be the equivalent of fifteen rupees, the rate at which the gold mohur, which was demonetised in 1835, exchanged for rupees. The rupee, moreover, contains sixteen annas, and one penny was thus the equivalent of one anna.

The necessary legislation to close the Mints was passed at a meeting of the Legislative Council at Simla on June 26, 1893. Act VIII. of 1893 provided for the closing of the Indian Mints to the free coinage of silver, Government retaining power to coin silver on their own account. Three notifications were issued on the same date, one that gold coins and gold bullion would be received at the Mints in exchange for rupees at the rate of 7·53344 grains troy of fine gold for one rupee (*i.e.* 1s. 4d. per rupee); the second that sovereigns and half-sovereigns would be received in payment of sums due to Government at the equivalent of fifteen rupees and of seven rupees eight annas respectively; the third provision for the issue of currency notes in exchange for British coin or gold bullion at the rate of 7·53344 grains troy of fine gold per rupee, sovereigns and half-sovereigns of current weight being taken at the rate of fifteen rupees and of seven rupees and eight annas respectively. It will be noted that the making of sovereigns and half-sovereigns legal tender and the fixing of a permanent rate of exchange between gold and the rupee were to be provided for by future legislation. No action was taken with regard to Lord Farrer and Lord Welby's joint recommendation that "the Government of India should, in view of the ultimate adoption of the whole of their plan, be prepared to secure the convertibility of their token silver currency, and should, with that object, accumulate a sufficient reserve of gold."

As soon as the Mints were closed exchange leaped up from a rate about 14½d. to 16d. It was, however, immediately apparent that the advance was purely speculative and could not be maintained. The rupee currency, owing to the large speculative imports of silver and the correspondingly large issues from the Mints of rupees immediately before and after the closure of the Mints, was sufficient to meet the requirements of the next few years. The imports of silver were even larger than the record imports of 1890–1891. In the eight months July 1893 to February 1894 the imports of silver were 41 million standard ounces, as against 28 million ounces, being the average of the corresponding eight months of the previous five years. Nobody dreamt that in liquidating the favourable balance of trade silver would be imported in this way, and least of all the Secretary of State, who, at the end of a cable to the Viceroy dated July 4, said, "Though silver will no longer compete with bills on India, gold may compete."

TABLE OF IMPORTS AND PRICE OF SILVER AND THE AVERAGE RATE OF EXCHANGE

Year ending March 31.	Net imports of silver into India.	Average price of silver per ounce in pence.*	Average rate of exchange (in pence per rupee).
1.	2.	3.	4.
	Oz. (000)		
1893 . . .	45,524	$39\frac{13}{16}$	14·985
1894 . . .	54,329	$35\frac{5}{8}$	14·546
1895 . . .	27,040	$28\frac{15}{16}$	13·100
1896 . . .	27,018	$29\frac{7}{8}$	13·638
1897 . . .	25,929	$30\frac{3}{4}$	14·450
1898 . . .	44,285	$27\frac{9}{16}$	15·406
1899 . . .	23,165	$26\frac{15}{16}$	15·978
1900 . . .	18,646	$27\frac{7}{16}$	16·067

* The figures in this column relate to the calendar year

These heavy imports of silver took the place of Council drafts in this period and were, of course, used in the main for jewellery and similar purposes, as the Mints were now closed to the free coinage of silver. The value of the rupee (which weighs a tola) was after the closing of the Mints worth more than a tola of uncoined silver, and the man in the street was unable to see that it was not necessarily a profitable transaction to buy a tola of silver for 15 annas in what was practically a falling market. This occurred at a time when the Secretary of State unfortunately suspended his Council sales, and this stimulated the purchase of silver. The closing of the Mints was launched under two inauspicious events—the unfortunate curtailment in the sale of Council drafts and the large fall in the gold price of silver.

In some quarters the closing of the Mints to the unlimited coinage of silver was thought to be sufficient to raise the exchange immediately to 1s. 4d. per rupee and to "peg" it there. The Herschell Committee and the Financial Member of Council both emphasised the uncertainty as to the immediate effect of the closing of the Mints. "It may be," said Sir David Barbour when introducing the Bill, "that the gold standard can be made effective from the first, although it will not be secured until there is a considerable amount of gold in our treasuries and banks. Or it may be that the making of the gold standard effective will involve a long and arduous struggle, and necessitate heavy sacrifices." There were protests to Government when the Secretary of State sold his bills below 16d., and the Government of India telegraphed on June 30, 1893, that apprehension and uneasiness had been caused in commercial circles by the sales at a lower rate than 1s. 4d. the rupee. In that telegram it was suggested that if it was inexpedient to fix a minimum, a moderate amount only should be offered weekly, extra allotments being refused altogether or granted only on such terms as would make their cost equivalent to what would be incurred by exporting gold to be exchanged for rupees at the Indian Mints. The Secretary of State rightly held it to be inexpedient to fix a minimum rate for exchange, and proposed reducing drawings while still meeting Home Treasury requirements. In August the Bombay Chamber of

Commerce deprecated the sale of bills at 1s. 3¼d. per rupee as " the sale has shaken confidence in the power of Government to effect the object of recent currency legislation, and, in the opinion of the Committee, has been made at an inopportune moment, before the Indian export season has opened, and therefore before Government's policy has had a fair trial." The President of the Indian Currency Association, the secretary of the Bank of Bengal, and others brought to the notice of Government the feeling in commercial circles. Government informed the Secretary of State, and on August 25 pointed out that the existing uncertainty caused the mercantile community heavy loss, hampered trade, and thereby reduced the demand for Council drafts. The Secretary of State did curtail his sales. His sales from July to December 1893 were only £746,000, as compared with £6,335,000 in the corresponding period of the previous three years. On January 20, 1894 a forced value for Councils was abandoned, and on January 31 a considerable allotment of drafts took place at 14·375d. The lesson of this was that it is impossible to force exchange to a level that is not justified by market conditions. The Secretary of State should, in other words, sell freely when the demand is great and *vice versa*. These small sales were accompanied by considerable uneasiness, especially in the export trade, a large accumulation of treasury balances—the treasury balances on January 31, 1894 were R. 23,80 lakhs, or 81 per cent higher than the average of the five previous years,—and also by a considerable import of silver, as we have seen above. The following table shows the monthly rate of exchange and the Secretary of State's drawings from June 1893 to April 1894:

	Secretary of State's drawings £(000).	Rate of exchange. (Pence per rupee.)
June 1893	2,478	15·039
July 1893	25	15·974
August 1893 . . .	78	15·243
September 1893 . . .	7	15·350
October 1893 . . .	5	15·334
November 1893 . . .	617	15·251
December 1893 . . .	14	15·242
January 1894 . . .	98	14·408
February 1894 . . .	1,023	13·787
March 1894 . . .	1,915	13·870
April 1894	1,368	13·626

The tumble in the price of silver at the closing of the Mints was the second of the two inauspicious events referred to above. The fall in silver was no less than 8¼d. in June 1893. On June 24, when rumours of the closing of the Mints took place, silver was in London 37½d., on the 26th, 36d., and on the last day of that month it fell to 30½d. In the United States there was a considerable opinion against the Sherman Act, the repeal of which had always been anticipated by the Government of India. A special session of Congress took place on August 7, and the purchase clause of that Act was repealed after lengthy discussion on November 1, 1893. This was anticipated by the Government of India and it was one of the most important factors that led to the closing of the Indian Mints. In the month in which the Mints were closed there was widespread panic in the United States, and there was the same apprehension felt there as here. We asked ourselves what would happen to silver if the Sherman Act was suspended and no less than 37 per cent of the world's annual production were dumped on the market, and the United States asked themselves what would happen if India ceased importing silver as she had been doing, having imported 33 per cent of the world's production during the years the Sherman Act was in force.

(2) *The Stimulus of a Falling Exchange*

During this period there was a belief that the fall in exchange stimulated exports from India and was beneficial to the country as a whole. Exporters were asked to give evidence on this, and asserted from practical experience that they obtained an increasing number of rupees against given quantities of their exports. No one disputes that if an exporter sells goods in a foreign market and the price be taken as fixed, a fall in the value of his own currency as compared with that of the country in which he sells, increases his currency receipts by the equivalent of the depreciation in his own currency relatively to that of the foreign country, and may, often does, increase his profits even in a larger proportion. There is nothing new about that. It is simply a question of common sense and ordinary arithmetic. But the theory of a stimulus to trade by a falling exchange during this period was widely held in India, and the Japanese Commission of 1896 and the Mexican Commission of 1903 on monetary matters both held that a falling exchange stimulates exports in silver standard countries. There was in this period a danger of the theory passing into a "catchword," and becoming one of what Bacon called the "idols of the market-place." It is clear that muddling was at the top of its form in regard to it. Professor Kemmerer in his interesting book on *Modern Currency Reforms* quoted the report of the British Consul-General at Hakodate, Japan, which shows that a fall of exchange is not necessarily a good thing for trade between countries. Like many other stimulants it is irregular, and in this case checked imports. In 1892 Hakodate imported 1500 tons of water-pipes at 4 guineas a ton or (at the rate of exchange) 28 silver dollars. In 1894 Hakodate again advertised for 1500 tons to complete her water-supply system. The same firm tendered at £4 per ton, but exchange had fallen so much that it required 40 dollars to buy four sovereigns. In these circumstances Hakodate refused all tenders, erected her own works, and when last heard from was exporting pipes to China and to India. Professor Kemmerer also points out, in dealing with the Mexican Currency Reform, 1903–8, that the argument in favour of a continuance of the silver standard in Mexico because of the encouragement to the export trade from a decline in the gold value of silver was weaker for Mexico than for most countries, because approximately half of Mexico's exports consisted of depreciating silver, and secondly because Mexico was largely dependent on foreign countries for supplies of mining machinery, chemicals such as quicksilver, and railway materials, whose peso cost was greatly increased by the decline in silver. The untenable delusion of a falling exchange being beneficial to trade may be partially exposed by asking the question as to what are the ultimate limits of a beneficial fall. The Fowler Committee failed to discover at what precise point, if at all, the advocates of this view would say that the alleged advantage ceased. The Financial Member of Council in introducing the Financial Statement for 1891–92 said: "Things are not always as they seem to be, and though we can all see the sun rise in the east and set in the west, we do not in the present day believe that the sun revolves round the earth once in every period of twenty-four hours. Trade between different countries is essentially a barter of goods for goods, and its extent and nature are determined, in the long run, not by the standard of value in use in either country, but by the comparative cost of production of commodities in these countries. . . . That trade between different countries ebbs and flows in accordance with the fluctuations in exchange is a fact which falls within our daily experience, and is wholly in accordance with theory, but I have yet to learn that the total quantity of water discharged into the sea by a river is dependent on the tides at its mouth, and that the greater the strength of the tides the larger the total average volume of discharge. The current may run into greater velocity when the tide is falling, but the additional volume of water poured into the sea is only the same as the volume which was forced back when the tide flowed the other way." In short, it is the comparative cost in production that affects the trade between countries, *i.e.* the relative cost of producing commodities in one country as compared with the relative cost of producing the same commodities in another country. This is often forgotten, especially at the present time when the possibilities of a further rise in exchange are discussed. Our jute and tea industries depend not on the relative value of the rupee to the sovereign, but on the fact that our customers cannot produce jute and tea as we can, and they require these commodities, and are willing to give piece-goods and iron and steel in exchange for them. Any change in the relative value of the rupee to the sovereign does not in the long run weaken their demand or reduce the amount of goods which they are prepared to give in exchange, and, therefore, it does not affect the production of these articles in India. By a falling exchange in this period India did not, all things considered, gain in its international trade, since the extra price received for its exports was balanced by the extra price paid for its imports.[1]

As will be seen from the following summary table, silver prices of exports increased in greater proportion than their gold prices, while the gold price of

INDIAN PRICES, 1890–1900

Index numbers (average of the figures for the five years ending 1894 being taken as 100).

	1890.	1891.	1892.	1893.	1894.	1895.	1896.*	1897.*	1898.	1899.	1900.*
Exports—											
Silver prices	97	96	101	104	102	103	109	115	95	93	115
Gold prices	113	104	98	98	86	91	102	114	98	96	119
Imports—											
Silver prices	105	97	97	103	97	101	109	100	93	101	111
Gold prices †	123	105	94	97	82	89	102	99	96	105	114
General average—											
Silver prices	99	97	101	104	101	103	108	111	95	95	114
Gold prices.	116	105	98	98	85	91	101	110	98	99	118
General average of wages in India ‡ .	98	99	100	101	102	105	108	110	112	115	119
Rate of exchange § .	117	108	97	94	84	88	93	99	103	104	103
Price of silver in London .	121	114	101	90	73	76	78	70	68	70	72

* Exceptional years on account of famine following a deficient monsoon.

† All commodities, 39 articles (Department of Statistics Index Number).

‡ Report on the enquiry into the Rise of Prices in India published by the Superintendent, Government Printing, Calcutta.

§ Finance and Revenue Accounts (Government of India).

[1] (1) Herschell Committee Report, para. 27 (C. 7060, 1893). (2) Dr. Alfred Marshall's evidence before the Fowler Committee (see Q. 11,792, 1899). (3) Barbour, *The Standard of Value*, chapter xv.

the rupee declined. Wages and other expenses of production rose steadily, as did silver prices of exports. Exporters and producers, therefore, received on the whole increasing rupee prices.

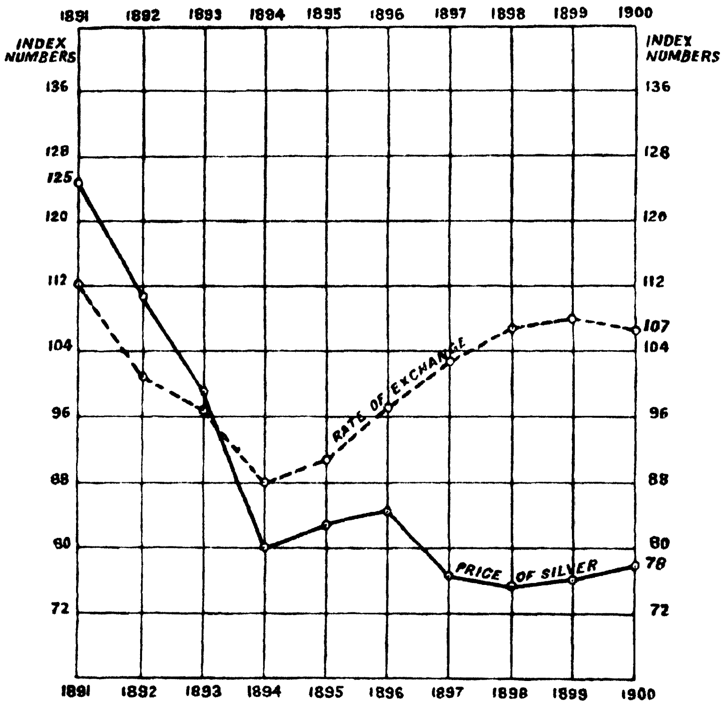
It is a steady exchange that a country requires and not a fluctuating exchange which leads, especially in regard to future contracts, to much uncertainty, gambling, and depression of longer or shorter duration. During the period 1874 to 1893, for example, when the question of the exchange value of the rupee was the one financial question dominating all others in India, the uncertainty as to the course of exchange from day to day, week to week, and month to month, made it impossible to put through a business transaction without either accepting a peculiar risk or insuring against it. From the point of view of the Government of India an uncertain fluctuation in exchange had two serious disadvantages. It led to additional taxation to meet an uncertain fall in exchange. It also made the framing of a budget impossible, if accuracy in forecasting is to be taken as the criterion of budget-making. At the best of times this is never an easy task in India, for we have to contend with the unknown factor of the year's monsoon.

(3) *The Rise in Rupee Exchange*

Exchange depends on trade conditions, on the relation between our exports and our imports. That is a platitude. It must not, however, be forgotten that the volume of currency as influencing rupee prices is an important factor. The relation, on the one hand, between the volume of the currency offering in the markets, and, on the other hand, the work that the currency has to do, is very important, not only in regard to rupee prices in the country itself, but as regards exchange through the influence of rupee prices on exchange. The volume of currency, in other words, as influencing rupee prices was an important factor in exchange during this period. The question arises then in reviewing the currency policy of the period whether there was a comparative decrease in the volume of the currency as compared with the number of transactions. Was there not merely an actual decrease but a relative decrease as compared with the beginning of this period ? Did the law of supply and demand apply to currency in this period ? Did the monetary demand increase more rapidly than the supply ? The Government of India in their despatch dated March 3, 1898, which led to the appointment of the Fowler Committee, said that their experience since 1893 had undoubtedly proved that a contraction in the volume of the rupee currency, with reference to the demands of trade, had the direct effect of raising its exchangeable value in relation to gold.

After the closing of the Mints, exchange advanced from a rate of about 14½d. to 16d., a speculative rate, as we have seen, that could not be maintained. The exchange value was much less than 16d. and the rate fell. In 1894 it continued to fall, but in 1895 steadily recovered until it reached 16d. in 1898. The chart below brings out the movement in exchange during this period.

Diagram of the course of Exchange on Bills drawn by the Secretary of State for India and the Price of Silver in London in each year from 1891 to 1900.



The data of the chart are :-

Price of Silver on 26 June 1893 . . . . . 36 d taken as 100.

Rate of Exchange on the 3rd week of June 1893 14·906 d taken as 100.

The chart is based on the following data :

	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Average rate of exchange .	14·546	13 100	13 638	14·450	15 406	15·978	16·067	15·973
Price of silver (pence per standard oz.)	$35\frac{5}{8}$	$28\frac{15}{16}$	$27\frac{7}{8}$	$30\frac{3}{4}$	$27\frac{9}{16}$	$26\frac{15}{16}$	$27\frac{7}{16}$	$28\frac{1}{4}$

Immediately after June 1893 there was a considerable absorption of rupees, and, as Sir Clinton

Dawkins later pointed out in 1900, it is not rash to assume that at the closing of the Mints the silver currency was redundant. It is an important question which has a close bearing on the rise of exchange in this period. A predecessor of ours, Mr. J. E. O'Conor, Director-General of Statistics, pointed out in one of the Annual Reviews of Trade that if the fall in the imports of silver after the closing of the Mints were taken as not very much in excess of ordinary requirements, then the inference might be drawn that more than half of the yearly additions to the currency before the closing of the Mints went into the melting-pot for conversion into ornaments or into the earth as hoards. The net imports (imports *minus* exports) of silver tend to confirm this. These were in the year ending March 31 :

1891 . .	51,000,000 ounces.	1896 . .	27,000,000 ounces.
1892 . .	32,000,000 „	1897 . .	26,000,000 „
1893 . .	46,000,000 „	1898 . .	44,000,000 „
1894 . .	54,000,000 „	1899 . .	23,000,000 „
1895 . .	27,000,000 „	1900 . .	19,000,000 „

These figures represent net imports on Government as well as on private account. The absorption of rupees decreased when the value of the rupee in exchange was above its content value as is illustrated by the following data :

(In crores of tolas.)*

Year ended March 31.	Absorption of rupees.	Bullion.	Total.
1894 . . .	10	11	21
1895 . . .	5	8	13
1896 . . .	2	8	10
1897 . . .	6	8	14
1898 . . .	−1	13	12
1899 . . .	3	8	11
1900 . . .	1	5	6†

* A tola, the weight of a rupee, 180 grains, is the equivalent of ⅜ oz. The details of this table are given on page 142 of the Prices Enquiry Committee's Report, volume i., Superintendent, Government Printing, India, Calcutta. † Famine year.

Government added, it will be remembered, to the currency by taking over from the banks a considerable stock of silver held or in transit at the time of the closing of the Mints which, when coined, amounted to nearly two crores of rupees. In 1896 the maximum of the invested portion of the Paper Currency Reserve was reached. While there were additions to the currency there was less coinage than hitherto, especially between 1895 and 1899. From the figures of coinage it may be argued that even allowing for the reappearance of rupees from hoards after 1893 (which did not occur except in 1898) there would appear to be a distinct contraction in the circulation. The coinage of rupees was:

COINAGE OF RUPEES *

(In lakhs of rupees.)

Year ended March 31.	New coinage.	Re-coinage.	Net coinage.	Coinage per capita.		
				Rs.	A.	P.
Decennial average, 1876–1885 .	6,49	25	6,24	0	4	1
Do. 1886–1895.	7,79	26	7,53	0	4	4
Do. 1892 . .	5,55	19	5,36	0	3	1
Do. 1893 . .	12,69	18	12,51	0	7	1
Do. 1894 . .	4,81	20	4,61	0	2	8
Do. 1895 . .	9	6	3	0	0	1
Do. 1896 . .	29	29	..	0	0	2
Do. 1897 . .	57	64	– 7	0	0	4
Do. 1898 . .	99	61	38	0	0	7
Do. 1899 . .	70	33	37	0	0	5
Do. 1900 . .	223	91	132	0	1	3

* See Table No. 14. † Includes half rupees and small silver coins.

It is sometimes said in view of this, that as soon as circumstances called for an increased demand for rupees, the net additions being curtailed, the exchange value of the rupee was bound to rise. The data are insufficient to show whether there was in reality a relative contraction of the currency. We have, therefore, to turn to further statistics.

In the first place we may turn to prices and also to discount rates. We shall then examine the active rupee circulation of each year and the growth of business in order to see to what extent this contraction, if at all, occurred. Apart from a slight rise in 1892–93 prices were steady from 1890 to 1895. In 1896 and 1897 the general price level rose, due entirely to the rise in the prices of food grains and oil-seeds, the result of the failure of the monsoon in several parts of India. In the two succeeding years prices fell greatly on the return of favourable agricultural conditions. In 1899, the year before the famine of 1900, prices were actually between 6 per cent (weighted average) and 9 per cent (unweighted average) below the level of 1893. The index numbers given elsewhere may be briefly summarised:

INDEX NUMBERS OF WHOLESALE (RUPEE) PRICES
(Average of 1890–94 = 100.)

	Unweighted.	Weighted.
1890 . . .	99	94
1891 . . .	97	97
1892 . . .	101	106
1893 . . .	104	104
1894 . . .	101	98
1895 . . .	103	97
1896 . . .	108	106
1897 . . .	111	123
1898 . . .	95	101
1899 . . .	95	98
1900 . . .	114	115

The period of this rise in exchange belongs to the first of the two periods into which the history of the Indian price levels divided itself, *i.e.* the period up to 1904 when internal conditions were the principal factors determining prices. In the second period, from 1905 onwards, Indian price levels enter on a new phase, the causes determining the rise being chiefly world-wide. Owing to the intense famines during 1896, 1897, and 1899 the general movement in prices is so upset as not to warrant definite conclusions regarding the contraction of the currency. Discount rates show a noticeable increase between 1895 and 1899. These rates are the Presidency Bank Rates, *i.e.* the rates charged for demand loans, the rates charged day by day for loans advanced on such security as Government Paper. These rates (which seldom differ among the three Presidency Banks by more than one per cent) afford an index for measuring the supply and demand of money. The published bank rate in India is, as explained in a later portion of this book, not the same as the English Bank rate which is in normal times the official minimum rate at which the Bank of England will discount bills. For loans and advances the Bank of England charges half per cent more than for discounting bills. Sir James Meston in his evidence before the Chamberlain Commission pointed out "that the test of the bank rate ought not to be pressed to the same extent that it is in England, because it means very often a very different thing. A high bank rate may simply be a device of the Presidency Bank in a given area to prevent certain forms of trading, to check over-trading, and to check speculation. We often see that, when the money market in reality is not tight and when you can get local loans, shroffs' loans, as they are commonly called, at rates very much below the official bank rate."[1] The bank rates are influenced largely

[1] Minutes of evidence, Chamberlain Commission on Indian Finance and Currency, volume ii. (Cd. 7237, 1914, Q. 9220).

by the demand for money required to finance produce for export to foreign markets and for raw materials for the major Indian industries. Shroffs' money, on the other hand, finances largely the moving and the storing of crops required for local consumption and export. Loans taken from the banks go to a considerable extent to redeem advances originally made by the shroffs, and the shroffs' rates may be moderately easy when bank money is tight. The bank rates in this period were:

AVERAGE BANK RATES OF THE PRESIDENCY BANKS FROM 1893 TO 1900

	Bank of Bengal.	Bank of Bombay.	Bank of Madras.
1893 . . .	4·88	4·90	5·27
1894 . . .	5·39	5·50	5·01
1895 . . .	4·33	3·95	4·26
1896 . . .	5·69	5·47	5·64
1897 . . .	7·92	7·87	7·98
1898 . . .	8·06	8·29	7·80
1899 . . .	5·91	5·88	6·05
1900 . . .	5·34	5·34	5·87

As stringency on the loan market may be due to factors other than a scarcity of currency, we cannot say more than that the high averages of 1897 and 1898 may be partially due to the growing scarcity of money. To those who crave hungrily for monetary statistics, the evidence of a relative contraction about 1898 in the currency seems a positive fact. To others it appears less convincing, and even in some respects of little importance, and, as Prince Hal would say, " a triflesome ten-penny matter." We have, however, not yet drained to the dregs the joyous vintage of statistics relating to this question. We have still the data on the growth of business and the active rupee circulation to examine.

The leading data in the table, which shows business conditions since 1890, have been collated on external and internal trade, railway traffic, payments of money orders, the capital of joint stock companies, receipts and expenditure of the Government of India, the production of the chief staples—rice, wheat, jute, cotton, tea, coal, iron ore, petroleum, and both jute and cotton manufactures. The items, twenty-two in number, have been selected in such a way that we can gauge with a fair degree of accuracy business activity and the growth of important branches of industry. The quinquennial period 1890 to 1894 has been taken generally as the base or standard period. According to these suggestive statistics business increased in the period 1893 to 1900 by 39 per cent. Up to 1896 the expansion of business was not more than 2 per cent. In 1897 and 1898 the increases were large. In these years, the period of stringency, we see that business had expanded by about 22 per cent as compared with 1893, the year of the closing of the Mints.

THE GROWTH OF BUSINESS

	1890–94 = 100.	1893 = 100.
1893 . . .	105	100
1894 . . .	110	105
1895 . . .	109	104
1896 . . .	107	102
1897 . . .	124	118
1898 . . .	128	122
1899 . . .	131	125
1900 . . .	146	139

The method of calculating the active rupee circulation is sometimes little understood, and therefore easily misunderstood. From the coinage statistics alone it is not possible to determine the amount of rupees in active circulation in India. A large number, especially prior to the closing of the Mints, was melted down for ornaments and similar uses. Government have from time to time withdrawn from circulation old issues and recoined these. In 1878, for example, all coins issued prior to 1835 were ordered to be withdrawn; in 1896 the mintage of 1835; and in 1901 the mintage of 1840 (*i.e.* rupees coined between 1840 and 1862, all of which bore the date 1840). A small percentage of 1835 and 1840 issues is still received into the treasuries, and these issues are then recoined. A certain amount of the coinage is melted down, hoarded, lost, or exported. From 1835 to March 31, 1919, the total coinage amounts to over 605 crores, but for the reasons just stated this could not be taken as the active circulation. The statistics, nevertheless, form one of the two sets of data on which the circulation is based.

Since 1875 an examination of the composition of the rupee circulation is made annually in May. In all treasuries and currency offices, bags of ordinary size, containing R. 1000 or R. 2000, received in payment of revenue, etc. (*i.e.* in current circulation, in order to represent as accurately as possible the description of coins in current use), are examined in detail, and returns of the number of rupees of each issue are forwarded to the Accountants-General who furnish the provincial returns to the Controller of Currency. The percentage results of the census are published in the Report of the Controller of Currency. The amount examined in each treasury and currency office is R. 10,000. It would be well in this connection if the attention of the Accountants-General could be drawn each year to the necessity of carefully scrutinising the returns, as occasionally the treasury census is not accurately done. The returns of some provinces in one year have been known to resemble those of the previous year in too close a degree. Sometimes a treasury may even report the existence of coins of a year in which there was little or no mintage, although this is far less frequent a fault than formerly. In 1881 the coinage, for example, was only 56 lakhs, and it appears that the percentages shown in the rupee census are somewhat high for that year, and higher than those of the 1898 coinage, which was 75 lakhs. This gives rise to some suspicion of inaccuracy. Then careless compilation in the office of the Accountants-General is not unknown. The bad or absurd figures are not always eliminated from the returns. The greatest possible care requires to be exercised in this, because the amount of rupees examined or taken as a sample of the active circulation is exceedingly small as compared with the total estimated circulation in any year. All things considered, however, the statistics are of undoubted value, and the effect of such errors as have been referred to above is minimised by the method that has been adopted to calculate this active rupee circulation.

The rupee census shows that the percentages of several years' mintages attain their maximum value generally in two or three years after their issue from the Mints, and these then commence to decline owing to the losses referred to above. It is assumed (1) that the percentages in the rupee census table are estimates of the percentages of the several years' issues to the total stock of rupees in circulation, and (2) that the coinage of any year is completely put into circulation in the year in which the maximum percentage is attained. If from the census it appears that the mintage of any year, say 1912, attained the maximum percentage, say 5 per cent, in the year 1915, then the circulation in the year 1915 could not be more than twenty times the mintage of 1912. On the coinage, however, of a particular year it is not possible to obtain accurate results. Moreover, the loss or wastage is not allowed for. For the sake of accuracy, therefore, the coinage or mintage of the five immediately preceding years has been taken, beginning with the coinage which attained the maximum percentage in the year in which the circulation is to be estimated. The coinage of each of these five years has also been reduced to allow for the annual wastage. The geometric mean of the estimates obtained from each of the coinages will give a fairly accurate estimate of the active circulation for the year in question. The rate of wastage has been found, as explained in the footnote in Appendix II., by taking for a series of mintages the geometric mean of the ratios between the percentages in two successive years commencing with the year of maximum percentage, and by taking the arithmetic mean of all these geometric means. This arithmetic mean ultimately gives the average annual loss per rupee, and this may be taken as a fair estimate of the yearly wastage, particularly at the infancy of the coinages. The rate of wastage has thus been found to be ·0628 as compared with ·0677 arrived at by Mr. F. C. Harrison, and used also by Mr. W. S. Adie, both of whom were formerly Accountants-General in the Finance Department.

An estimate of the circulation of rupees in India during 1912 was made on these lines as follows: On the assumptions (1) and (2) made above, the circulation in the year 1912 (C_{12}) would be equal to

$$\frac{\text{Coinage of the year } 1910 \times 100}{\text{Percentage of the coinage of 1910 in 1912}}(1-r)^2$$

or

$$\frac{I_{10} \times 100}{{}_{10}S_{12}}(1-r)^2.$$

Again,

$$C_{12} = \frac{I_9 \times 100}{{}_9S_{12}}(1-r)^3$$

$$= \frac{I_8 \times 100}{{}_8S_{12}}(1-r)^4$$

$$= \frac{I_7 \times 100}{{}_7S_{12}}(1-r)^5$$

$$= \frac{I_6 \times 100}{{}_6S_{12}}(1-r)^6,$$

where I represents the coinages of the respective years, S the percentages of the particular coinages in the census of 1912, and r the average annual rate of wastage assumed constant for the period.

The geometric mean of the five values of C_{12} is 182, and this is the circulation in crores of rupees for the year 1912. This agrees very closely with the estimate which the Government Prices Enquiry Committee (of which the writer was a member) made for that year, viz. 185 crores. The Controller of Currency in his Report for the year ending March 31, 1912, estimated the active rupee circulation to be 180 crores. This is the latest official estimate. It will be observed that the average rate of wastage which has been found to be ·0628 is not the same, especially during abnormal years such as 1917, 1918, 1919. In view of this a different method has been adopted, which avoids using any value of r in estimating the circulation of any other year when once the circulation of any year (1912) has been obtained. The method is briefly as follows: The ratio between the circulation in two successive years (say 1912 and 1913, or 1911 and 1912) was first determined by using the percentages of mintages previous to those years for a series of five years. Several ratios were obtained, by shifting this series of five years backwards and forwards, and the geometric mean of these ratios, ten in number, was taken to minimise the chance of error. With these ratios and the circulation of the previous year or the succeeding year, the circulation of the succeeding or the previous year, as the case may be, can be found. The actual calculations of the rupee circulation in 1912 and in another year are shown, by way of illustration, in Appendix II.

The advantages of this ratio method are: (1) it is applicable even for years in which the ordinary method fails owing to no coinage having been undertaken in the two or three previous years; (2) the rate of wastage is not required, except for the "pegged" year, 1912; and (3) by taking the ratio between the circulation in two consecutive years, the rate of wastage does not introduce a large amount of error, as is explained in the Appendix.

As to the circulation of the subsidiary coinage any estimate, however rough, cannot possibly be made, since the wastage is extremely high, and no census is annually taken by Government. Since 1835 the coinage of half-rupees, quarter-rupees, and two-anna pieces (excluding nickel coinage) comes to R. 33 crores approximately, but this, of course, does not in any way mean active circulation.

The first thing that strikes one about Table 16 on p. 462 as one looks down it is the fact that after the closing of the Mints the active rupee circulation rose. In 1895 it decreased, and in 1898 increased very slightly, and in 1900 it was less than the circulation at the time of the closing of the Mints. The conclusion is therefore, in the first place, that the active rupee circulation actually decreased. Secondly, in the period 1893 to 1900, while the volume of active rupee circulation decreased by about 4 per cent or 6 crores, the volume of business in the same period increased 39 per cent. Even if the circulation of currency notes and the amount of cheques passing through the clearing-houses be included, the total shows an increase of about 21 per cent only as against 39 per cent in the growth of business. The following table brings this out clearly; the index numbers are given in brackets.

Rupee Circulation and Active Note Circulation in India and the Cheques cleared in Calcutta, Bombay, and Madras

Year.	Rupee circulation.	Active note circulation on March 31.	Clearings.	Total.	Index No. of growth of business.	Rate of exchange * (pence per rupee).
	Crores.	Crores.	Crores.	Crores.		
1893 .	136 (100)	19 (100)	146 (100)	301 (100)	105 (100)	14·546
1894 .	140 (103)	17 (86)	158 (108)	315 (104)	110 (105)	13·100
1895 .	138 (101)	19 (98)	176 (120)	333 (110)	109 (104)	13·638
1896 .	134 (99)	20 (103)	181 (124)	335 (111)	107 (102)	14·450
1897 .	133 (98)	19 (96)	191 (130)	343 (113)	124 (118)	15·406
1898 .	135 (99)	18 (92)	176 (120)	329 (109)	128 (122)	15·978
1899 .	132 (97)	20 (105)	203 (138)	355 (118)	131 (125)	16·067
1900 .	130 (96)	22 (113)	212 (145)	364 (121)	146 (139)	15·973

* Relates to the financial year (ending March 31) of the succeeding year.

Thirdly, the circulation steadily increased from 127 crores in 1890 to 136 crores in 1893 and exchange fell from 18d. to 15d. In 1893, 1894, and 1895, when the circulation still further advanced, the rate of exchange fell below 14d. After 1895 there was a decrease in the circulation, and the rate of exchange rose nearly to 16d. in 1899. We have seen in regard to discount rates that there was a certain amount of evidence of an enhancement of the value of the rupee in India itself in the rising of Indian discount rates greatly above the average of previous years. The effect of an increase in currency, other things being equal, is to lower exchange, and the effect of contracting it relatively to the work that it has to do is to raise exchange. This is of interest in the light of experience from August 1917 to the present time. The statistics of active rupee circulation will, as already noted, be found in Table 16 on p. 462, where the circulation from 1890 is set out.

(4) *The Fowler Committee*

We have seen that with the closing of the Mints in 1893 a divergence took place between the gold value of the silver content of the rupee and its exchange value; that at first the demand for rupees did not increase, and largely on account of the large issues before and after the passing of the Act of 1893 the supply of currency during the following years was not unequal to the demands. In October 1896 the Financial Member of Council personally had come to the conclusion that it was desirable to substitute 15d. for 16d. per rupee as the rate at which Government should be prepared to issue rupees for gold. The proposal, however, was subsequently dropped, and from this onwards there was no vacillation, in spite of many untoward circumstances which seemed to indicate that the times were out of joint. Abnormal circumstances, such as plague and famine, sadly interfered with exchange. Money had to be taken from the treasuries and sent inland for the relief of famine just at the beginning of the busy season of 1896–97. The pressure on the money market was intensified because of this depletion of treasuries on account of famine and plague and the suspension of the sale of Council drafts, a regular and accustomed source of supply of funds to the trade. With a good harvest in 1898 things resumed their normal aspect. Council drawings, which were £15,527,000 and the rate of exchange 14·450d. in 1896–97, were £9,506,000 and 15·406d. in the following year (1897–98), £18,692,000 and 15·978d. in 1898–99, and £19,067,000 and 16·067d. in 1899–1900. In other words, by 1897 and 1898 circumstances led to an increased demand for rupees, and the exchange value of the rupee rose. It became profitable soon after the Fowler Committee was appointed in 1898 to send gold to India to be changed into rupees at 16d. per rupee (*i.e.* R. 15 to the £1) which the notifications under Act VIII. of 1893 rendered possible. So long as rupees were given in exchange for gold by Government under this notification exchange could not rise above 16d. per rupee by more than the cost of shipping gold to India. Exchange could not fall below 16d. by more than the cost of shipping gold to London from India, provided Government gave gold in exchange at 16d. per rupee or sold gold bills at a fixed rate without limit, an offer which, as every one knows, Government had never bound itself to fulfil.

In August 1897 the Secretary of State asked the opinion of the Government of India as to whether the Indian Mints might be re-opened to silver as part of a contemplated arrangement under which France and the United States would open their Mints to silver as well as to gold. In September of the same year the Government of India strongly recommended that the invitation of France and the United States—the United States had appointed a Commission known as the Wolcott Commission to confer with representatives of European countries—should be declined, as they were unanimously of the decided opinion that it would be unwise to open the Mints, especially at a time when stability was being obtained by their own isolated and independent action. In December the Bengal Chamber referred to this despatch, which had declared in various places that the transition period between the rejection of silver and the adoption of the gold standard was almost ended and that the gold standard was almost established. The Chamber doubted whether the forecast was correct, since in three months that had elapsed since the despatch was written exchange had fluctuated violently, and an appreciable decline in the sterling value of the rupee had been followed by a smart rise. "The mercantile community share the desire of the Government of India," said the Chamber, "that the period of transition should not be unnecessarily prolonged, that the opportunities for speculation in exchange, of which the fullest advantage is being taken in some quarters to the great detriment of legitimate trade, should be reduced or removed." In January 1898 the Madras Chamber urged that prompt action should be taken to put an end to a state of affairs which involved periodical spasms and convulsions in the money market and drove capital away from India. They desired a stable minimum, as well as a maximum, exchange, and advocated the most careful consideration of what was known as the "Lindsay Scheme." In March 1898 the Bombay Chamber pointed out the unsatisfactory position of the currency, and the fact that for a second year in succession they found themselves face to face with a bank rate of 12 to 13 per cent. The Chamber suggested as a solution of the problem the appointment of a Committee of financiers similar to that which sat in 1893. The Secretary of State was addressed on the 3rd and 24th March 1898. In the former of these despatches it was proposed (1) to establish a gold reserve by borrowing; (2) to withdraw from circulation and to melt down rupees to raise the gold value of the rupee to 16d., a somewhat crude proposal; and (3) to increase the gold reserve by the proceeds of the sale of the bullion obtained by melting down the rupees. The value of the rupee, in short, was to be forced up by a contraction in the volume of the currency, and the 16d. rate was to be maintained by the reserve and by Government's giving gold for rupees at the rate of 16d. per rupee. In the despatch of 24th March 1898 Government said that they had finally decided not to revert to the silver standard, and that if opinion was invited it should be, not on the question of principle, but only on the practical methods of effectively establishing the gold standard. They did not object to a Committee, although the appointment of such a Committee must involve delay. Two days before the receipt of this despatch the Secretary of State had decided to appoint a Committee to consider and report on the proposals of the Government of India and upon any other matter relevant thereto, including the monetary system now in force in India. The Committee was also asked to report on "the probable effect of any proposed changes upon the internal trade and taxation of that country; and to submit any modifications of the proposals of the Indian Government, or any suggestions of their own, which they may think advisable for the establishment of a satisfactory system of currency in India, and for securing, as far as is practicable, a stable exchange between that country and the United Kingdom."[1] Sir Henry Fowler (Lord Wolverhampton) was Chairman of this Committee of eleven. It was appointed in April 1898, and reported in July 1899, after having held forty-three meetings and examined forty-nine witnesses.

Two schemes for the establishment of a gold standard without a gold currency were referred to by Government in their despatch to the Secretary of State dated March 3, 1898. The first of these was associated with the name of Mr. A. M. Lindsay, Deputy Secretary of the Bank of Bengal, whose scheme was described in various papers between 1876 and 1898. One witness had supported it with indifferent success before the Herschell Committee,[2] but that Committee merely passed it by with "other plans which have been suggested." The *locus classicus* for a description of this scheme is Mr. Lindsay's evidence before the Fowler Committee on pp. 112-158 of Part I. of the Minutes of Evidence.[3] The plan is based on Ricardo's *Proposals for an Economical and Secure Currency*, especially Section IV. on "An Expedient to bring the English Currency as near as possible to Perfection."[4] This scheme as put forward to the

[1] Para. 3—Letter from the Secretary of State to Sir Henry Fowler, dated 29.4.1898.

[2] *Vide* evidence of Mr. MacDonald, 579-592 (C. 7060, 11. 1893).

[3] C. 9037, 1898.

[4] Pp. 390-454, McCulloch's edition (1852) of Ricardo's Works (London, John Murray).

Fowler Committee provided for a gold standard reserve fund to be kept mainly in London. A part would be kept in Bombay and Calcutta in rupees. In Mr. Lindsay's own words, "£10,000,000 sterling should be raised in London by a long-term loan (say 15 years' currency), and should be deposited in the India Office or the Bank of England. The fund might be styled the Gold Standard Reserve, and the office dealing with it might be called the London Gold Standard Office. It should be announced that the London Gold Standard Office will be prepared to sell to all applicants rupee drafts for sums of R. 15,000 and upwards in exchange for sterling money at the rate of 1s. $4\frac{1}{16}$d. per rupee. . . . I propose, on the one side, a limit of 1s. $4\frac{1}{16}$d., and on the other side, a limit of 1s. $3\frac{3}{4}$d., and that the limit of amount should be, in the case of rupees, 15,000, and in the case of sterling, £1000. The rupee drafts should be drawn on two offices, to be opened either in the Indian Mints, or in the Calcutta and Bombay Presidency Paper Currency Offices."[1] Mr. Lindsay was of opinion that the demands for drafts on the Gold Standard Reserve would come almost entirely from the Presidency banks, which hold largely the balances of the Exchange banks. He found that the variations in these cash balances were from $3\frac{1}{2}$ to $10\frac{1}{2}$ crores, *i.e.* 7 crores. To be on the safe side he doubled this and arrived at a sum which would be more than sufficient to redeem R. 15 crores (at 1s. $3\frac{3}{4}$d. per rupee), viz. £10,000,000. When exchange rose to gold import point ($16\frac{1}{16}$d., a rate sufficiently low to avoid the temptation of shipping gold to be converted into rupees) the Bank of

[1] 3382 ff. Cf. Lindsay's *Ricardo's Exchange Remedy* (London, Effingham Wilson, 1892).

England would sell rupee drafts (not sovereigns) on the rupee part of the Gold Standard Reserve held in Calcutta and Bombay. The net result of this would be to increase the rupee circulation in the same way as if gold coin had been imported. The exporter similarly would have a draft on the Gold Standard Reserve in London at 15¾d. (¼d. being the cost of freight insurance, etc., if gold had been exported to London). The rupees given in payment for these drafts were, of course, withdrawn from circulation. The circulation was reduced just as if gold coin had been taken from circulation and shipped to London. If the rupee branch of the Gold Standard Reserve were low, demand drafts might give place to usance drafts, which would allow time to ship silver to India for coinage before the drafts matured, or transfers between the Gold Standard Reserve and the Paper Currency Reserve might be made in emergencies, the bullion in process of shipment and coinage being credited to the Paper Currency Reserve. A corresponding amount of notes or rupees would, of course, be transferred to the Calcutta or Bombay branches of the Gold Standard Reserve. Mr. Lindsay held that a gold currency was unnecessary in India, where every one looked on the rupee as the store of value. There was, however, a special need for a gold standard which would inspire confidence, and everything depended on convertibility. If gold, in short, were available in London for a fixed number of rupees paid in India, the rupee currency would not become redundant and would not depreciate in its gold value. Rupees, too, if always available in India at a fixed rate against gold paid in London, would prevent the rupee currency from becoming scarce, and therefore from appreciating on its gold value. The compensatory action in these conditions is clear, especially in the light of the valuable experience which the war brought in its train. We shall, however, refer to this in the following chapter.

The scheme, put forward mainly by Mr. Lindsay, and since known as the "Gold Exchange Standard," was unfavourably received by the Government of India. In the despatch of March 3, 1898, Government said:

> This scheme, like our own, operates largely through the withdrawal of rupees now in circulation, and though it has much to recommend, our main reason for deciding not to adopt it is that it would involve us in a liability to pay out gold in London in exchange for rupees received in India to an indefinite extent. Even if the ultimate liability were not greater than under our scheme, still its extent, from time to time, would be quite beyond our control, and we can easily conceive that we might find ourselves unable to discharge it on certain quite possible suppositions as to the market rate of exchange and as to the comparative redundancy of the existing volume of the rupee currency. Mr. Lindsay, it appears to us, does not give sufficient weight to one fundamental necessity of our position, namely, that we must remit, in the contrary direction to that in which the offer suggested by Mr. Lindsay would be operative, an annual sum of about £17,000,000 to discharge our sterling liabilities. In addition to his anticipation that the Indian money market could not support the withdrawal of the number of rupees which would suffice dangerously to reduce the gold reserve, Mr. Lindsay relies on the general confidence in the future stability of exchange which the promulgation of his scheme would induce, as being certain to prevent the demand for gold in London rising to a sum which would occasion us any inconvenience; but we think that such confidence is much more likely to be established by the accumulation of a strong gold reserve in India than under his plan, which contemplates the keeping

of the reserve in London, and we prefer to establish confidence by that measure without involving ourselves in a liability we might possibly not be able to discharge.

In his evidence before the Fowler Committee Mr. Lindsay in the first place denied the liability to be unlimited, for the simple reason that only a limited amount of rupees could be withdrawn from the money market to purchase the Government drafts under his scheme. More than a limited amount of rupees could not be withdrawn without causing a stringency which would automatically stop the withdrawal of further funds. Mr. Lindsay further pointed out that the liability of Government was much greater under their own scheme than under his, because the redemption in gold in India would make inroads on the gold reserve not merely for foreign exchange purposes but for internal circulation and hoards. The Finance Member of Council (Sir James Westland) further criticised the scheme in a minute forwarded with the despatch above, on the ground that (1) "a gold reserve intended to support the introduction and maintenance of a gold standard in any country ought to be kept in the country if it is to produce its full effect in the way of establishing the confidence which is almost indispensable to the success of the measure"; and (2) Government did not by this scheme have sufficient control over the exchange situation. Mr. Lindsay in regard to the first criticism believed that it was only people who sent out capital to India that were concerned in this matter. The token rupees would meet the requirements of all those who worked with local capital. Moreover, the gold would, if located in London, be used solely for fixing exchange and would not be frittered away in hoarding or internal circulation.

London, the one great centre for the settlement of international indebtedness, was the spot where gold was required for settling India's indebtedness. Such a gold reserve could always be conveniently replenished at short notice in London, which would not be the case in India. Among other reasons for the location of the fund in London were, that there was no danger of the gold being absorbed into hoards; India being far from London, the issue of fresh currency in a monetary crisis would have to be delayed until gold could be imported, and silver for coining fresh rupees could best be bought in London, and therefore it was convenient to have the gold there with which to purchase it. Mr. Lindsay also said that the object of his scheme was to prevent the use of gold as currency, and to confine its use to the settlement of India's balances of foreign indebtedness when required. It was a pure waste of time and money to bring gold out to India merely for the purpose of having to send it back.[1] In reply to Sir James Westland's second criticism that Government would not have sufficient control over the exchange situation, he said freedom from governmental intervention was one of the scheme's undoubted merits, and the scheme of a gold standard without a gold currency would work as automatically as a gold standard with a gold currency. In answer to Sir David Barbour's criticism that the Government of India might be called to find a considerable amount of gold at a time of great tightness, even panic, in the London money market, Mr. Lindsay[2] said that the gold would merely be transferred from one account to others in the Bank of England. "A gold currency system is also liable to break down in exceptional

[1] Q. 4056, C. 9037, 1898. [2] Q. 3572–3574, C. 9037, 1898.

circumstances. During the Franco-Prussian War the French had to suspend the convertibility of their notes. I do not for a moment anticipate that the Government of India can ever be put in the position of having to suspend temporarily the convertibility of rupees into sterling drafts on London; but still that would be excusable during a panic." Mr. Lindsay was gifted with admirable enthusiasm, and affirmed that the scheme of a gold standard without a gold currency would be adopted as the best of all systems and would come into use imperceptibly and unnoticed. It was, however, rejected by the Fowler Committee, which was greatly impressed by the evidence of Lord Rothschild, Sir John Lubbock (Lord Avebury), Sir Samuel Montagu (Lord Swaythling), who held that any system without a visible gold currency would be looked on with distrust. The Committee, in view of this expression of opinion, concluded that "the adoption of Mr. Lindsay's scheme would check that flow of capital to India upon which her economic future so greatly depends. Moreover, if the system were to be permanent, it would base India's gold standard for all time on a few millions of gold (or rather command over gold) in London, with a liability to pay out gold in London, in exchange for rupees received in India, to an indefinite extent. This was the main reason which weighed with the Government of India in deciding not to adopt the scheme, and we think they were justified in their conclusion." [1]

The gist of Sir Lesley Probyn's bullion scheme was outlined in his book on *Indian Coinage and Currency* [2] and in his evidence before the Fowler Committee. Like Mr. Lindsay, Sir Lesley Probyn suggested a

[1] Fowler Committee's Report, para. 53 (C. 9390, 1899).
[2] London, Effingham Wilson, 1897.

gold standard without a gold currency. The scheme proposed the introduction of a gold certificate or Government note of R. 10,000 denomination. It would be given in exchange for gold. Notes of smaller denominations would also be issued in exchange for gold and silver rupees as usual, but these smaller notes would be redeemable only in silver rupees. Gold would be received at Government treasuries, but except as regards the special R. 10,000 notes, gold certificates would not be legal tender. The gold reserve would be held in India, and to prevent the gold from being dissipated Sir Lesley Probyn proposed that gold would not be coined, but kept in stamped bars of a high value.[1] In short, gold would not be made a legal tender in India, but Government would hold a reserve of gold and be prepared to receive gold in exchange for currency notes of not less than R. 10,000 each, and to pay gold in exchange for notes of not less than R. 1000 each. Government objected to the scheme because they did not think it necessary to refuse to have legal tender gold coins of a convenient value. "We are, moreover, not satisfied that there would be any smaller disappearance into hoards of the gold bars, which would be easy to subdivide, than of gold coins. We are also of opinion that the simpler and more direct a monetary standard can be made, the more acceptable it will be to the public. We think that the only state of things which can be called a thoroughly satisfactory attainment of a gold standard is one in which the gold coins which represent our standard are those also which are good for payments in England." The Fowler Committee did not favour

[1] Q. 6859, C. 9037, 1898.

the scheme. The habit of hoarding, the Committee believed, did not present such practical difficulties as to justify a permanent refusal of a gold currency, then the normal accompaniment of a gold standard.

Sir James Westland resigned the Financial Membership of Council before the Fowler Committee presented its Report. He vacated office after the Budget in March 1899, and was succeeded by Sir Clinton Dawkins. During the period in which Sir James Westland was Finance Member of Council (1893–1899) the currency reform laid down by Sir David Barbour was followed with great, perhaps even excessive, caution. But no one who knew him had the least doubt that he was the best man for the place. Like Sir David Barbour, he possessed a dominating sense of public duty and was a tower of strength in all the activities of the Department, however novel or heavy the duty that was required of him. It was in this period that the sterling value of the rupee gradually attained the rate of 16d. and the gold standard was all but established. No guardian of the public purse had to contend with greater vicissitudes of fortune. Like his predecessors, Lord Cromer, Sir Auckland Colvin, and his successor, Sir Clinton Dawkins, he spent some time in Egypt in a financial capacity, but the siren voice of the Indian Finance Department sang in his ears, making it impossible to shake off the wonderful and perfectly irresistible fascination of the Department in which he served for nearly twenty-nine years. His disembodied spirit still hovers over the scene of his far-reaching labours and communicates a stimulus to his successors. On his return to England Sir James Westland was appointed to the Secretary of State's Council, where he found the comparative leisure of a consultative post somewhat irksome after the laborious enterprise of the previous six years. Sir Clinton Dawkins held the office for only one short but busy year, resigning in March 1900. During that time, however, his wide knowledge and high authority in finance were of great value.

The Fowler Committee reported in July 1899 and rejected the proposals made in 1898 by the Government of India, the cardinal principle of which was to raise the value of the rupee by contracting the volume of the currency. In paragraph 44 of their Report they pointed out that, if the Government of India could have anticipated the events of 1898–99 (when over £2,000,000 of gold tendered in exchange for rupees at 1s. 4d. had accumulated in the Paper Currency Reserve and exchange had risen from 15·406d. to 15·978d., *i.e.* to practically 16d.), their recommendations might not have taken the precise form in which they were put forward for the consideration of the Secretary of State. "We are informed that, even if their proposals had been sanctioned at once, they would not, under the conditions that have since prevailed, have given effect to that portion of their scheme which provided for the withdrawal of rupees from the Indian currency." This some have taken as an acknowledgment of the crudeness of the scheme originally submitted to the Secretary of State. It is, however, to be remembered that in the twelve months following the despatch of March 1898 events moved rapidly, and much occurred that was not dreamt of by those responsible for currency policy in this country.

The Committee also pronounced against all proposals for the re-opening of the Indian Mints to the free coinage of silver, and proceeded to point out that the practical alternative to silver monometallism was a gold standard, gold being, in other words, the measure of value either with a gold currency or with a gold reserve. "Even apart from considerations primarily affecting the Government of India, it is not in the permanent interests of India that her foreign commerce, over 80 per cent of which is with gold-standard countries, should be hampered by the restoration of silver monometallism" (para. 30). The change to a gold standard was, as Dr. Marshall had said from the point of view of foreign trade, like bringing the railway gauge on the side branches of the world's railways into unison with the main lines. A stable exchange would enable capital not merely to flow in but to flow out without depreciation, and this was all to the good of India's commercial and industrial expansion. The Committee, therefore, decided to recommend the effective establishment of a gold standard, because uncertainty would continue as to the ultimate success of the gold standard, unless steps were taken. "Government both in India and at home would be pressed for a final pronouncement, alike by the friends and by the foes of a gold standard; and meantime the material interests of India would suffer from the withdrawal of confidence in her monetary future" (para. 41). In view of these considerations the Committee recommended that—(1) The British sovereign should be a legal tender and a current coin in India. (2) While the Indian Mints should remain closed to the unrestricted coinage of silver, they should be opened to the unrestricted coinage of gold on some such terms as govern the three Australian branches of the Royal Mint. (3) The ratio between the rupee and the pound sterling should be 15 rupees to the pound, *i.e.* that the exchange value of the rupee should be 16d. (This rate was recommended by nine out of the eleven members, the remaining two preferring 15d. The 16d. rate, however, was the rate to which, broadly speaking, trade and prices had then accommodated themselves.) (4) With regard to the convertibility of the rupee no legal obligation to give gold for rupees should be accepted. "Government should continue to give rupees for gold, but fresh rupees should not be coined until the proportion of gold in the currency is found to exceed the requirements of the public." (Had the obligation to give gold for rupees been accepted it would have imposed on the Government of India a liability to find gold at a moment's notice to an amount that could not possibly have been defined beforehand. It would have involved borrowing an indefinite amount of gold for the purpose of convertibility. Moreover, a stock of gold acquired for this purpose would be watched with feverish anxiety, and any shrinkage would lead to apprehension. The Committee rightly recommended that such a liability should not be accepted.) (5) Any profit on the coinage of rupees should not be credited to the revenue or held as a portion of the ordinary balance of the Government of India, but should be kept in gold as a special reserve, entirely apart from the Paper Currency Reserve and the ordinary Treasury balances. The Gold Standard Reserve is the result of this recommendation. The use of this reserve was thus stated in a following paragraph :

Although the Government of India should not, in our opinion, be bound by law to part with its gold in exchange for rupees, or for merely internal purposes, we regard it as the principal use of a gold reserve that it should be freely available for foreign remittances whenever the exchange falls below specie point; and the Government of India should make its gold available for this purpose, when necessary, under such conditions as the circumstances of the time may render desirable. For example, the Government of India might, if the exchange showed a tendency to fall below specie point, remit to England a portion of the gold which it may hold—a corresponding reduction being made in the drawings of the Secretary of State; and, when it has accumulated a sufficient gold reserve, and so long as gold is available in its Treasury, it might discharge its obligations in India in gold, instead of in rupees. (Para. 59.)

In addition to these five recommendations which the Secretary of State in his despatch of July 25, 1899, accepted, was the important suggestion made in a separate note by Sir Everard (then Mr.) Hambro for the improvement and concentration of banking facilities by the foundation of a large bank on the lines of the Bank of England or the Bank of France. The Secretary of State (Lord George Hamilton), in the Indian Budget debate in the House of Commons in August 1899, said: "I have certainly come to the conclusion from my experience that we are endeavouring to finance the export commerce and trade of India on too small a cash basis, or perhaps I should be more correct in saying too small a loanable capital basis. I believe there is room for a bank such as that suggested by Mr. Hambro, but in attempting to establish any such bank the rights of the Presidency banks must in no sense be prejudiced or overlooked. Some contend that there would be a difficulty in finding continuous employment for a bank with a large amount of capital, but Mr. Alfred de Rothschild, who speaks with exceptional authority on this point, read an admirable paper before the Committee which pointed to an opposite conclusion. The views which I have expressed are, I know, held both by the Viceroy and the Finance Minister in India; we are in communication with the Indian Government on this point. Although I quite admit that there are very serious difficulties to be overcome, they do not seem to be in any sense insuperable."

It will be clear from the recommendations of the Committee that their supreme aim was the effective establishment of a gold standard and a gold currency in active circulation. They contemplated for a time at least an approximation to the French currency system in which gold coins and silver five-franc pieces are both unlimited legal tender. This meant that the rupee was before long to have the sovereign as a serious rival. On the publication of the Report the Government of India at once accepted the recommendations, and the Indian Coinage and Paper Currency Act (XXII. of 1899) was passed on September 15, 1899. The Act made the sovereign and half-sovereign legal tender throughout India at R. 15 and R. 7½ respectively, and authorised the issue of notes in exchange for these coins. Not only was gold made legal tender, but an appreciable quantity was put into circulation. The Government of India were confident as to the future, and the pound sterling after an absence of many years was brought back into the annual Financial Statement. It unfortunately proved impossible to give effect to the second recommendation, the opening of a Mint for the coinage of gold in India, in view of administrative difficulties which had arisen between the Treasury and the Indian authorities. The scheme was dropped, as we shall see, in 1902 when nearing completion.

The demand for rupees continued notwithstanding that sovereigns and half-sovereigns were now legal tender, and Government for the first time since 1893 had to consider the question of the resumption of coinage. The Gold Note Act of 1898, which gave increased elasticity to the currency by the issue of notes or rupees in India against gold tendered in London, was an added strain to the rupee reserves. In regard to the gold reserve Government were embarrassingly successful. There was not a single month in 1899 in which some gold did not arrive, and the stock which stood at under R. 3½ crores in July had increased to R. 5½ crores in November, as the following table shows :

PAPER CURRENCY RESERVE

(Lakhs of rupees.)

	Silver coin.	Gold.	Gold held in London under Act II. of 1898.
April 15, 1899 . . .	14,62	3,25	..
July 15, 1899 . . .	15,59	3,54	..
October 15, 1899 . . .	12,35	4,17	..
November 15, 1899 . .	10,84	5,56	97
January 15, 1900 . .	6,99	7,59	1,80
February 15, 1900 . .	5,85	9,51	2,25
March 15, 1900 . . .	4,96	10,83	2,25
April 15, 1900 . . .	4,13	11,79	2,25
July 15, 1900	7,04	12,82	75

The Secretary of State asked at this point how long it would be safe to go on substituting gold for rupees in the Paper Currency Reserve. The note circulation was then about 27 crores. In the reserve were 10 crores of securities and 17 crores in coin and gold bullion. Government considered that if there were rupees to the extent of 9½ crores, there would be no danger of having to exercise the option of paying currency notes in sovereigns against the wishes of the presenters of notes. This would leave 7½ crores to be held in gold. When, therefore, the stock of gold reached £5,000,000 currency offices at Calcutta and Bombay would be instructed to offer sovereigns to presenters of notes, but to give rupees to any one who objected to receive sovereigns and asked for rupees.

The contingency soon occurred. The stock of gold in India reached £5,000,000 by the middle of January 1900, and a beginning was then made to force sovereigns into use as a circulating medium. The results were anything but satisfactory. The coins made their way back to Government treasuries. The stock of gold kept on increasing, and owing to famine requirements the Treasury balances, from which some temporary relief had been expected, were unprecedentedly low. In February and March these balances were more than R. 3 crores below the corresponding figures of the previous year. At the end of February the silver in the Paper Currency Reserve had fallen below R. 5 crores in place of R. 9½ crores mentioned in the despatch to the Secretary of State, and an embarrassing situation had in fact arisen which a few weeks later became critical. In other words, 5 crores of rupees had to secure the convertibility of R. 27 crores of notes as well as of fresh imports of gold, without assistance from Treasury balances in which the rupee balance was less than R. 4½ crores.

In the meantime additional rupee coinage was undertaken. In January and February 32 lakhs of uncurrent rupees were recoined, and at the same time sufficient bullion was secured in India to coin another crore of rupees. Silver was freely purchased in England, £500,000 worth being ordered in March, £500,000 in April, £500,000 in May, and £400,000 in June. Altogether, in the first six months of 1900, Government undertook about 6½ crores of new coinage. In March it was decided to push gold into circulation with still greater energy. Above one-eighth of the treasuries were supplied with gold to supply any one who might ask for it. Presidency banks were asked to pay all claims on Government account in the Presidency towns and Rangoon as far as possible in sovereigns. Post-offices in these places were directed to pay money orders in sovereigns, and minor treasuries to which a special supply of gold had not been sent were authorised to pay out to applicants sovereigns received from the public in ordinary transactions. The months of February, March, and especially April, were then a period of great strain. On April 11 the Currency Office in Calcutta was unable to cash (in rupees) three lakhs' worth of notes tendered by a leading firm, and on the same afternoon the ordinary public demand exhausted the rupee balance an hour or two before closing time. Between February 1900, when the stock of rupees in the Paper Currency Reserve fell below 5 crores, and March 1901, when it suddenly rose from 6 to 9 crores, the difficulties, especially in April 1900, had proved the practical need for additional coinage. Notes in some places, as in Cawnpore, became subject to a discount of as much as $\frac{7}{16}$ per cent, and there was a danger of a failure of confidence in the paper currency. Sovereigns went to a discount of as much as 4 annas. Famine conditions which necessitated special demands for rupees aggravated the monetary stringency. The Gold Note Act of 1898 was continued for another two years with a provision authorising the use of the gold in the London branch of the Paper Currency Reserve for the purchase of silver for coinage; silver thus purchased was treated as part of the reserve against notes issued in India.

Since 1900 the forcing of sovereigns into circulation has not been attempted, as experience showed that any such efforts reacted upon the note circulation. The chief lesson learned was that gold is only a marginal currency, and that a shortage of rupees invariably results in an absolute *impasse*. A constant and consistent policy to provide at all times a sufficient stock of rupees was necessary, and it was clear that this could not be done by a mere wave of a magician's wand.

CHAPTER VI

INDIAN CURRENCY—1900–1919

I

The Outstanding Names of the Period

A LARGE part of the ground in regard to the currency system in the twentieth century has already been covered in the chapters dealing with the currency system before the war (Chapter II.) and the working of the system in war time (Chapter III.). In the present chapter we shall deal with the more outstanding events of the period and with certain broad conclusions that have not been referred to in these chapters.

Sir Edward Law succeeded Sir Clinton Dawkins on March 31, 1900, and, except for a short period in 1902, held the financial portfolio for nearly five years. He came to India in a military capacity early in his service, but retired from the Army in 1872. Of Russian and Greek finance he might be said to have been a past master. His system of the consolidation of Greek revenues won for him a high place in the affections of the Grecian people. Shortly after he took over charge of the Indian Finance Membership of Council he lost no time in assisting to complete the currency reform marked out by his predecessor. Much of the constructive policy from 1900 to 1905 owes its origin to the work ably begun in 1900. Sir Edward Law retired in January 1905, a few months before the completion of his term of office, as he dissented from the views of the Viceroy in his controversy with Lord Kitchener. His successor was Sir Edward Baker, who resigned in July 1908 on his appointment as Lieutenant-Governor of Bengal. Sir James Meston officiated until the arrival of Sir Guy Fleetwood Wilson in November of that year. Sir Guy Fleetwood Wilson, except when on leave for some months in 1912, held the appointment until June 1913. Sir William Meyer succeeded Sir Guy Fleetwood Wilson and was Finance Member throughout the war period. He resigned in November 1918 and was succeeded by Sir James Meston, who like a predecessor, Sir William Muir, came from the Lieutenant-Governorship of the United Provinces to what is perhaps in practice the most difficult, if not the most important, of the portfolios in the Viceregal Cabinet. The four outstanding names in the period are Sir Edward Law, whose share in the creation of the Gold Standard Reserve, the fulcrum of the currency system, was a great one. Indeed, the Secretary of State in the 13th December despatch began by expressing his high appreciation of the ability with which Sir Edward Law had treated this important subject, and of the care shown in dealing with various questions of detail connected with it. Sir James Meston played a very important part in the development of the system, since he was temporarily Finance Member in 1908, as we have already seen, and Financial Secretary for the unusually long period 1906–1912. He was, therefore, through the thick of the controversy on the Gold Standard Reserve which is referred to in a later part of this chapter. Again, from November 1918, when the depletion of the rupee balances had not recovered from the silver crisis earlier in the year, Sir James Meston was Financial Member of Council. As in the case of Sir James Westland, what was Aberdeen's loss was certainly India's gain. Like Sir James Westland, too, and many of the predecessors in the appointment, he had spent some time abroad in an official capacity. Sir James Meston was lent to the South African Government (Cape Colony) in 1905. The third name is that of Sir William Meyer, who nursed India's finances in the stress and strain of the great war. He was, as Sir James Meston said, "almost the last of a school which went through a period of hard training in the days of the falling rupee when the struggles to make both ends meet were extremely bitter, and economies which would now be regarded as unspeakably sordid were the ordinary practice of the Finance Department. It is wholly unfair to speak of that school, as one hears it sometimes spoken of, as having been penurious and lacking in enterprise; there are very few of us to-day who realise how infinitely easier conditions are with us in the India of to-day, and against what difficulties our predecessors had to strive to maintain the credit of the Indian Government in the money markets of the world. It was their conservatism and their sense of duty which armed us to come through the last four years as we have done, and Sir William Meyer carried out to the last the stern financial traditions to which we owe so much." At the India Office throughout all this period was a permanent official who served the financial interests of India with conspicuous efficiency and a zeal particularly his own. Sir Lionel Abrahams joined the Finance Department of the India Office as early as 1894, and from 1902 to 1911 was Financial Secretary. He held that post until 1911, when he was appointed Assistant Under-Secretary of State, a post in which he has had to deal with financial and currency questions. Sir Lionel Abrahams has been to the India Office what Lord Welby was to the Treasury, and Lord Cunliffe in war time to the Bank of England. It was probably of Sir Lionel Abrahams that Sir James Meston was thinking when he referred in his evidence before the Chamberlain Commission to the fact that in the Secretariat in India "we have not got anything like the trained competent staff that a public office in London has."

II

Currency Policy, 1900–1907

India is a land of surprises, especially in the domain of finance. With the best intention in the world no Government could have carried out the Fowler Committee's recommendations in view of the invaluable experience of 1900. The rupee could not be dethroned by gold: it had been coined for 380 years, and had been looked on not only as a suitable circulating medium but also as an excellent store of value. The steady compulsion of events had shown that a standard of currency similar in many ways to that recommended by Mr. Lindsay, viz. a gold standard supported by gold in reserve with a currency for internal use composed mainly of rupees and notes, rather than a gold standard with a gold currency, was the more suitable for India. Still, especially during the regime of Sir Guy Fleetwood Wilson, the most strenuous attempts were made to carry out the Committee's recommendations, which were, until the Chamberlain Commission met in 1913, the last authoritative word. The standard as introduced differed from Mr. Lindsay's scheme because, in place of the reserve being dependent on borrowing in a crisis, the actual reserve of gold or sterling assets, the accretion of rupee coinage profits, was in existence. The very vital experience of 1900 showed that only a certain amount of gold could be held in the Paper Currency Reserve in India. Beyond that amount it was dangerous to keep the yellow metal in that reserve. It was, therefore, necessary to refuse gold bullion in certain circumstances, to limit the quantity of gold to be held in the Currency Reserve, and to arrange for the conversion of the excess into rupees. In addition to this, the experience of 1900 had shown the necessity of maintaining an adequate supply of silver and of subordinating the accumulation of gold to that of a sufficiency of rupees. For a steady exchange a special reserve was necessary. Sir Edward Law, in his minute of June 28, 1900, was of opinion that in twelve months gold had practically taken the place of silver in the Paper Currency Reserve, but that an increase in the rupee coinage was to be deprecated without some definite guiding principle, since this was likely to lead to a redundancy of rupees. He laid down three principles: (1) The quantity of gold to be kept in the Paper Currency Reserve must be limited. "Owing to the smallness of the sums representing an enormous proportion of commercial transactions, and the very conservative habits of the people, no one at present requires gold as the circulating medium in India, and consequently the existing stock, as far as currency purposes are concerned, is of no immediate practical value in case of sudden demands for the encashment of notes. The only way in which it represents suitable security for the paper currency is that it is convertible by sale into silver bullion, from which bullion rupees may be coined. Hence under existing conditions the gold in the Currency Reserve can only be considered as an investment subject to the same conditions as the ten crores held in Government securities." Sir Edward Law was of opinion that a maximum sum of approximately £7,000,000 only may safely be held in the Paper Currency Reserve. (2) Any excess above this limit should be devoted to the purchase and coinage of silver. (3) The entire profits on rupee coinage should be devoted to the building up of a supplementary gold fund unconnected with the Currency Reserve. This latter proposal formed the coping-stone of the whole policy of exchange. There were other suggestions,[1] such as the transfer of the interest of the paper currency investments from general revenues to the gold reserve fund. The Secretary of State, however, in his despatch of December 13, 1900,[2] accepted the three main proposals only. This despatch marks in reality the foundation of the Gold Exchange Standard and the beginning of the Gold Standard Reserve, the pivot of the system. The intention of the Government of India was that this should be a redemption fund

[1] Cf. The Royal Commission on Indian Finance and Currency, vol. i., Appendix to the Interim Report, Cd. 7070, 1913.

[2] Despatch from the Secretary of State, No. 232, dated December 13, 1900, p. 126, Cd. 7070, 1913.

consisting chiefly of gold, located in India in a special chest, and under Government's own lock and key. The Secretary of State, however, decided that the profits should be remitted to London and invested in sterling securities, since London was the place in which the reserve would have to be used. The Secretary of State's idea was, in short, to invest the fund in sterling securities and hold it in London, where was the London branch of the Paper Currency Reserve. It would thus be a secondary reserve in times of a falling exchange. The action taken as regards a gold currency in 1900, the limitation of the gold to be held in the Paper Currency Reserve, the abandonment of the scheme of a Central Bank in 1901, and the abandonment of the proposal to coin gold in India in 1902, are interesting departures from the Fowler Scheme of 1899.

In the earlier years of the existence of the Gold Standard Reserve, the profits on coinage were remitted to London by shipments of gold, the gold being taken out of the Paper Currency Reserve in exchange for newly coined rupees. From 1905 Council drafts were sold in order to meet trade demands for remittances to finance the export trade of India. This prevented the accumulation of gold in India where gold was not in active circulation. This procedure avoided the consequent expense of shipping gold to London by Government, and gave to the Secretary of State an additional income previously paid by importers for freight and insurance of gold to India. Act IX. of 1902 made the Gold Note Act (No. II. of 1898 extended as Act VIII. of 1900) permanent, *i.e.* the practice introduced in 1898 of selling Council drafts for gold in London against the issue of notes to an equivalent amount in India became a permanent and important feature of the Gold Exchange Standard. Since 1904 until January 1917 the Secretary of State kept open a standing offer to sell drafts without limit at 1s. $4\frac{1}{8}$d., the normal gold export point from London to India. These drafts are met from (1) Treasury in India, or (2) from Currency, a corresponding transfer of gold[1] to the currency chest being made in London, or (3) from the Indian or silver branch of the Gold Standard Reserve while the silver branch was in existence. When necessary, silver is purchased from the proceeds of Council drafts and shipped for coinage to India. Whenever sovereigns accumulate in India to an inconvenient degree it was customary before the war to offer telegraphic transfers against sovereigns in transit from Australia or Egypt to India at 1s. 4d. or 1s. $4\frac{1}{32}$d., *i.e.* at a rate sufficient to make it worth while to divert the gold from India. At the option of the institution tendering the sovereigns, transfers were granted, (A) in the case of gold consigned from Australia, either (1) ten days after the departure from Fremantle of the vessel in which the sovereigns were shipped, at the rate of 1s. 4d. per rupee; or (2) on the day following the departure of the vessel from Fremantle, at the rate of 1s. $4\frac{1}{32}$d. per rupee; (B) in the case of gold consigned from Egypt, either (1) on the advertised date of arrival at Bombay of the next Peninsular and Oriental vessel leaving Port Said after the date of shipment of the sovereigns to London, at 1s. 4d. per rupee; or (2) on the date of shipment from Egypt to London, at 1s. $4\frac{1}{32}$d. per rupee. Since 1905, therefore, Government have not, generally speaking, found it necessary to ship sovereigns on

[1] Recently the next best thing—British Treasury Bills.

Government account to London except in the case of light coin, remittances for ear-marked gold in the London branch of the Paper Currency Reserve or the Gold Standard Reserve being made by the sale of Council drafts. Gold, of course, continued until after the outbreak of war, as we have seen, to come to India both as sovereigns and bullion in busy seasons to such an extent that its presence in the Paper Currency Reserve was at times even inconvenient. A large part of this gold was, of course, presented on arrival at the currency offices for conversion into notes and rupees. Since 1905 a portion of the Paper Currency Reserve has been continuously held in London in gold. It serves a twofold purpose: (1) it may be used in payment for purchases of silver, and (2) it may act as a support to exchange when the balance of trade goes against India. In 1905 a remittance of £5,000,000 was made in gold from India to be held in England as part of the reserve.[1] The silver portion in India was then less than one-third of the total reserve, and the gold portion had risen to the disproportionate figure of £11,000,000. The reasons for the remittance of £5,000,000 were not clearly understood at the time, and Sir Edward Baker in his speech on the Financial Statement for 1906–1907 explained the real nature of the transaction and the function of the London branch of the Paper Currency Reserve. He emphasised that (1) gold was one stage nearer the point at which it becomes effective for securing the encashment of currency notes, *i.e.* for the purchase of silver bullion. What the presenter of currency notes requires is not sovereigns but rupees.

[1] The correspondence is published on p. 284, Appendix VIII., Chamberlain Commission, Cd. 7070, 1913.

(2) It enabled the Secretary of State to effect his silver purchases without publicity and in the most convenient manner. It was open to him either to treat the silver so purchased from the first as a portion of the reserve, or, if preferred, to pay for it in the first instance from his Treasury balances, and then subsequently to recoup these from the currency chest. (3) It was a means of replenishing the Secretary of State's Treasury balances. If Council drafts could not be sold the Secretary of State could draw on this gold. This gold would be transferred to his Treasury account, a corresponding transfer of either rupees or gold being simultaneously made in India from Treasury to Currency. (4) It afforded a relief to Indian Treasury balances when trade demands for Councils were too large for treasuries to meet. The Secretary of State would pay the proceeds of these drafts into his currency chest, an equivalent amount in rupees in India being set free to meet the drafts. (5) It facilitated the prompt investment of the receipts of the Gold Standard Reserve. The Secretary of State at any moment drew the equivalent of the profits on coinage from his currency chest, and invested it on behalf of the Gold Standard Reserve, a corresponding transfer being made in this country from the Gold Standard Reserve to Currency. In 1906 a special rupee reserve in India outside the Paper Currency Reserve was formed and charged against the Gold Standard Reserve by holding the profits of the coinage of rupees in the reserve in rupees instead of converting them into sterling in London. This was intended to prevent the possibility of a scarcity of rupees and the exchange value of the rupee going over 1s. 4d. The name of the Gold Reserve was

changed, as suggested by the Secretary of State in 1900, to the Gold Standard Reserve. From this year to 1915 it had an Indian branch (in which there were rupees) and a London branch (in which there were gold and sterling securities). The ideal method of holding a silver reserve would doubtless have been to purchase silver bullion from revenue or from loan funds, and to hold this as Government hold stocks of rails or military stores. This method, however, was discarded on account of its costliness at the time when such a fund was proposed. This, however, is, especially in view of the silver crisis of 1918, worthy of consideration at the present time—should or should not a reserve of silver be held in the two Indian Mints in the same way as the military stores are held ready for mobilisation ?

In December 1905 [1] the Secretary of State objected to a transfer from Treasury to Currency in London for the purpose of giving assistance to Treasury from Currency in India. There was at the time a difficulty in meeting the Secretary of State's Council drafts. Again in July 1906 the Secretary of State objected to the depletion of the Currency Reserve in London by purchases of silver in London, and held the view that the "possession of a large amount of gold by the Secretary of State in Council or the Government of India as part of the Paper Currency Reserve or in the Treasury balances is of considerable advantage to India as helping to maintain confidence in the permanence of the Gold Standard and in the stability of the exchange value of the rupee." [2] This marks a new use of the gold in the Paper Currency Reserve,

[1] P. 136, vol. i., Appendix to the Interim Report, etc., Cd. 7070, 1913.
[2] *Ibid.* p. 144.

i.e. its use not for the convertibility of the note issue, but as a first line of defence for the gold standard. In December 1906 the Secretary of State sold telegraphic transfers freely to convenience trade, and advised the Government of India to meet these by borrowing the silver in the Gold Standard Reserve. Government were very unwilling to borrow from the silver branch except in a serious emergency, and suggested the issue of transfers through currency. The Secretary of State replied by telegram:

> For various reasons I wish to avoid the addition of gold to the Currency Reserve in London. This would, for example, entail a diminution of the reserve of the Bank of England, and by its effect on discount rates in London would probably interfere with arrangements for renewing the debentures of guaranteed railways maturing in December.[1]

In February 1907 the Government of India addressed the Secretary of State on two questions of currency policy. They expressed regret at the decision that a part of the additional funds required to meet Council drafts should have been provided by a temporary loan from the silver portion of the Gold Standard Reserve. They would have preferred a transfer of gold in London to the Paper Currency Reserve, thus enabling rupees to be taken from the Indian portion of that reserve. The Government of India also requested the Secretary of State to reconsider his decision as to the proper use and functions of the gold which was held in London on behalf of the Paper Currency Reserve, and recommended that the currency gold in London should be freely drawn upon for the purchase of silver when required. It should be recouped as convenient from the proceeds

[1] P. 147, vol. i., Appendix to the Interim Report, etc., Cd. 7070, 1913.

of extra Council drafts. In April 1907 the Secretary of State replied [1] that

> the London money market was at that time suffering from severe stringency, and it was a matter of direct and immediate importance to India that this should not be increased, since guaranteed debenture bonds amounting to £1,795,100 were to fall due between December 31, 1906, and February 18, 1907, of which it was very desirable that £1,374,600 should be renewed. The chance of the renewals being effected on favourable terms depended on the state of the money market, and would have been prejudiced if the market had been disturbed by a transfer of gold from the reserve of the Bank of England to the Paper Currency Reserve . . . neither your resources nor the conditions affecting Indian trade could in any way be unfavourably affected. After careful consideration I came to the conclusion that the advantage of taking a loan was far more important than the one disadvantage.

The choice between "ear-marking" gold and borrowing from the Gold Standard Reserve must, the Secretary of State thought, in each case depend on circumstances. The second proposal was accepted, "subject to the qualification that it is ordinarily desirable that the combined stock of gold held in England and India (and in this connection the distinction between the two portions is of small importance) shall not be allowed to fall unduly low." [2]

The Secretary of State appointed in 1907 a Committee of five, of which Lord Inchcape was Chairman and Sir David Barbour, Sir Lionel Abrahams, Messrs.

[1] Despatch from the Secretary of State to the Government of India, No. 62, dated April 26, 1907, p. 154, vol. i., Appendix to the Interim Report, etc., Cd. 7070, 1913.

[2] P. 155, vol. i., Appendix to the Interim Report, etc., Cd. 7070, 1913, para. 10 (despatch from the Secretary of State to the Government of India).

W. R. Lawrence and F. O. Schuster, members, to consider a letter from the Government of India dated April 25, 1907, proposing the formation of a central reserve of wagons for use on railways in India. This Committee in June recommended (in an Interim Report) that £1,000,000 out of the profits on the coinage of rupees in 1907 should be devoted to the provision of additional rolling-stock and other improvements for Indian railways. The urgency of the need for railway development and the impracticability of borrowing extra funds at that date led the Committee to this conclusion. The proposal was justified on the following grounds:

> The object of the Gold Standard Reserve, to which the profit on coinage is credited, is to enable the Government of India and the Secretary of State to meet their sterling obligations in the event of a falling off in the demand for Council bills. This reserve at the present time consists of sterling securities of the market value of £12,310,629 together with a sum of six crores of rupees (equivalent to £4,000,000) which is held in silver in India to meet any sudden demand for coinage. In addition to the Gold Standard Reserve, there is a large amount of gold (£11,066,000, of which £7,705,000 is held in London and £3,361,000 in India), in the Paper Currency Reserve, which could be applied to the same object. Apart, therefore, from the six crores of rupees in silver, there is at the present moment a fund of upwards of £23,000,000 in sterling securities and gold bullion which could be drawn upon in case of necessity.[1]

Sir David Barbour, in his book on *The Standard of Value*, in support of the proposal says:

> It makes, practically, no difference whether you reduce your borrowing by using a portion of the Gold Reserve for

[1] P. 156, vol. i., Appendix to the Interim Report, etc., Cd. 7070, 1913 (despatch from the Secretary of State to the Government of India).

Capital Expenditure on Railways, or maintain your borrowing at its full amount, and invest the whole of the Gold Reserve in gold securities. In the former case you can borrow in case of need up to the amount which has been used to reduce borrowing and still be in quite as good a position as if the whole of the Gold Reserve had been invested. The reduction of the amount borrowed in London strengthened the Indian Exchange. [1]

The Secretary of State went beyond the Committee's recommendations and decided that one-half of the profits on rupee coinage should be devoted to capital expenditure on railways until the Gold Standard Reserve reached £20,000,000. When that sum was attained the whole of the profits, it seemed, was to be diverted. This was regarded in India as a financial heresy of the first class. The Government of India in a telegram and despatch were wholly opposed to any diversion until £20,000,000 was reached. The Secretary of State, in a telegram dated July 2, 1907,[2] replied that he regarded the danger of a fall in exchange as illusory, having regard to the present conditions of trade, the amount of the securities in the Gold Standard Reserve, and of the gold in the Paper Currency Reserve. Shortly after occurred the crisis of 1907-8, and the Secretary of State, in reply to the Government of India's despatch of April 1909, decided (July 1909 [3]) to reverse his decision, and the sum of £1,123,000 diverted in 1907 was all that was appropriated to capital expenditure. So long as the sterling assets of the Gold Standard Reserve and gold held in the Paper Currency Reserve

[1] *The Standard of Value*, p. 213.
[2] P. 158, vol. i., Appendix to the Interim Report, etc., Cd. 7070, 1913 (despatch from the Secretary of State to the Government of India).
[3] *Ibid.* p. 175.

were below £25,000,000, the whole of the future profits on coinage were to be added to the Gold Standard Reserve.[1]

III

The Exchange Crisis of 1907–1908

The facts leading up to the crisis in exchange were briefly these. The monsoon of 1907 was not a good one. The jute crop was poor. In August the sales of Council drafts declined and exchange fell to 16d. In September it was clear the monsoon, especially in the wheat-growing provinces, was in defect, and exchange continued to weaken. The sales of Council drafts in September were only 131 lakhs, against 340 lakhs in September 1906, and 397 lakhs in September 1905. By October it was clear that business was bound to suffer from the subnormal monsoon. An unfortunate crisis in America was superadded. On the 20th of October the Mercantile National Bank in the United States was said to be in difficulties, and by November a serious financial panic was in full swing throughout America. Gold reserves in Europe were weakened, and the Bank of England raised in self-defence the bank rate to 6 per cent on the 4th of November, and to 7 per cent on the 7th. The tightness of the London money market, combined with the falling off in the export trade, stopped a demand for Councils. On November 6 exchange dropped to 1s. $3\frac{29}{32}$d. and 30 lakhs only were sold. The Secretary of State practically withdrew for the next five

[1] P. 157, vol. i., Appendix to the Interim Report, etc., Cd. 7070, 1913 (despatch from the Secretary of State to the Government of India).

weeks from the market and exchange fell to 1s. $3\frac{13}{16}$d. on November 13.

The Financial Secretary[1] to the Government of India vividly describes the sequel of events thus:

On the 14th November 1907—I am giving the exact dates as I think they are somewhat important—we had a telegraphic intimation from Bombay that the exchange banks there were asking for large supplies of gold. Our total supply of gold at the time was extremely low, and a considerable part of it was scattered about in the treasuries up-country from which it was very difficult to collect it at short notice. We consulted commercial opinion upon the subject, and although certain of the persons whom we consulted advised us to hand out all the gold that we had, others advised that the money was simply going to be utilised in connection with the speculations which were then going on in America, and that we should be thoroughly justified in maintaining the funds under our own control and for our own purposes. On the 19th November, before the Government of India had come to any decision on the question, the same bankers applied for telegraphic transfers on London at a fixed rate. We felt at the time—and the position was somewhat different from what it is now—that if telegraphic transfers were to be given we should only do so through the Paper Currency Reserve, and consequently with the consent of the Secretary of State, whose consent, of course, in any case would have been necessary. We accordingly stated the facts to the Secretary of State in a telegram of the 19th November. On the 20th November the Secretary of State wired to us instructions to refuse gold to the banks. On the 21st of the same month, that is, on the following day, he wired out again and said that perhaps freer issues of gold might not be undesirable, even if the banks were making big profits out of them. On the 25th November, the question then being under daily discussion with the bankers in India, the Bank of Bombay advised our sending telegraphic transfers

[1] Then Sir James Meston.

at 1s. $3\frac{27}{32}$d., and the representatives of the Exchange banks the same afternoon asked us to do nothing of the kind, but to let them have gold in India. So that at that moment there seemed to us to be no very clear view of either the needs of the market or their wishes. We were perfectly prepared to let gold out if it was going to assist the position. On the 27th we again explained the whole position to the Secretary of State and told him that we had got a million of gold available for issue, and that we were prepared to issue it, but that we felt we could not promise anything in the nature of telegraphic transfers unless he was prepared to maintain the redemption of such drawings, and we did not know what his capacity in that respect was. On the following day he wired back to us asking us, if we agreed, to let the banks know that we should issue telegraphic transfers on him at 1s. $3\frac{27}{32}$d. We did so at once, and the episode was over.[1]

On November 25 exchange reached the lowest point during the crisis—1s. $3\frac{11}{16}$d. On that date the Secretary of State released £1,000,000 of the gold from the Paper Currency Reserve in London. Within five days exchange rose to 1s. $3\frac{27}{32}$d. Further sums of £1,000,000 and £500,000 were released on 6th and 18th December, and exchange was fairly steady at 1s. $3\frac{29}{32}$d. On December 7 the Exchange banks were informed that Government, in the event of a serious weakness in exchange, contemplated offering sterling exchange on London. In January a sterling loan of £5,000,000 further improved matters. The sale of Council drafts again fell off in February. On March 4 it was decided to make weekly sales in India of a certain maximum quantity of sterling bills at the fixed rate of 1s. $3\frac{29}{32}$d., instead of telegraphic transfers by tender at not less than 1s. $3\frac{27}{32}$d. as

[1] 9086, Minutes of Evidence taken before the Royal Commission on Indian Finance and Currency (vol. ii.), Cd. 7237, 1914.

previously proposed, and on March 26, 1908 these bills were first sold. On March 26 £500,000 Reverse drafts were offered and £70,000 taken up. The Secretary of State in the meantime realised some of the securities in the Gold Standard Reserve, in order to have ready money to meet the bills sold in India on him. During this time bar silver was being imported into Bombay, partly for speculative and partly for genuine trade purposes. In May exchange stood at 1s. $3\frac{7}{8}$d. and the market absorbed the full amount of transfers offered weekly. In the first two weeks of June £1,000,000 was offered, as it had been decided to give the trade all it would take for the purpose of remittances. Exchange on June 10 strengthened to 1s. $3\frac{29}{32}$d., and it was decided to continue the offer of £500,000 until 1s. $3\frac{15}{16}$d. was reached and maintained. The monsoon broke satisfactorily, and in July the period of stress and strain was over. On September 11, 1908, when exchange was sufficiently strong, Government withdrew their offer.

During the period November 1, 1907, to October 31, 1908, gold or gold assets to the extent of £18,000,000, in London and India combined, righted matters. A sum of £8,058,000 was withdrawn from the Gold Standard Reserve to meet the Reverse drafts, while a further sum of £933,749 was borrowed temporarily from the Gold Standard Reserve to strengthen the India Office balances. Apart from the transfer from the Gold Standard Reserve, the India Office kept itself in funds (1) by the transfer of £4,530,000 from the gold in the London branch of the Paper Currency Reserve (a corresponding amount in rupees being placed in the Paper Currency Reserve in India), and (2) by the issue of India bills to the extent of

£4,500,000. The main lessons which the crisis of 1907–1908 taught were: (1) the necessity of a strong reserve able to withstand even greater vicissitudes of fortune than those of 1907–1908; (2) the advantages of holding the gold and sterling reserves in London to a large, even to a predominantly large, extent; (3) the advisability of formulating in advance and of publicly announcing the policy to be followed in a crisis: it is just as important for bankers and exporters to have confidence in Government to maintain a stable exchange as it is for Government to have the resources available for a crisis; (4) the mistake of refusing to give gold in larger quantities than £10,000 to any one individual in one day for export from the Paper Currency Reserve, while permitting gold to be drained away for internal use: the views of Bagehot and of the Fowler Committee that the use of a gold reserve is to make it available for export when exchange weakens was an important lesson; and (5) gold in circulation in India was of little use for maintaining exchange.

IV

Currency Policy, 1909–1913

The experience of the years 1907 and 1908 was invaluable. It led to a long discussion between the Government of India and the Secretary of State on currency policy. This has now been made public in a series of remarkable State papers published as an Appendix to the Interim Report of the Chamberlain Commission. The hard fact which dominated the situation was the grave loss which the Gold Standard

Reserve suffered in 1908. The Government of India in their despatch of April 1, 1909,[1] pressed for a large Gold Standard Reserve, and also for its being kept in a more liquid form. They regarded £25,000,000 as the minimum of safety, apart from the gold in the Paper Currency Reserve and treasuries, and desired that the decision of July 1907 to use for capital expenditure on railways half the future profits on coinage be held in abeyance until that amount is attained. The Government of India emphasised that the Gold Standard Reserve had to be strong enough to meet not only the Secretary of State's home charges but also the remittances of private persons or banks. The Reserve, in other words, was the recognised fulcrum of the whole currency system, and its strength to Government, merchants, capitalists, and investors was of very vital importance. With this despatch were enclosed copies of protests on diverting funds from the Reserve to railways from Chambers of Commerce. The Secretary of State, replying in July[2] of the same year, decided to regard, as we have seen, £25,000,000 as the standard for the gold in the Gold Standard Reserve and Paper Currency Reserve combined. So long as the sterling resources of the Gold Standard Reserve and the gold held in the Paper Currency Reserve were below that figure, the whole of the future profits on coinage was to be added to the Reserve. Thereafter the question was liable to reconsideration in the light of existing circumstances. The Secretary of State did not agree to the proposal of a greater holding of liquid gold on account of the

[1] P. 168 of vol. i. of Appendices to the Interim Report of the Royal Commission on Indian Finance and Currency, Cd. 7070, 1913.

[2] *Ibid.* p. 175.

pecuniary disadvantage. The realisation of securities to support exchange was not, he believed, beyond the capacity of the Secretary of State in Council and his advisers. He decided to leave £1,000,000 of the Gold Standard Reserve more liquid by allowing this to be lent out for short periods on approved security to approved institutions and firms, or deposited at interest with banks of high standing. In September 1909[1] the Government of India accepted with regret the decisions in the former despatch. They showed that the currency position of the Government of India resembled that of an army exposed to sudden attack on either flanks, that provision must be made for a drain upon the silver no less than on the gold reserves. They recommended that (1) the silver branch should not be allowed to fall below six crores; (2) not less than one-half of the balances in the Currency Reserve should be in rupees; and (3) a minimum of R. 18 crores should be worked up to at the beginning of the busy season. Government also urged the desirability of holding a large amount of gold in India in the Paper Currency Reserve, at least two-thirds of the total gold held in the Paper Currency Reserve, and until this was reached no increase should be made in the amount of gold held in the Paper Currency Reserve in England.

> We should indeed prefer to hold more, but we recognise the necessity of leaving with you a liquid balance, to provide for any possible purchases of silver that may be required, and for use in the early stages of a struggle with exchange. With the sum of £1,000,000 from the Gold Standard Reserve, which you intend to keep readily available, you will thus have

[1] P. 182 of vol. i. of Appendices to the Interim Report of the Royal Commission on Indian Finance and Currency, Cd. 7070, 1913.

in London somewhat over £5,000,000 in liquid form; and, in view of your opinion on the subject of the realisation of Gold Reserve securities, you will, we trust, consider this sufficient.

It was also proposed that the Secretary of State should stay further drawings on India other than those required for ways and means purposes until the gold in the Paper Currency Reserve in India was strengthened. In this connection the procedure to be followed for building up sterling resources for the support of exchange was raised. This drew from the Secretary of State a reply in February 1910,[1] which raised some troublesome and difficult questions for future procedure. He suggested a formula for the amount of the rupee balances to be held at the beginning and the end of the busy season—a formula which the Government of India accepted in a later despatch. As regards the second recommendation of strengthening the gold in the Paper Currency Reserve in India, the Secretary of State said that this evidently rested on the view that it was more advantageous to increase the stock of gold held in India than to increase that held in London. He then compared the advantages thus:

Gold held by the Government of India may be issued for export, or to be used as currency, or to be hoarded, or to be converted into ornaments. So far as it is issued for export, it may be regarded as fully effective for the support of exchange. So far as it is used as currency, it may be regarded as available wholly or in part for supporting exchange when the rate of exchange falls as low as gold export point, since it is probable that in such conditions a part at least of the amount in

[1] P. 185 of vol. i. of Appendices to the Interim Report of the Royal Commission on Indian Finance and Currency, Cd. 7070, 1913.

circulation would be exported; but when the rate falls, not as low as to gold export point, but to a figure at which it is desirable to suspend the sale of Council bills, the gold in circulation is likely to be of little or no use for supporting exchange, at any rate immediately, since it would probably not be exported, and would obviously not be available towards defraying the home charges of the Secretary of State. Gold that is hoarded or converted into ornaments can scarcely be regarded as available for the support of exchange. On the other hand, gold held in England is available for supporting exchange not only when the rate falls to gold export point (when it can be used for meeting bills on London sold in India), but also at the earlier stage when the rate has fallen only to the point at which the suspension of Council bills is desirable (when it can be used towards defraying the home charges). The stock is not liable to be depleted by any cause corresponding to the disappearance into hoards of gold in India. When the demand for remittances is strong, gold in England is available for any purchase of silver that may become necessary.

The Secretary of State declined to commit himself to postpone any increase of the stock in England, and informed the Government of India that he was shortly to revive the arrangements which were in force in 1905, 1906, and 1907 for the purchase of gold in transit. The Secretary of State negatived the proposals regarding the sale of Council bills and transfers. He also said:

To refuse at certain times of the year to issue rupees for trade purposes, except against gold presented in India or "ear-marked" in London, might cause the periodical recurrence of stringency in the London money market, by which the Secretary of State for India in Council—owing to the frequency and magnitude of his operations in issuing and renewing loans (either direct or through guaranteed railway companies)—is peculiarly liable to be injured; and by which it is also probable that the trade of India with other countries would be seriously affected.

In February 1912[1] the Government of India replied to the Secretary of State's despatch of 1910. It was clear by this time that both authorities, while looking entirely to Indian interests, were not working always on the same lines. The Government of India wished to dribble gold through to treasuries when available, and to decide the question of silver purchases simply with reference to the rupee balances and the future prospects of trade. The key to all the differences of opinion was that the Government of India wanted more gold in India in order to introduce a gold currency, while the Secretary of State, entirely with an eye to Indian interests in London, was unwilling to allow all the gold that Government wanted. It was, in other words, a case of the gold standard *cum* gold currency *versus* the economical and sound gold exchange standard. The latter form of currency, unlike the former, had not the authoritative blessing of a Currency Commission. The time for the Chamberlain Commission appointed in the following year was already ripe. This despatch is, perhaps, the most interesting of all these State papers. The Government of India first deal with rupee reserves and then pass on to the question of stronger and more liquid gold balances. General agreement was expressed with the memorandum on rupee balances and coinage, viz. that a stock of 24 crores and 17½ crores of rupees at the beginning and end respectively of each busy season should be aimed at; the stock should ordinarily include 6 crores in the silver branch

[1] P. 195 of vol. i. of Appendices to the Interim Report of the Royal Commission on Indian Finance and Currency, Cd. 7070, 1913.

of the Gold Standard Reserve; fresh coinage should not be undertaken if the Gold Standard Reserve silver, the bulwark against hasty coinage, falls below 6 crores, provided the aggregate stock of rupees does not seem likely to be less than R. 17½ crores on March 31 and R. 24 crores on the next October 1. In regard to the gold reserves Government said:

> We should have been glad to meet the widely expressed sentiment in favour of having at least a part of our Gold Standard Reserve in India; but we recognise that, for the purpose of supporting exchange, the issue of our gold is equally, and certainly more quickly, effective in London than it would be in this country. We should also be glad to keep an ample supply of gold in our Indian currency chests, in the hope of stimulating the genuine circulation of sovereigns.

The despatch then deals with the main issues with which they began in 1909, viz. the standard amount of the Gold Standard Reserve and the form in which these assets are held. The Government of India adhered to their view for a large holding of liquid gold, strictly reserved for emergencies, and as to the former point suggested £25,000,000 as the standard figure before the diversion of coinage profits. This alone, they believed, would clear the air and inspire confidence as a conclusive proof of the determination and ability of the Government of India to maintain a stable exchange. In June 1912 the Secretary of State replied,[1] agreeing to the principles of rupee coinage and silver purchases. He also decided (1) that £25,000,000 should be the standard for the Gold Standard Reserve, and (2) that £5,000,000 in gold should be ear-marked as a deposit in the Bank

[1] P. 201 of vol. i. of Appendices to the Interim Report of the Royal Commission on Indian Finance and Currency, Cd. 7070, 1913.

of England. The subsidiary proposals regarding the silver branch of the Gold Standard Reserve were remitted back for further consideration. In this year recommendations were sent to the Secretary of State in favour of the coinage of sovereigns at the Bombay Mint. In view of difficulties with the Treasury the Secretary of State suggested the coinage in Bombay of a R. 10 piece. The matter was, however, left open pending the report of the Chamberlain Commission. In January 1913, just previous to the appointment of the Commission in April, the Secretary of State wrote that there was agreement that when Council drafts were sold beyond the extent to which they could be met from Treasury balances, they should be met from currency against an equivalent transfer in gold to the Paper Currency Reserve held at the Bank of England. When this could not be done, at any rate on a large scale, without injury to Indian interests, it might be necessary to draw upon the portion of the Gold Standard Reserve in India. As the silver held in the Gold Standard Reserve might be partly replaced by gold during a portion of the year, it should no longer be called the "silver branch of the Gold Standard Reserve" but the "Indian branch of the Gold Standard Reserve," and the branch in London the "London branch." Since the Indian branch of the Reserve might sometimes contain a considerable amount of gold, the Secretary of State placed on record that the minimum of £25,000,000 was to be exclusive of any gold held in the Gold Standard Reserve in India.

one which deserved "the appointment of a small expert committee to examine the whole question in India, and either to pronounce against the proposal or to work out in full detail a concrete scheme capable of immediate adoption."

VI

THE WAR PERIOD [1]

The Chamberlain Commission's recommendations were referred to Local Governments and Chambers of Commerce for opinion. This is part of the usual procedure in such matters. It causes a little delay. In this case delay was fortunate, as the war in the meanwhile broke out and events were moving rapidly. Government, therefore, were able to postpone action on the report as a whole until they had gathered experience as to the working of the gold exchange standard under the most unfavourable circumstances. Some of the recommendations, however, notably those regarding the action to be taken in a falling exchange, the abolition of silver holdings in the Gold Standard Reserve, and the increase of facilities for the encashment of notes, were carried into effect shortly after the outbreak of war. With the rise in exchange from August 1917 a new set of conditions undreamt of even by the pundits of the Chamberlain Commission took place. Silver soared from $23\frac{3}{4}$d. in October 1915 to 58d. on May 10, 1919. It was found necessary on this account to raise exchange, *i.e.* the gold price in London of rupees in India, to correspond at least with their actual cost. This was done

[1] See Chapter III. pp. 86-90.

only on three occasions, viz. on August 29, 1917, April 12, 1918, and May 13, 1919, when exchange was raised from 1s. 4¼d. to 1s. 5d., then to 1s. 6d., and subsequently to 1s. 8d. for telegraphic transfers. It was impossible for the Secretary of State, as we have seen in Chapter III., to sell rupees in India below cost, because this would put a premium on their being melted down and exported as bullion. It was, therefore, necessary to raise their gold price, *i.e.* the price at which the Secretary of State sold his drafts on India was raised. In plain English, exchange rose.

The average rate of exchange and its steadiness are well brought out if quinquennial averages are employed:

(i.) Quinquennial Average Rates of Exchange

	Pence per rupee.	Index No.
1900–1904 . . .	16·013	100
1905–1909 . . .	16·033	100
1910–1914 . . .	16·062	101
1915–1919 . . .	16·463	103

(ii.) Yearly Average and Monthly Rates

	Pence per rupee.	Index No.
1913–1914 . . .	16·070	101
1914–1915 . . .	16·004	100
1915–1916 . . .	16·087	100
1916–1917 . . .	16·148	101
1917–1918 . . .	16·532	103
1918–1919 . . .	17·544	109
April 1919 . . .	16·906	106
May 1919 . . .	18·553	116
June 1919 . . .	19·540 *	122

* Provisional.

These average rates are the rates obtained by the Secretary of State for telegraphic transfers and Council bills over a twelvemonth and in the quarter ending June 1919. They do not refer merely to telegraphic transfers. When we speak of exchange rising to 1s. 8d. or any other figure we mean the rate for telegraphic transfers, but in the above table bills as well as transfers are included. These average rates are calculated by reducing the total amount received by the Secretary of State for these Council drafts to pence (*i.e.* × 240) and dividing by the total rupees to be paid in India on account of these drawings. These average rates are published weekly in the " K " statement of the Controller of Currency. The main lesson to be learned as one's eye moves down these tables above and the appended tables is that exchange has been exceedingly steady as compared with the fluctuations in the price of silver. Between April 1900 and June 1919 the price of silver increased by as much as 95 per cent. The average rate of exchange, however, fluctuated in the same period only by 22 per cent. Exchange is now, as Pope would say, " the sad burden of some merry song."

The events of the war years have necessitated an examination of currency problems that did not face the Chamberlain Commission in 1914. The experience of the silver crisis of 1918, the gold value of the rupee in the future working of the gold exchange standard, the strength of our gold reserves in London and our rupee reserves in this country, the future of the paper currency, India's demands for gold and silver in the settlement of favourable trade balances, these and similar questions are now of first importance in currency policy. The Secretary of State, therefore, decided to appoint an expert committee to investigate the problems of Indian exchange and currency and to make recommendations. The Chairman of the Committee is Sir H. Babington Smith, private secretary to Lord Elgin when Viceroy (1894–99), a member of the Financial Commission to the United States, 1915, and assistant commissioner to Lord Reading in the United States, 1918. The other members include Lord Chalmers of H.M. Treasury and a member of the Chamberlain Commission of 1913; Sir James Brunyate, a former financial secretary to the Government of India, the representative of the India Office at the negotiations in Washington in the silver crisis of 1918, and member of the Secretary of State's Council; Sir Marshall Reid, an ex-President of the Bombay Chamber of Commerce and member of the Secretary of State's Council; Mr. F. C. Goodenough, Chairman of Barclay's Bank and member of the Secretary of State's Council; Sir C. Needham of Manchester; Sir Charles Addis, Manager of the Hongkong and Shanghai Bank, London, and a high authority on banking; Mr. D. M. Dalal, a leading bullion broker and financial authority in Bombay; Sir Bernard Hunter, Secretary and Treasurer of the Bank of Madras; Mr. T. McMorran, formerly in business in Calcutta, now in London; and Mr. M. M. S. Gubbay, Controller of Currency. The Committee is now (July 1919) sitting in London, and the Report is expected to be published before March 1920.

The terms of reference are: To examine the effect of the war on the Indian Exchange and Currency system and practice and upon the position of the

Indian note issue, and to consider whether, in the light of this experience and of possible future variations in the price of silver, modifications of the system or practice may be required; to make recommendations as to such modifications, and generally as to the policy that should be pursued with a view to meeting the requirements of trade, to maintain a satisfactory monetary circulation, and to ensure a stable gold exchange standard.

VII

Summary

The main features of the period are best brought out by—

(*a*) Dividing the period into quinquennial groups.

(*b*) Analysing the distinctive features of the war period, especially since 1917, in order to bring out the remarkable happenings that have taken place during the war, which has left in its train many serious problems of finance.

The first point that deserves notice is the rise in prices, which markedly advanced since 1905. In the tables of prices that have been appended it will be seen that since 1900 the general rise in prices has been 94 per cent in 1918, exports have risen in price by 60 per cent, and imports by 201 per cent. The weighted index number shows a rise of 50 per cent. Since the outbreak of the war the rise has been 57 per cent (unweighted) and 18 per cent (weighted).[1]

[1] The rise in the weighted index number differs considerably in this case from the unweighted, as the weights are given almost entirely to articles exported, chiefly food-grains, by far the main item in the ordinary Indian budget. The large rise in the prices of imports, therefore, is not allowed for in the weighted average.

The rise during the years 1914 and 1915 was not very marked, but from 1916 onwards the rise is striking:

GENERAL PRICES

	Unweighted.	Weighted.
Yearly average (1900–1904) . .	100	100
Do. (1905–1909) . .	120	122
Do. (1910–1914) . .	127	130
Do. (1914–1918) . .	170	146
1914	138	143
1915	143	139
1916	173	142
1917	184	142
1918	211	165

The Appreciation of Silver [1]

The rise in the price of silver since 1917 raises the question as to whether the rise is in reality a rise in the gold price of silver relatively to commodities, or whether this rise is simply a rise of commodity prices in general, *i.e.* an expression not of an appreciation of silver, but rather of a depreciation of gold in relation to commodities. The value of silver is, as every one knows, best expressed by its purchasing power not over gold alone, but over a wide group of commodities, just as the value of gold is similarly expressed not over one commodity like silver, but over a large number of commodities. For this purpose recourse was, as usual, had to index numbers. The general conclusions are—(1) that the gold price of silver remained low until 1915; (2) that in both periods, 1893 to 1900 and 1900 to 1915, the decline in the gold price of silver was an expression of the

[1] See Chapter V. p. 153.

depreciation of silver relatively to commodities, rather than of an appreciation of gold—it will be remembered that in the period 1873 to 1892 the decline was chiefly an expression of an appreciation of gold, not of a depreciation of silver, relatively to commodities; (3) since 1916 the rise in the gold price of silver has been an expression of the appreciation of silver rather than a depreciation of gold relatively to commodities.

THE PURCHASING POWER OVER COMMODITIES *

Period.	Gold price of silver.	Gold.	Silver.
1873–1892 .	Declined 33 %	Appreciated 63 %	Appreciated 10 %
1893–1900 .	Do. 22 %	Depreciated 9 %	Depreciated 29 %
1901–1909 .	Do. 13 %	Do. 6 %	Do. 17 %
1910–1914 .	Advanced 5 %	Do. 7 %	Do. 5 %
1915–1918 .	Do. 100 %	Do. 44 %	Appreciated 12 %

* From Reciprocals of Statist's Index Number. Cf. Kemmerer (p. 18), *Modern Currency Problems*. The Macmillan Company.

Circulation, 1900–1919

We now turn to the study of the provision of currency between 1900 and 1919, with special reference to the war period. In the following paragraphs we shall use currency in its wider sense, *i.e.* to include cheques, in fact anything in the shape of coins or paper instruments ordinarily accepted in payment of goods and services. This definition includes coins, currency notes, and cheques, but it excludes bills of exchange or hundis, since these are a specialised means of payment used by banks and merchants and not by the ordinary public. It is necessary, as we shall see, to make clear the definition of the term in which "currency" is used in this connection, and, having done so, to stick tenaciously to the definition.

The main features of the period are summed up in the following table :

AVERAGE GROWTH IN CIRCULATION IN QUINQUENNIAL PERIODS
(In crores of rupees.)

	1900–4.	1905–9.	1910–14.	1915–19.
Rupee circulation (active) . .	138	174	186	218
Note circulation (gross) . .	33	45	61	94
Do. (net) . . .	29	41	54	90
Do. (active) . .	24	33	44	76
Total rupee and note (active) circulation	162	207	230	294
Cheque currency (Bank clearings)	232	378	552	917 *
Total of rupee, note, and cheque currency	394	585	782	1211

* Four years' average, as the 1919 figure is not yet available. See table, No. 27, appended on p. 473.

These figures when converted into index numbers are compared below with the growth of business index numbers in order to arrive at the *relative* growth of circulation.

INDEX NUMBERS OF THE RELATIVE GROWTH IN CIRCULATION
(Quinquennial averages.)

	1900–4.	1905–9.	1910–14.	1915–19.
Rupee circulation (active) . .	100	126	135	158
Note circulation (gross). . .	100	136	185	285
Do. (net) . . .	100	141	186	310
Do. (active) . .	100	137	183	317
Total rupee and note (active) circulation	100	128	142	181
Cheque currency (Bank clearings)	100	163	238	395
Total active rupee, active note, and cheque currency . . .	100	148	198	307
Growth of business . . .	100	144	204	249

The growth of trade requirements has been reached by a selection of certain statistics which are typical of Indian business activity from year to year. As far as possible the indices, 22 in number, have been carefully selected, and, wherever possible, quantity has been used. Variations due to changes in the value of the monetary unit have thereby been eliminated as far as possible. The table is given in the Appendix.

The conclusions to be drawn from these summary tables and from the appended tables are:

(1) The active rupee circulation has grown less rapidly than the growth of business in all three quinquennial periods.

(2) The gross, net, and active circulation of notes has also grown less rapidly, *except during the war period*. By "net circulation" is, of course, meant the total value of the notes excluding the value of those held in the Reserve treasuries. The "active circulation" further excludes the value of (1) notes held in all other Government treasuries, and (2) notes held in the head offices of the Presidency banks.

(3) The total active circulation of rupees and notes taken together, even since the war, increased less rapidly than the growth of business.

(4) The average growth in cheque currency was greater in all quinquennial periods than the growth of business, *and especially so in the war period.*

(5) The total of active rupee and active note circulation and cheque currency more or less kept pace with the growth of business, except since the war, when it outstripped this growth in business to a marked extent. Hence, as in other countries, there has been a certain amount of inflation.

The results for the war period are of special interest.

GROWTH IN CIRCULATION *
(In crores of rupees.)

	1914.	1915.	1916.	1917.	1918.	1919.
Rupee circulation (active) . .	187	204	212	227	219	228
Note circulation † (gross) . .	66	62	68	86	100	153
Do. (net) . .	59	56	64	82	98	150
Do. (active) .	50	44	53	67	84	134
Total rupee and note (active) circulation	237	248	265	294	303	362
Cheque currency (Bank clearings)	538	563	809	901	1396	..
Total rupee, note, and cheque currency	775	811	1074	1195	1699	..

* For per capita averages see table on p. 462.
† On March 31 in each year.

The index numbers,[1] including the index number of the growth of business, were :

	1914.	1915.	1916.	1917.	1918.	1919.
Rupee circulation (active) .	101	110	114	122	118	123
Note circulation (gross) . .	107	100	110	139	162	248
Do. (net) . .	110	105	120	153	183	280
Do. (active) . .	113	100	120	152	191	304
Total rupee and note (active) circulation	103	108	115	128	132	157
Cheque currency (Bank clearings)	92	96	138	154	239	*
Total rupee, note, and cheque currency	95	100	132	147	209	*
Growth of business . . .	113	112	117	124	126	130

* Not available until after December 31, 1919.

This shows that in war time—

(1) The active rupee circulation has kept pace with the growth of business.

(2) The active note circulation at first grew less rapidly than the growth of business, but from 1916 onwards increased with greater rapidity.

(3) The active rupee and note circulation taken together moved in harmony with the growth of busi-

[1] Average of the figures for 1911–13 being taken as 100.

ness up to 1916. *Since that date the active rupee and note circulation has outstripped the growth of business.*

(4) Cheque currency was more rapid in its growth than that of business except in 1914 and 1915.

(5) The total of the rupee and note (active) circulation and cheque currency was greater than the growth of business from 1916 onwards.

This idea of a supply of the circulating medium in excess of the growth of business is usually known as inflation. When at a given price level a country's circulating media, cash, coin and notes, and deposit currency, increase relatively to trade needs, inflation is said to occur. We shall deal with this in greater detail in Chapter XV. in discussing the phenomenal growth in deposit currency in this country. In war time inflation has "cut much ice," but it is usually done so gradually that its effect is not observed until too late. As Sir James Meston, in his speech in the Legislative Council on the Financial Statement for 1919–20, said: "Although practically every belligerent country has had to finance itself in some measure by an abnormal recourse to the printing press, warnings are now being heard on all sides about its serious consequences. Here in India, if our responsibilities for meeting war expenditure forced us to err in this direction, we certainly have sinned against the light to a very much smaller extent than other countries. The time, however, is now coming when we shall no longer be able to plead, as an excuse for borrowing from our Currency Reserve, the exigencies of war; and we ought to try to retire at least that portion of our paper which is represented by our own Treasury bills. Some of us would probably like to go further and reduce the outstanding note circulation until we hear no more of forced discounts in the country-side and their hardships on the people ; but it is not easy to see how this adjustment can be effected until silver comes out of hoards and resumes its duty as a circulating medium."

Indian finances have not suffered from a wholesale increase in unproductive debt as has been the case with many other belligerents. Our national debt on March 31, 1918, was £336,500,000 as against £274,000,000 on March 31, 1914, the pre-war year, an increase of 23 per cent. On the former date, however, unproductive debt was 16 per cent of the whole as against 5 per cent in the pre-war year. These suggestive statistics are as follows :

(Millions of £ sterling.)

	Ordinary debt, including floating debt.	Productive public works debt.			Grand total of debt (columns 1 and 4).
		Railways.	Irrigation.	Total.	
	1.	2.	3.	4.	5.
On March 31, 1913	25·0	211·8	37·6	249·4	274·4
Do. 1914	12·8	222·0	39·4	261·4	274·2
Do. 1915	9·2 *	233·2	41·1	274·3	283·5
Do. 1916	9·0 †	234·4	42·4	276·8	285·8
Do. 1917	7·0 ‡	235·7	43·3	279·0	286·0
Do. 1918	53·4 §	239·1	44·0	283·1	336·5

* Excludes £7·3 millions on account of temporary loans from the Gold Standard Reserve and the Gwalior Durbar.
† Excludes £4·3 millions on account of temporary loans from the Gold Standard Reserve and the Gwalior Durbar.
‡ Excludes £3 millions on account of temporary loans from the Gwalior Durbar.
§ Excludes £2·7 millions on account of temporary loan from the Bank of Bombay, and £64·0 millions on account of the liability for British Government War Loan 1929–47 taken over as part of the financial contribution to the war.

This table includes all floating debt (temporary loans) except temporary loans from the Gold Standard Reserve, 1914–15 and 1915–16 ; from the Gwalior Durbar, 1914–15 to 1916–17 ; and from the Bank of

Bombay, 1917–18. It also excludes the liability for British Government 5 per cent War Loan 1929–47, taken over as India's financial contribution to the war (1917–18). These liabilities have not been treated as a part of the registered debt of India, nor have they been included in the half-yearly returns of loans presented to Parliament. It is interesting to note that while the total debt, productive and unproductive, on March 31, 1918, amounts to £336·5 millions, the value of the State Railways and Irrigation Works alone (capitalised at 25 years' purchase) is estimated at £584,000,000.

To sum up. The data on the growth of the circulating medium and the growth of business are of considerable interest in the light of the movement in prices in the war period. We should have expected prices, other things being equal, to have risen as they have done according to the generally accepted quantity theory of money, on which Doctor Johnson made the pertinent remark when he was told that in Skye twenty eggs might be purchased for a penny: "Sir, I do not gather from this that eggs are plenty in your miserable island, but that pence are few."

CHAPTER VIII

THE PAPER CURRENCY

I

Note Circulation before 1862

Prior to the passing of Act XIX. of 1861 (which took effect from March 1, 1862) there was no Government issue of currency notes. The issue of notes belonged to private banks. The circulation of these notes was practically confined to the three Presidency towns of Calcutta, Bombay, and Madras. The notes were not legal tender. They were issued by what were then known as the "Chartered" banks (*i.e.* the three Presidency banks), and by other banks, many of which were "agency houses," that did a banking in addition to a mercantile business. The Bank of Hindustan, founded in Calcutta about 1770 by Messrs. Alexander and Co., had a circulation of notes confined to Calcutta and its neighbourhood. The notes of this Bank were received in payment at all places in Calcutta, except the Treasury itself. The issues of this Bank sometimes rose to R. 20 or R. 25 lakhs, while at other times they fell to R. 2 or R. 3 lakhs. In 1819 a severe run took place when, in consequence of some forgeries, a notice was issued by the Bank pointing out the mode of distinguishing genuine from forged notes. A rumour spread in the bazaar that unless the notes were brought in by a certain day they would not be paid. About 18 lakhs of rupees in notes were cashed without difficulty. In January 1829 another run was made on the Bank consequent on the failure of Messrs. Palmer and Co., and a panic led to the presentation for payment of about R. 20 lakhs, a demand that was again promptly met. The Bengal Bank (not to be confused with the Bank of Bengal) had a limited note circulation from 1790 until it ceased to do business some time before 1800. The Commercial Bank, which began business in 1819, had an average circulation of about R. 16 lakhs, but in consequence of the extensive failures in Calcutta in 1828 it contracted its circulation, and its operations gradually narrowed until it closed its doors in 1833 when the failure of Messrs. Mackintosh and Co., the partners of the institution, took place. The Calcutta Bank, established in 1824, had an average circulation of about R. 20 lakhs. Its operations as a bank of issue ceased in 1829 before the failure of Messrs. Palmer and Co., the founders of the Bank. In 1834 the Bank of Bengal refused to receive the notes of the Union Bank (1829-1848) or any of the new rival banks that sprang up. The notes of the Union Bank never exceeded a few lakhs of rupees.

The Charter granted to the Bank of Bengal in 1809 gave the Directors power to issue notes of not less than R. 10 and not more than R. 10,000. No limitation was put on the total amount of issue, except as covered by the two general limitations made in the Charter to the effect that (1) the total liabilities of the Bank should not exceed the Bank's capital of R. 50 lakhs, and (2) the actual cash in hand should not fall below one-third of the outstanding claims payable on demand. On the renewal of the Charter in 1823 the Directors were given the power to extend the note issue up to a maximum of four times the Bank's capital, which then stood at half a crore. The minimum cash reserve was reduced to one-fourth of the outstanding notes. The Charter of 1839 (Act VI. of that year) fixed the note circulation at two crores instead of at four times the Bank's capital. This limitation was of little importance because the circulation seldom exceeded R. 160 lakhs, and only once did it exceed R. 2 crores. In 1860, as a result of the demands on the Bank for accommodation for the Government 5½ per cent Loan of that year, the note issue rose to R. 275 lakhs. Government passed a temporary Act to legalise this. The Bank agreed to pay 5 per cent per annum on R. 75 lakhs, the over-issue, these excess notes being almost entirely held in the public Treasury, and representing really an advance from Government to the Bank.

The notes of the Bank of Bengal were not legal tender, and owing to the fact that there was difficulty in converting the notes at a distance from Calcutta, the circulation was far from perfect. The Bank preferred to devote its energies to the profits of an internal exchange business rather than to the profits of an active note circulation. At first Government accepted the Bank's notes at Calcutta, and afterwards at treasuries in the Lower Provinces of Bengal. The maximum allowed to be accumulated in treasuries was a total of R. 50 lakhs, and any excess over this amount was presented at the Bank for immediate payment. In 1836 the Bank of Bengal asked Government to accept its notes at treasuries in the North-Western Provinces in connection with a proposal to open a branch in Allahabad. It would seem, therefore, that these regulations as to the encashment of notes were in force up to 1836, and were applicable to Bengal only. The reply to this proposal of the Bank is interesting. Unless the Bank made its own arrangements for cashing the notes locally, Government would not consent to the proposal, and they added: "The Bank is no doubt aware that any existing available surplus of the North-Western Provinces is drawn down to Calcutta by bills of exchange granted on terms affording a profit to the Government." While Government was willing to receive notes in a limited area, they did not cash them in the Lower Provinces or reissue them except when "demanded by those willing to receive them." According to a table[1] in the Report of the Commission to inquire into the operation of Act XIX. of 1861, the circulation of the Bank of Bengal in March 1862 was R. 137 lakhs, of which R. 6 lakhs were in R. 10 notes, R. 11 lakhs in R. 25, R. 14 lakhs in R. 50, R. 32 lakhs in R. 100, R. 1 lakh in R. 250, R. 25 lakhs in R. 500, and R. 47 lakhs in R. 1000. The circulation of R. 15, R. 16, and R. 20 notes was very small.

The Bank of Bombay, established in 1840, had also a note circulation limited by Act III. of 1840 to R. 2 crores. The highest point of its issue was R. 128 lakhs. In 1843 the Bank of Madras was allowed by Act IX. of that year to issue notes up to a maximum of one crore of rupees, but the note issue was always much below this limit. The average amount of the

[1] Report of the Commission to inquire into the Operation of Act XIX. of 1861 (vol. ii., Superintendent, Government Printing, Calcutta, 1867).

circulation was about R. 17 lakhs. The highest amount reached was R. 27½ lakhs in 1860.

Thus we see that previous to the introduction of a Government Paper Currency the authorised issues of the three Presidency banks were R. 5 crores, against which one-fourth was to be held in specie. The lowest amount to which the issues were reduced since the fixing of these maxima was about R. 2 crores during the Mutiny. From March 1, 1862, no banks in India have been allowed to issue notes.

II

The Government Paper Currency

In 1837 Mr. J. A. Dorin, C.S. (previously Secretary and then an official Director of the Bank of Bengal), in a minute dealing with a proposed branch of the Bank of Bengal in the United Provinces, outlined a system of circles with notes encashable at circle offices and at the Bank's head office in Calcutta. This is, as far as can be traced, the first anticipation of the Government scheme of 1862. It was clear, however, in the 'thirties and 'forties of last century, to those that put on their thinking cap, that the shamefully belated task of a sound paper currency system could only be undertaken in India by Government and not by private agency. The ideal scheme would, perhaps, have been for the Presidency banks to establish branches at several of the more considerable towns, on the understanding that such notes should be made payable at those places of issue. But as pointed out by Mr. C. H. Lushington, Financial Secretary, in a note dated February 11, 1859, there was the great, if not the insuperable, obstacle to the establishment of such banks in the uncertainty of their paying a dividend such as would make it worth the while of the proprietors to apply for an extension of capital. The experience of the Peel Act of 1844 in England had been carefully watched by the responsible authorities in India. By 1859 there was no question of deciding between a Government and a private paper currency system. In April of that year the Government of India forwarded to the Secretary of State the memorandum of Mr. Lushington in which a Government paper currency was suggested. The notes were to be convertible at a few large treasuries, conveniently situated in circles of country from 300 to 400 miles in diameter; the lowest denomination of such notes was to be R. 10. Mr. Lushington did not suggest a note of a smaller denomination, because, on the analogy of the £1 note, small notes would be expensive and would drive metallic currency out of circulation: "On the occasion of panics, the consequences are most disastrous, from the paper securities ceasing to be negotiable and from the supply of gold being altogether unequal to the demand. The same results would be likely to follow the introduction of a note of less than 10 rupees in this country." The Secretary of State replied that Her Majesty's Government were not disposed to direct the introduction of a paper currency at the moment. The Secretary of State, however, said that he was prepared to give every encouragement to a well-considered scheme for the purpose.

At this juncture, in the cold weather of 1859, the Right Hon. James Wilson arrived in India, and the question of the introduction of a paper currency was one, among several others, of his great financial reforms. As Secretary to the Treasury in London he had occasion to watch and superintend the working of a paper currency not only in the United Kingdom but in the Colonies. He was familiar in a great degree with the proposals of Liverpool, Huskisson, Ricardo, Tooke, Peel, and Overstone. He had also the advantage of being a member of the Committee on Commercial Distress (1848), the Bank Charter Committee of 1857, and of the Committee of 1858. Sir Charles Wood, the then Secretary of State for India, was also a close student of the subject, having presided over the Committee on Banks of Issue in 1840 and 1841. There were two schools of opinion in England at this period—one known as the Birmingham School, which advocated an inconvertible paper currency; the other including an immense majority of practical men who advocated a paper currency only on condition of its being at all times convertible. The former of these main schools was a small one. Wilson was a powerful enemy of this school, holding, as he did, that all devices for aiding industry by issuing inconvertible notes were foolish and mischievous. Industry could, of course, only be aided by additional capital in the form of new machinery and raw material. An addition to a paper currency was in Wilson's opinion as useless to aid deficient capital as it was to feed a hungry population. The latter school subdivided itself into those who favoured the currency principle so called, and those who supported the banking principle. The former, which included Sir Robert Peel, Lord Overstone, Sir Charles Wood, and Wilson's successor, Mr. Laing, held that to the condition of convertibility must be added that of absolute identity with the metallic circulation which it displaces; that, in other words, all paper issues must represent actual coin or bullion in the vaults of the Bank or Treasury, beyond a fixed issue, strictly limited within the bounds to which experience had shown that no conceivable contraction of the currency could approach. The other, among whom Wilson was one of the most distinguished, held that this restriction was quite unnecessary. A paper currency, so long as it was convertible, could never be in excess, and convertibility could always be secured by enacting that certain reserves in cash, or good securities, must always be held against issues, either by the banks which made these issues, or by the State which might assume the functions of a great National Bank of Issue. Wilson's currency scheme for India was an attempt to give practical effect to this on a comprehensive scale. Wilson saw that an inelastic note issue such as that provided by the Peel Act of 1844 was unsuitable to India. As Sir Robert Peel himself admitted, the principles and methods of the Act of 1844 were in opposition to "the high authority of Adam Smith and Ricardo." This currency principle (that it is essential that the notes circulating in a country should always conform in amount to the metallic circulation which they represent, and that while convertibility provides the means of taking out of circulation a quantity of paper already in excess it imposes a very imperfect check on putting too much paper into circulation) is a doctrine that never has and never can find general acceptance with economists. Wilson saw that convertibility was an ample and complete safeguard against over-issue, since the mere fact that notes would be immediately paid on demand when redundant would be sufficient to retire them immediately on their becoming redundant. Bagehot summed up Wilson's views admirably in his Memoir when he said:

> He concurred in the aim of Sir R. Peel, but objected to his procedure. He wished to secure the convertibility of the bank-note. He believed that the Act of 1844 indirectly induced the Bank Directors to keep more bullion than they would keep otherwise, and in so far he thought it beneficial; but he also thought that the advantages obtained by it were purchased at a needless price; that they might have been obtained much more cheaply; that the machinery of the Act aggravated every panic; that it tended to fix the attention of the public on bank-notes, and so fostered the mischievous delusion that the augmented issue of paper currency would strengthen industry; that it neglected to take account of other forms of credit which are equally important with bank-notes; that "for one week in ten years"—the week of panic—it created needless and intense apprehension, and so tended to cause the ruin of some solvent commercial men. In brief, though he fully believed the professed object of Sir R. Peel—the convertibility of the bank-note—to be beneficial and inestimable, he as fully believed the special means selected by him to be inconvenient and pernicious.

We have quoted Bagehot with the express purpose of showing Wilson's large ideas on paper currency, and how India, had the heavy hand of death not fallen on her Finance Minister when it did, might have been given a far more elastic paper currency than that provided by the Act of 1861. We have before us the minutes of Wilson, Mr. Laing, and the despatches that passed between the Government of India and the Secretary of State. Wilson recommended the inauguration of a system under which there would be a large paper circulation (1) convertible by the retaining of one-third of the amount in specie, and (2) affording to Government the large profit of a circulation of notes of legal tender issued to a large degree against securities bearing interest. Wilson's proposals were:

(1) The issue of notes which should be legal tender.

(2) The holding of not less than one-third of the reserve in coin to secure "the immediate convertibility of any probable proportion of notes likely to be presented," and to invest the remainder in Government securities to secure the ultimate payment of the whole.

(3) The division of India into a large number of circles (forty or fifty, it is said, in number). The notes would be payable at the option of the holder either at the office of issue or at the Presidency town of the Presidency in which the circle of issue was situated.

(4) The creation of a large Department connected with the Mint and with its officers in every circle. This Department would be entirely dissociated from banks and from the regular executive Government. The officers were to be removable by the Secretary of State, and their duties were to be strictly defined by an Act of the Legislature.

(5) The denomination of the notes were to be 5, 10, 20, 50, 100, and 500 rupees. Wilson suggested R. 5 as the minimum, because in some of the British colonies, *e.g.* in Newfoundland, Mauritius, and Ceylon, and in some German States, small notes had been a safe and convenient circulation.

At the end of this minute he placed on record that this proposal for a paper currency should be considered altogether apart from and independent of the creation of a large banking corporation, adequate to the requirements of the trade of the country, and through which all the business of Government may be transacted, as that of the English Government is with the Bank of England. The creation of a Government Issue Department was not to be considered in any way inconsistent with the establishment of such a banking company. It is of special interest to study these recommendations in the light of subsequent experience, especially since the outbreak of war, and to imagine, had these proposals been carried into effect, what would have been the extent of our paper currency system to-day. The whole scheme is on a par with the other work of this very distinguished man—the greatest of India's Financial Members in the nineteenth century.

From what has already been said, the acquiescence of Sir Charles Wood was not expected to be a complete acquiescence. And indeed it was not. In the despatch to the Government of India, dated March 26, 1860, some troublesome issues were raised. After stating the general concurrence in the outline of the plan submitted, the despatch laid down that

> the sound principle for regulating the issue of a paper circulation is that which was enforced on the Bank of England by the Act of 1844, *i.e.* that the amount of notes issued on Government securities should be maintained at a fixed sum, within the limit of the smallest amount which experience has proved to be necessary for the monetary transactions of the country ; and that any further amount of notes should be issued on coin or bullion, and should vary with the amount of the reserve of specie in the bank, according to the wants and demands of the public. (Para. 13.)

The Secretary of State presumed that arrangements were to be made with the banks for the withdrawal of their notes from circulation, and their circulation might be taken as the minimum note circulation and notes to that amount issued, securities to the same amount being held by the Currency Commissioners. All notes beyond this amount were to be issued only in exchange for coin or bullion held in reserve by the Currency Commissioners. Mr. Laing, who came out to India to take over the Financial Membership on Wilson's death, minuted pointedly and briefly thus:

> I cannot but express my entire concurrence with the view of Sir C. Wood. There is no such thing as a *profit* in transactions of this nature, without a corresponding *risk*. The legitimate function of a State is to provide a safe, convenient, and certain form of currency; and if it goes beyond this, and grasps at the profit of a private banker, by trading on its credit, and issuing promises to pay, in the hope of being able to redeem those promises by the sale of securities, it incurs a serious liability.

Mr. Laing also objected to a multiplicity of circles, as this, he imagined, would force a traveller from Calcutta to Peshawar to change his notes five or six times in the journey (probably at a discount) for notes of a new circle, and this would force him to continue to carry a bag of rupees. Mr. Laing, however, appears to overlook the advantages of convertibility at many places (treasuries) in everyday or *local* transactions, and prefers to take as a criticism of this part of Wilson's scheme only the unhappy traveller who journeys from, say, Calcutta to Peshawar.

The Bill of 1861, which became law as Act XIX. of 1861, provided for: (1) The issue of a paper currency through a Government Department by means of notes payable to bearer on demand. This State paper currency took the place, as we have seen, of the issue of banks with effect from March 1, 1862.

(2) The lowest denomination was to be R. 10, not R. 5 as suggested by Wilson and the Secretary of State. (3) The number of circles into which India was to be divided was three or more, each containing one city to be the place of issue of the notes of the circle. The Presidency towns were to be the places of issue of three of the circles and were to be in charge of the Head Commissioner (at Calcutta) and two Commissioners (at Madras and Bombay). Deputy Commissioners were to be in charge of other circles and subordinate to the Head Commissioner or Commissioner. Notes were to issue either from the headquarters of a circle or from an agency in the circle, and were to be convertible at either the office at the headquarters of the circle of issue or the Paper Currency Office at the Presidency town of the Presidency in which the circle of issue was situated. The notes were issuable against current silver coin of the Government of India or standard silver bullion or foreign silver coin at the rate of R. 979 per 1000 tolas of standard silver fit for coinage. Provision was also made for the issue, under notification, of notes against gold coin of the Government of India or against foreign gold coin or gold bullion. (4) A reserve of bullion or coin and also of an amount not exceeding 4 crores of rupees was to be invested in Government securities. An abstract of the Reserve was to be made up monthly in Calcutta, and published as soon as possible in the Gazettes of Calcutta, Madras, and Bombay. The interest on securities was to be credited to general revenues under "Profits of Note Circulation." Notes were to be legal tender in their circles for all payments except by Government at offices and agencies of issue.

Thus a Government monopoly of note issue, avowedly on the lines of the English Bank Charter Act of 1844, was established in India. In its main features it remained unaltered for the long space of nearly fifty years. Notes in the form of promissory notes of the Government of India, payable in rupees to bearer on demand, were issued, and a metallic reserve was under the Act of 1861 kept against the whole of the notes issued, with the exception of such amount not exceeding 4 crores of rupees as might be fixed by the Governor-General in Council with the consent of the Secretary of State. This amount was to be invested in Government securities. Mr. Laing employed the agency of the Presidency banks to promote the circulation of the new paper currency. He believed that this would render unnecessary the increase of circles of issue. Act XIX. of 1861 empowered Government "to make such arrangements with any persons, banks, or bodies corporate either at Calcutta, Madras, and Bombay, or elsewhere, as may be required to regulate and facilitate the issue and payment of the notes," and to establish in any circle of issue "agencies of issue in connection with a bank, or otherwise." By a separate Act (No. XXIV. of 1861) the Presidency banks were authorised to make agreements with the Secretary of State "for superintending, managing, and becoming agents for the issue, payment, and exchange of promissory notes of the Government of India, and for the carrying on the business of an agency of issue." The Secretary of State was not in love with the proposal of making the banks currency agents. "I can quite understand," he wrote in a despatch to the Government of India dated May 2, 1861, "that the notes may be more readily brought into circulation through the medium of bankers, or indeed of other traders. . . . I object, however, to any banker or trader being, *at any centre of issue*, the only place where coin can be obtained for notes, or notes for coin. Such an arrangement is quite inconsistent with the intention and scope of an Act to provide for a Government paper circulation in India." The Government of India, on the strength of this qualification of the prohibition, decided to enter into agreements with the banks, and reported to this effect in a despatch to the Secretary of State dated February 10, 1862. The Secretary of State in a reply dated April 8 objected in principle to these, but agreed not to disturb them. Another explanatory despatch was sent on May 21, 1862, explaining why the banks were to be remunerated for issuing and cashing Government notes at their head offices by a commission of ¾ per cent per annum on the daily average amount of Government currency notes outstanding and in circulation through the agency of banks. In September 1862 the Secretary of State ordered the separation of the Paper Currency Department from all connection with the banks so far as might be consistent with actual engagements. He pointed out: "It will be for the interest of the banks to use the notes so as to dispense with the encumbrance of large weights of silver, and with that object to obtain them from the Commissioners of Issue and keep them in circulation by cashing them in small amounts." Sir Charles Trevelyan (who succeeded Mr. Laing) showed that it was contrary to the interests of the banks freely to cash notes at their branches. Even the Calcutta circle notes were charily cashed by the branches of the Bank of Bengal, and were altogether refused by the Bank's branches if apparently employed solely for purposes of remittance. The Finance Member minuted that this might be prudent banking, but it was not in the interests of the paper currency that the agents should set the example of refusing to cash Government notes. "The Bank of Bengal is obviously acting in two incompatible functions, and is under the necessity of doing, in mere self-defence as banker, what in its capacity of agent for the Government paper money does not admit of justification." The outcome of this was that new agreements were, with the approval of the Secretary of State, entered into with effect from January 2, 1866. The banks agreed to be entirely disassociated from currency business in consideration of receiving $\frac{3}{4}$ per cent per annum as compensation on the value of notes in circulation through their agency at the time of the revision of the agreements. This compensation was to be paid until March 1, 1867, the date on which the agreements of 1862 would have expired.

An interesting result of the introduction of a Government paper currency was the use for resource purposes of the Paper Currency Reserve. In a minute of December 1863 Sir Charles Trevelyan wrote :

The Government note currency was established merely for the purpose of providing a cheap and convenient currency ; but it has now become apparent that it will also be of much public advantage by absorbing the redundant specie when money is plentiful, and giving it out again when money is scarce. In other words, it will perform for India, from several different centres, the same service which the Bank of England performs for Western Europe.

Sir Henry Maine, the Legislative Member of Council, agreed that the use of the Paper Currency Reserve for resource operations was in no way illegal, although the Council was not altogether unanimous on the point.

The only departure in the early history of the Government paper currency from maintaining the Reserve for the convertibility of the note issue was during the severe crisis in Bombay in June 1865. There was a run on the Bank of Bombay, and Sir Bartle Frere, the Governor of Bombay, telegraphed to the Government of India for permission to advance to the Bank 150 lakhs from the Paper Currency Reserve, if necessary. The Government of India, in view of the necessity of averting a widespread crisis, replied as follows:

> With reference to your telegram of yesterday, use your discretion. You will be supported. Keep us informed of the progress of affairs.

This enabled the Bank to tide over this crisis without drawing upon the Paper Currency Reserve, but when the Government of Bombay reported this to the Secretary of State, the latter's comments were:

> It is quite clear that if any connection is to be maintained in future between the Government and the Bank of Bombay, effective measures must be taken for guarding against any similar proceedings, and against any call being hereafter made for aid from Government. . . . The objections to using any portion of that reserve for any such purpose can be scarcely exaggerated. It would, in the first place, be illegal, and even if this were not the case, the same state of things which led to the pressure on the Bank might not, improbably, lead to a demand upon the Currency Department for coin for notes, and the means of meeting that demand would have

been taken by the advances to the Bank. It is impossible to sanction for the future any proceeding which might lead to such a result.

III

The Paper Currency up to the Outbreak of War

The paper currency expanded slowly on the very stereotyped lines laid down by the Act of 1861. From 1898, however, when the Gold Note Act of that year was passed, it showed welcome signs, incidentally rather than intentionally, of losing a little of its inelasticity. Between 1861 and 1871 the only noteworthy change was an increase in 2 crores of rupees in the invested portion of the Reserve. After the long lapse of nineteen years (*i.e.* in 1890) the invested portion was again increased by 2 crores. In 1896, after an interval of six years, this was raised by 2 crores, in 1905 by another 2 crores, and in 1911 by still another 2 crores. In short, the fiduciary portion of the Reserve increased in forty years by 10 crores, while the gross circulation increased by 45 crores. In 1905 the London branch of the Reserve was formed, a not unimportant fact in the history of paper currency in India. The third striking feature of the period is the steady progress of the universalisation of the smaller denominations of notes.

We may now turn to details. By Act III. of 1871 the maximum portion of the Reserve which might be held in "securities of the Government of India" was increased from 4 to 6 crores of rupees; by Act XV. of 1890 it was raised to R. 8 crores; by Act XXI. of 1896 to R. 10 crores; by Act III. of

1905 to R. 12 crores (of which R. 2 crores might be securities of the United Kingdom); and by Act VII. of 1911 to R. 14 crores (of which R. 4 crores might be securities of the United Kingdom). This was the figure at which the invested portion stood at the outbreak of war. Between 1865 and 1875 a certain amount of gold was held in the Reserve in India. In 1865 over R. 20 lakhs were so held, but the figure dwindled away to R. 220 in the following year. Gold has been continuously held in the Indian portion of the Reserve since 1898 and in the London branch since 1906. By Act XX. of 1882 the Paper Currency Act was extended to Burma, as that province had not hitherto been included in the scope of the Act. By Act VIII. of 1893 currency notes were given in exchange for gold coin or bullion to any amount.[1] Until the passing of that Act notes were given only against silver. Act II. of 1898, the Gold Note Act, which was designed as a temporary measure to relieve a tight money market, empowered the Government of India to issue notes in India on the security of gold deposited in London. The Act terminated on July 21, 1900, but was extended for another two years by Act VIII. of 1900, and in 1902 it proved so convenient that it was placed permanently on the Statute Book as Act IX. of that year. Act VI. of 1903 declared the R. 5 note to be legal tender except in Burma, and authorised its encashment at any office of issue in British India, except Burma. (In 1909 Act II. made the R. 5 note a universal note in Burma as well as in other parts of British India.) Act III. of 1905 was a consolidating Act. In addition to its being a consolidating Act,

[1] Gold was not held under this Act until 1897 (see p. 257).

it allowed an increase in the invested portion and permitted the holding of the Reserve in rupees, gold coin, bullion, or securities either in India or in London. Coined rupees, however, were to be kept in India, and not more than 2 out of R. 12 crores of the invested portion of the Reserve were to be securities of the United Kingdom. Act II. of 1910[1] repealed Acts III. of 1905 and II. of 1909, and amended as well as consolidated the law on the paper currency. A note of the value of 5, 10, or 50 rupees, as well as any other denomination which the Governor-General in Council may by notification in the Gazette of India so declare, may be a "universal currency note," *i.e.* such a note was encashable at any office of issue and at the same time was legal tender throughout British India. The number of circles was revised to (1) Calcutta, (2) Bombay, (3) Madras, (4) Rangoon, (5) Karachi, (6) Cawnpore, and (7) Lahore. The holding of the Reserve and the publication of the usual weekly abstract of accounts were also provided for by this Act. By a notification issued at the same time under the Act the further issue of 20 rupee notes was discontinued. In 1911 the R. 100 currency note was universalised by notification in the Gazette of India. The following table summarises in a convenient form the main facts relating to the composition and location of the Paper Currency Reserve up to March 31, 1914:

[1] See Addenda and Corrigenda, p. 483.

[TABLE

COMPOSITION AND LOCATION OF PAPER CURRENCY RESERVE
(In lakhs of rupees.)

Last day of March.	Total note circulation.	Composition and location of the Reserve.						
		Silver.	Gold.			Securities (purchase price).		
		India.	India.	England.	Total.	India.	England.	Total.
1862–1871 (average)	7,63	4,80	3	..	3	2,80	..	2,80
1872–1881 „	11,82	5,98	..	..	..	5,84	..	5,84
1882–1891 „	15,74	9,64	..	..	..	6,10	..	6,10
1892–1901 „	27,29	15,74	2,32	23	2,55	9,00	..	9,00
1902–1911 „	43,82	19,45	9,15	4,02	13,17	10,00	1,20	11,20
1912	61,36	15,48	23,33	8,55	31,88	10,00	4,00	14,00
1913	68,98	16,45	29,38	9,15	38,53	10,00	4,00	14,00
1914	66,12	20,53	22,44	9,15	31,59	10,00	4,00	14,00

The annual statistics from 1901 are given in the tables at the end of the book. The composition and location of the Reserve if expressed in percentages are as follows:

PERCENTAGES OF EACH COMPONENT OF THE RESERVE TO TOTAL NOTE CIRCULATION

Last day of March.	Percentage of silver to total Reserve.	Percentage of gold to total Reserve.	Percentage of securities to total Reserve.
1862–1871 (average) . .	63	..	37
1872–1881 „ . .	51	..	49
1882–1891 „ . .	61	..	39
1892–1901 „ . .	57	10	33
1902–1911 „ . .	44	30	26
1912	25	52	23
1913	24	56	20
1914	31	48	21

The gross note circulation rose from R. 8 crores in the first decennial period ending 1871 to R. 44 crores in the period ending 1911, and to R. 66 crores in 1914.

This was backed partly by silver and partly by securities down to 1897 (except a small amount of gold held in India between 1865 and 1875) when the amount of silver was R. 14 crores and securities R. 10 crores, or 58 and 42 per cent of the total reserve respectively. In 1914 the silver portion rose to R. 20½ crores and securities to R. 14 crores. Silver, therefore, formed 31 per cent, securities 21 per cent, and gold 48 per cent of the total reserve. From 1875 to 1897 there was no gold in the reserve. In 1898 the amount of gold was R. 25½ lakhs, or 1 per cent of the total reserve. Since then it has grown considerably, and in 1914 above R. 31½ crores were held in gold both in India and England.

In previous chapters we have dealt with the use of gold in the Paper Currency Reserve in London in connection with silver purchases and with the maintenance of exchange. We have also referred to the silver holding in India as being a useful index as to the time for silver coinage. We need not go over again the formula by which Government aimed at having, on November 1, 24 crores and 18 crores on May 1 in a year of heavy absorption, and 24 crores on the same date in a normal year. In the light of the percentages in the table above, Sir James Meston's remarks on the Paper Currency Reserve before the Chamberlain Commission in 1913 are of interest:

Personally . . . I think we have been almost too careful, and that there ought to be no difficulty in educating the public mind to a considerable change. If I may put it in figures, as a very rough suggestion, I should be glad to see the reserve held somewhat in this style: I should like to see about 40 per cent in rupees to secure the prompt convertibility of the notes which are likely to be brought in for conversion. That implies, I think, that the facilities for conversion will be considerably greater than they are at present. I should like to see, say, 20 per cent held in gold, available for the prompt purchase of silver to restore the rupees in the event of a run upon them. I think it would be quite sufficient to have 30 per cent of permanent securities as an ultimate reserve against a very grave collapse in the note circulation. That would leave 10 per cent of the total reserve, which I should have no hesitation in leaving free to the market; that is to say, . . . in the form of temporary investments.

The Chamberlain Commission wisely pointed out that a more elastic currency to meet the expansion in trade was required, and that a metallic backing for all notes issued above a fixed maximum (which could only be altered by an Act of the Legislature) was increasingly inconvenient. It was realised that the Gold Note Act and the development of the sale of Council drafts made it possible for notes to be issued in India against money tendered in London. So far as the Paper Currency System itself is concerned this elasticity was secured only (before the war) by the ear-marking of gold in London which was, of course, equivalent to the export of gold to India from London. The expansion of the Paper Currency in India was thus at the expense of the gold reserves of London, and in some circumstances the resulting stringency in London was so disadvantageous to India as to make an expansion of the currency by this means undesirable. (As we have seen in Chapter III. British Treasury bills have during the war been taken as the next best thing to gold.) The Commission proceeded to recommend in February 1914 that—

(i.) The Paper Currency System of India should be made more elastic. The fiduciary portion of the note issue should be increased at once to R. 20 crores, and thereafter fixed at a maximum of the amount of notes held by Government in the Reserve treasuries *plus* one-third of the net circulation, and Government should take power to make temporary investments or loans from the fiduciary portion within this maximum in India and in London, as an alternative to investment in permanent securities.

In India the loans should be made to the Presidency banks, and in London the Secretary of State should have power to lend out sums received in payment for Council drafts sold against the Currency Reserve in the busy season, provided that the total of the cash portion of the Paper Currency Reserve does not fall below two-thirds of the net circulation.[1] It would, the Commission believed, be possible to lend temporarily from the Paper Currency Reserve, especially during the busy season, when a permanent investment would be unwise. Government would, therefore, gain by a considerable accretion in interest, while the money market would, by this temporary expansion of currency in the busy season, obtain some relief from the seasonal stringency. The Government of India would be able, as the note circulation increases, to add to the permanent or temporary investments of the Reserve without special legislation. The Commission also pointed out:

The power to make temporary investments in London on account of the Paper Currency Reserve will be a convenience to the Secretary of State in permitting him to sell Council Drafts against the Paper Currency Reserve, in anticipation of silver purchases or of any other cause, without the loss of interest and other disadvantages which might sometimes come about if he were compelled, without dis-

[1] *I.e.* gross circulation *minus* the amount held in Reserve treasuries.

cretionary power, to utilise the entire proceeds of such sales in ear-marking gold.

(ii.) The use of notes in India should be encouraged by legitimate means. The number of places at which notes are encashable as of right as well as the extra legal facilities for encashment should be increased, and the R. 500 note should be universalised. After experience of this it might be possible to carry universalisation still further.

We do not think that the extra cost of remitting specie from place to place to provide for the encashment of notes would, except at the outset, be appreciable, and we think that, in any case, it would be more than counterbalanced by the advantage of an increased circulation of the notes as a medium of currency.

(iii.) The gold in the Paper Currency Reserve should be used in normal times to supply gold for internal purposes up to the full extent of the resources of the metallic portion of the Reserve. But when exchange falls to 1s. $3\frac{29}{32}$d. any gold in the Paper Currency Reserve in India should be given out only on such conditions as will secure its immediate export. The gold in the London branch of the Reserve should be regulated according to the size of the metallic reserve in India. When rupees are plentiful and the stock of gold correspondingly small in the Indian branch, the Secretary of State should not hold more than £5,000,000 in gold in the London branch. This sum in a time of crisis should be treated, not as the first line of defence for the exchange, but as a second line behind the Gold Standard Reserve, especially the gold portion of it. It would also serve with the sterling securities in the Paper Currency Reserve as a final resource for securing the convertibility of notes in an internal crisis in India. Any sum over £5,000,000 in the Paper Currency Reserve in London should be temporary only, and used for the purchase of silver for rupee coinage, the function of such additional gold being to maintain the internal currency of India and not to support exchange. It is of great interest to view these recommendations in the light of experience gained during the war. To this we shall now turn.

IV

The Paper Currency in War Time

Shortly after the outbreak of war, as has been shown in Chapter III., the dislocation of trade brought about a run on certain currency offices for the encashment of notes. This, happily, was only of temporary duration. Confidence was restored by the unrestricted payment of silver. With increased facilities for encashment it was recognised that further expansion of the note issue was easily possible. Steps were taken in 1915 and 1916 to secure the convertibility of notes not merely at currency offices but also at district treasuries and at a number of the branches of the Presidency banks. The results exceeded expectation until the events of 1918 made, owing to the shortage of silver, such widespread convertibility temporarily impossible. The gross circulation increased between March 31, 1914, and 1919 from R. 66 crores to R. 153 crores, an increase of 132 per cent; the active circulation (*i.e.* that portion of the note circulation held outside treasuries and the head offices of the Presidency banks) increased in the same period from R. 50 crores to R. 134 crores, an increase of 168 per cent. The experiment of issuing small notes for R. 1 and R. 2/8 was initiated in December 1917 and January 1918 respectively. By March 31, 1918, the value of 1-rupee notes in circulation was R. 33 lakhs and of R. 2/8 notes (which are less popular) R. 18 lakhs. On March 31, 1919, the values were R. 10,51 lakhs and R. 1,84 lakhs, an increase of no less than R. 10,18 lakhs and R. 1,66 lakhs respectively in one year. In 1918–19, the year of the silver crisis, high prices and the disappearance of rupees from circulation made the use of notes for financing staple crops like jute and cotton imperative. This was, to speak frankly, hardly voluntary; but it was imperative because, with rupee balances drawn on to the bone, it was essential to concentrate them in the head currency offices where the conversion of the notes into rupees is compulsory by law. The free encashment of notes at district treasuries had reluctantly to be withdrawn to a large degree, and, in order to safeguard the balances at the currency offices, the booking of specie by rail and steamer was prohibited, as was the sending of specie by post. The large increase in note circulation, combined with the very abnormal events that need not again be described, resulted in (1) the notes changing hands in many places at a discount, a matter of great and grave concern to Government, and (2) a large demand for subsidiary coinage, which was admittedly inadequate. The effects of these remarkable happenings are brought out in the summary tables. They show perhaps better than anything else the abnormal change that has taken place in our currency habits in war time.

The large increase in paper currency was rendered possible by several Acts, which are as follows:

(In crores of rupees.)

Acts.	Nature and value * of securities which may form the Reserve.		
	Permanent invest-ments.	Permissible temporary investments (mainly British Treasury Bills).	Total (2) and (3).
1.	2.	3.	4.
Act VII. of 1911 (Pre-war)	14	..	14
Act V. (Temporary Amendment) of 1915 .	14	6	20
Act IX. " " of 1916 .	14	12	26
Act XI. " " of 1917 .	14	36	50
Act XIX. " " of 1917 .	14	48	62
Act VI. " " of 1918 .	14	72	86
Act II. " " of 1919 .	14	86	100

* Purchase price.

These figures represent the maximum amount of the securities that may be held at any time in the Reserve. It should be noted that of the total 100 crores, 14 crores represent the permanent pre-war investment (10 crores Government of India securities and 4 crores sterling securities) and the rest (86 crores) is the permissible specific temporary investment mostly against British Treasury bills for the duration of the war and the six months thereafter. The Indian Currency Committee of 1919 will make recommendations on the question of the investments of the Paper Currency Reserve, and until these are received and considered by Government, no permanent changes in the paper currency as a result of the war can be expected. The growth in the total note circulation and the changes in the holding of the Paper Currency Reserve, as compared with the pre-war quinquennial average, are summarised in the following table:

(A) TOTAL CIRCULATION AND THE PAPER CURRENCY RESERVE IN THE WAR PERIOD

(In lakhs of rupees.)

Last day of March.	Total note circulation.	Composition and location of the Reserve.						
		Silver.	Gold.			Securities (purchase price).		
		India.	India.	England.	Total.	India.	England.	Total.
Pre-war quinquennial average (1910–14) .	61,17	21,59	18,75	7,63	26,38	10,00	3,20	13,20
War average (1915–19)	93,80	24,66	15,22	5,41	20,63	11,22	37,29	48,51
1915	61,63	32,34	7,64	7,65	15,29	10,00	4,00	14,00
1916	67,73	23,57*	12,24	11,92	24,16	10,00	10,00	20,00
1917	86,37	19,21†	12,00	6,67	18,67	10,00	38,49	48,49
1918	99,79	10,79	26,85	67	27,52	10,00	51,48	61,48
1919	153,46	37,39‡	17,37	12	17,49	16,08§	82,50	98,58

* Includes R. 51 lakhs, being the value of silver bullion held in England.
† Includes R. 13 lakhs, being the value of silver bullion held in England.
‡ Includes R. 504 lakhs, being the value of silver bullion held in the United States of America and in transit therefrom.
§ Includes R. 608 lakhs of Indian Treasury bills.

(B) PERCENTAGES (OF THE TOTAL CIRCULATION OF EACH YEAR)

Last day of March.	Percentage of silver to total Reserve.	Percentage of gold to total Reserve.	Percentage of securities to total Reserve.
Pre-war quinquennial average (1910–14) . . .	35	43	22
War average (1915–19) . .	26	22	52
1915	52	25	23
1916	35	36	29
1917	22	22	56
1918	11	27	62
1919	24	11	65

The main features of the foregoing tables are: (1) The large growth in the invested portion of the Reserve. This was rendered possible by the Acts referred to above. Since 1918 investments were made in Indian Treasury bills in addition to investments in rupee paper. Investments in Indian Treasury bills did not, of course, require special legislation, since these are "Government securities." The Financial Member of Council, it will be remembered, spoke of this in introducing the Financial Statement for 1919–20: "None of us can pretend to any affection for that form of investment into which our necessities have recently forced us; I mean, the purchase of our own Treasury bills." The invested portion of the Reserve was 366 per cent on March 31, 1918, above the pre-war period, and on March 31, 1919, 647 per cent. These percentages are calculated on the gross circulation. The holding of the invested portion in the United Kingdom—chiefly in British Treasury bills—is a war measure, as already explained. (2) The silver portion of the Reserve in India has undergone a decided change. On March 31, 1916, it was 35 per cent of the gross circulation; on the corresponding date of 1917, 22 per cent; on the same date of 1918, 11 per cent; on March 31, 1919, 21 per cent. (3) The holdings in gold in London and in India have similarly changed in a marked degree. This is shown by placing the figures in juxtaposition thus:

[TABLE

GOLD IN THE PAPER CURRENCY RESERVE

(In lakhs of rupees.)

	1917.	1918.	1919.
In London . . .	6,67	67	12
In India . . .	12,00	26,85	17,37
Total . . .	18,67	27,52	17,49
Percentage of total to gross circulation .	22	27	11

During the year 1916–17 a Paper Currency Reserve Depreciation fund was created to meet the depreciation in the value of the $2\frac{1}{2}$ per cent Consolidated Stock. The object in view is to replace the entire holdings of this stock by more suitable securities as opportunity offers. The fund consists of allocations from the interest received on Paper Currency investments. The investments are in British Treasury bills. The latest accounts of this fund for the year ended March 31, 1918, were:

(*a*) RECEIPTS

	£
British Treasury Bills paid off or transferred to Paper Currency Reserve	756,517
Discount on British Treasury Bills maturing	16,062
Amount transferred from Revenue Head "Paper Currency Reserve interest"	450,000
	1,222,579

(*b*) DISBURSEMENTS

	£
Investments in	
£779,000 British Treasury Bills	762,028
£308,300 Exchequer bonds 6% (1920)	313,650
	1,075,678
Transfer to Paper Currency Reserve of loss on sale of £500,000 Consols	146,891
	* 1,222,569

* Home Accounts for 1917–18.

There is as yet no depreciation fund for Indian Government securities in the Paper Currency Reserve.

The investments on March 31, 1919, (1) in London and (2) in India will be found in the following table:

AMOUNT OF SECURITIES HELD ON MARCH 31, 1919

	Amount.	Cost price.	Amount.	Cost price.
In England.	£	£ s. d.	R.	R.
2½% consolidated stock	1,000,000	852,395 10 10	1,50,00,000	1,27,85,933
British Treasury Bills .	55,066,000	54,146,557 17 11	82,59,90,000	81,21,98,369
Total . . .	56,066,000	54,998,953 8 9	84,09,90,000	82,49,84,302
In India.				
3½% loan of 1842-43 .	..	..	8,15,95,000	8,00,00,000
3% loan of 1896-97 .	..	..	2,04,86,500	1,99,99,945
Indian Treasury Bills .	..	..	6,40,00,000	6,08,00,000
Grand Total .	56,066,000	54,998,953 8 9	1,00,70,71,500	98,57,84,247

Of R. 99 crores invested R. 83 crores were in British Treasury bills and 2½ per cent consolidated stock, and the remainder in Indian securities. In addition to R. 10 crores in 3½ and 3 per cent stock, there was also an investment of R. 6 crores in Indian Treasury bills. The latest available statistics regarding the annual receipts of the Paper Currency Department show R. 183 lakhs, excluding R. 67½ lakhs transferred to the Depreciation fund above. The total charges were R. 30 lakhs, leaving a net profit to Indian revenues of R. 153 lakhs, or over £1,000,000 sterling.

Since the war there has been a considerable change in the circulation of certain denominations of notes. The five, ten, and one hundred rupee notes have become increasingly popular, while notes of higher denominations, especially the R. 10,000 note, have been less popular. R. 10 and R. 100 notes account for about 60 per cent of the circulation as against 50 per cent in the pre-war quinquennial period.

The details will be found in the appended table, No. 18, on page 464.

The lamp of experience has thrown new light on the workings of our paper currency, especially since 1914. The problems before the Indian Currency Committee of 1919 are more complex than those which faced the Chamberlain Commission of 1913. The main question is how to make the paper currency system more elastic while yet freeing it from the anxieties experienced in 1918. This raises the thorny questions regarding (1) the strength of rupee reserves in the Paper Currency Reserve in India, (2) the amount of gold that may safely be held in both branches, and (3) the extent and nature of the invested portion of the Reserve. There is also the important question of increased opportunities for convertibility, and the feasibility of having more places where the notes can be converted into rupees and *vice versa*, a point which had received great attention from Wilson in 1859–60 and more recently from the Government of India. Our system, too, lacks one of the essential features of the very successful working of the Federal Reserve system in the United States' short temporary investments. We may cite, for example, the issue of Federal Reserve Notes to the American banks on the security of commercial trade bills as distinct from "floaters" or accommodation bills. These trade bills are drawn against actual goods which are marketed in due course. When payment is received for the goods, the bills are quickly retired. Since the bills are themselves redeemed in notes, the concomitant of the self-liquidating bill in this system, as has been said, is the self-retiring note. No inflation, therefore, of the currency is involved. We mention this because it shows the elasticity of the progressive American system, and its adoption in India is worthy of careful consideration. The main point is that, although the working of our paper currency system is automatic, it is, owing to the influence of the English Bank Charter Act of 1844 on our legislation of 1861, not quite so elastic as our bankers and the Chamberlain Commission would like it to be. In view of the great increase in trade, especially in the busy season when recurring stringency is very clearly felt in the money markets of the Presidency towns, a less inelastic system of paper currency appears to be desirable.

CHAPTER IX

THE GOLD STANDARD RESERVE

I

The *Raison d'être* of the Reserve

The Gold Standard Reserve is intended to ensure that the value of the rupee does not fall below what is known as specie point. The theory is that when, owing to an adverse balance of trade, the exchange value of the rupee threatens to fall, the Secretary of State can for a time stop his sales of Council drafts on India, and can replenish his Home Exchequer by drawing on this reserve. The Government of India similarly may support exchange by selling gold bills on the Secretary of State (which are met from the Reserve) and by withdrawing rupees, the proceeds of these bills, from circulation. The Gold Standard Reserve is required not only to meet the "Home charges" of the Government of India when an adverse rate of exchange prevents the free sale of Council drafts, but also to liquidate an unfavourable balance of trade to the extent necessary to prevent exchange from falling below specie point. The Reserve is not, of course, required to provide for the conversion into sovereigns of all the rupees in circulation, but only those seeking export or conversion into sterling at any particular time to settle debts due in sterling. Before the rise in exchange in November 1918 the lower specie or gold point was 1s. $3\frac{29}{32}$d. This rate was altered to 1s. $6\frac{1}{32}$d. in November 1918, and to 1s. $7\frac{31}{32}$d.[1] in May 1919. The rates for reverse "immediates" were in August 1914, 1s. $3\frac{13}{16}$d. and 1s. $3\frac{27}{32}$d.; in November 1918, 1s. $5\frac{31}{32}$d.; and in May 1919, 1s. $7\frac{29}{32}$d.

The Gold Standard Reserve was thus designed to prevent a fall in exchange, and not a rise such as has occurred since 1917. That rise was not dreamt of either by Government or by the Chamberlain Commission, and it could not have been anticipated.

II

The Amount of the Reserve

The Gold Standard Reserve is built up out of the profits of coinage and the interest on the securities invested in the Reserve. Since 1915 the profit or loss arising from the remittance of the funds for the Gold Standard Reserve has also been credited or debited to the Reserve.

We do not propose again to review its history, such as the suggestion of Lords Farrer and Welby in a minute appended to the Herschell Report of 1893 regarding a reserve of gold to secure the convertibility of the rupee currency,[2] the Fowler Committee's

[1] These rates have subsequently been altered with effect from August 12, 1919, as follows: Sterling bills on London, should demand for these arise, will be sold by the Government of India at 1s. $9\frac{29}{32}$d. for immediate and 1s. $9\frac{31}{36}$d. for deferred telegraphic transfers.

[2] Para. 15, Herschell Committee, C. 7060, 1893.

suggestion in paragraph 59 of their Report,[1] the minute of Sir Edward Law, and the growth of the Reserve as illustrated in the published despatches from 1900. These matters have been touched on in previous chapters.

The amount to be held as the Reserve depends upon the growth of India's trade and the extent of an unfavourable trade balance which has to be liquidated in adverse circumstances. This, however, cannot be definitely fixed, not even in the light of the crisis of 1907–8. "As trade expands and wealth increases in India, imports will expand as well as exports. But the larger the total volume of the trade is, the larger is the amount (though not necessarily or even probably the proportion) of the possible variation from year to year in the net balance in favour of or against India. If the habit of private investment in sterling securities were to assume considerable proportions, and if India had already invested largely in such securities, the consequent possession of large sterling assets by the public in India would in itself act as a reserve for the support of exchange."[2] In the crisis of 1907–8, which was undoubtedly severe, the issue of £18,000,000 in gold and sterling assets in London and India combined, righted matters until the balance restored itself. This amount, however, cannot be regarded as the maximum demand likely to be made on the Reserve. A second failure of the monsoon in the succeeding year would have been an added strain. No limit, therefore, can be placed on the amount to which the Gold Standard Reserve should be accumulated.

[1] P. 17, C. 9390, 1899.

[2] Para. 81, Chamberlain Commission Report, Cd. 7236, 1914.

The Chamberlain Commission made three recommendations on the strength of the Gold Standard Reserve:

(i.) No hypothetical limit beyond which additions to the Gold Standard Reserve should cease can be fixed;

(ii.) The gold ear-marked in the London branch of the Paper Currency Reserve should only be used in support of exchange when the Gold Standard Reserve is inadequate to support the burden itself; and

(iii.) The entire profits of the silver coinage, together with any interest accruing from investments or loans made from the Gold Standard Reserve, should for the present be credited exclusively to the Reserve (and not diverted as in 1907) until further experience shows what the calls are likely to be on the Reserve.

III

The Composition of the Reserve

The view of the Government of India in regard to the composition of the Gold Standard Reserve has consistently been that the Reserve should to a large extent be kept in sovereigns, stored away until required to support exchange. In other words, the ideal is to maintain exchange by withdrawing in the first place Indian "ear-marked" gold from the vaults in the Bank of England, and by adding it to the amount of gold at the disposal of Lombard Street. When securities alone are held in the Reserve and realised, there is, *ceteris paribus*, simply a transfer of gold or credit from one party to another in the city, and this does not in any way increase the supply of gold in the London market. A straining after interest has its obvious dangers. The realisation, for example, of a large bundle of securities may involve not merely a loss in capital value on their enforced realisation, but also an aggravation of a crisis which might in turn lead to further difficulties, the result being wholly prejudicial to India's interests as a borrower in the London money market. The Chamberlain Commission rightly concluded that

> the realisation in a crisis of securities in large quantities, and even the calling in of sums lent out at short notice, are likely to cause some stringency in the London market, and if the exchange crisis in India which makes such realisation necessary is accompanied or directly caused by a financial crisis in London or reacting upon London, as is very probable, the difficulty of realisation may be accentuated, and the possibility of loss to India cannot be ignored. India should, in this respect, be as far as possible independent of London. Just as London must look to its own resources in such a crisis, and does not and cannot count on help from Indian reserves, so India should be in a position to defend its own financial position without undue recourse to the gold reserves of London. The Gold Standard Reserve is built up out of the fruits of the economy of gold. It is a necessary condition of such economy that an adequate reserve should be held against an exchange crisis, and it is right that such reserve should be sufficient in itself to meet the crisis and should not be dependent on conditions which India cannot control or on resources accumulated by another country to meet its own liabilities.

The Commission after full consideration of the wastefulness of keeping too much liquid gold, and after considering all issues in the problem, clearly, emphatically, and authoritatively laid it down that the actual gold should be at once raised to £15,000,000, and thereafter the authorities should aim at keeping one half of the total Reserve in actual gold.

It has not yet been possible to give effect to the more important of these recommendations in view of the disturbance of financial conditions caused by the war, as will be seen in the following table. The table has been constructed to show the effects of the war on the Gold Standard Reserve at the end of each year (March 31).

THE GOLD STANDARD RESERVE

(£ millions.)

	1914.*	1915.	1916.	1917.	1918.	1919.
Gold—(1) in London	4	1	..	..	..	..
(2) in India	..	5	..	1	..	..
Total	4	6	..	1	..	..
Percentage of gold to total Reserve	16	24	..	3	..	..
Cash at short notice	..	..	6	6	6	6
Securities †	17	12	16	25	28	30
Coined rupees in India	4	..	..	..	..	..
Temporary loan to Treasury balances—India	..	7	4	..	..	..
Total	25	25	26	32	34	36

* Pre-war year.
† The market value of the securities is shown. The securities of the Gold Standard Reserve are valued half-yearly on March 31 and September 30.

The increase in the total holding of the Reserve is due mainly to the large amount of fresh coinage that has been undertaken since June 1916. The statistics of the holdings year by year from 1901 will be found in Table 19 on page 465.

The Commission's recommendations would have resulted in a change in the composition of the Gold Standard Reserve as follows:

GOLD STANDARD RESERVE

(£ millions.)

	Actuals.		As recommended by the Commission.	
	1914.*	1919.	1914.	1919.
Gold—(1) in London	4	..	15	18
(2) in India	..	..	..	..
Percentage of gold to total Reserve	16	..	60	50
Cash at short notice	..	6	..	6
Securities	17	30	10	12
Coined rupees in India	4	..	..	..
Total	25	36	25	36

* Pre-war year.

The views of the Government of India, as stated by Sir James Meston before the Chamberlain Commission, were that the amount of liquid gold to be aimed at should be such that immediately on a crisis in exchange it should be possible to release from the Reserve substantial and imposing amounts of actual gold at the same time as the silver currency is being contracted in India. A large hidden reservoir,[1] in short, of gold belonging to the Gold Standard Reserve would thus be opened when a crisis occurred.

The holding of silver in the Gold Standard Reserve gave rise to much criticism. It was not understood by the man in the street why a large holding of silver should be held in a Gold Standard Reserve. The Government of India held this sum because this emphasised the fact that a reserve of six crores was required to make up the difference between the slack season balances and those of the busy season; the depletion, moreover, of the Reserve was a warning

[1] "Ear-marked" gold at the Bank of England belonging to India is simply warehoused there and does not, therefore, appear in the Bank's weekly statement of gold holdings.

of the necessity of fresh coinage. The Chamberlain Commission were of opinion that this silver holding in the Gold Standard Reserve led to confusion and doubt as to the efficiency of the Reserve. They, therefore, recommended the transfer of R. 6 crores of silver to the Paper Currency Reserve in exchange of £4,000,000 in gold. This was given effect to in August 1915.

On March 31, 1918, the total profit on coinage since 1900 was £28,843,592, the interest and discount £8,074,195, and the profit by exchange £194,916, a total of £37,112,703. Of this sum £1,123,655 has been used for capital expenditure on railways; the remainder has been credited to the Reserve. The total interest and discount including the profit on exchange up to March 31, 1918, were £8,269,111, and the total losses through depreciation, sale, and redemption of securities, etc., were £1,535,606. There was thus a net profit on investments up to March 31, 1918, of £6,733,505.

IV

The Location of the Gold Standard Reserve

It was stated above that the two purposes of the Gold Standard Reserve were (1) the payment, when necessary, of Home charges, and (2) the liquidation of an adverse balance of trade to prevent exchange falling below specie point. Payment for the first of these must be made in London. Payments due by India to other countries in connection with trade balances are regularly settled through London, the clearing-house of the world. If the Reserve were kept in India it would have to be shipped to London to be used, and this even in pre-war days meant a delay of about three weeks, which in a crisis might be a great disadvantage. Moreover, special precautions would be necessary to see that gold in the Reserve in India was actually used for exchange. There are, however, not a few who think that the greater part of the Reserve should be in India under the lock and key of Government, a sufficient sum only being kept in London to meet all possible exchange difficulties that are likely to occur until Indian shipments of gold and securities had time to arrive in London. The Gold Standard Reserve should in their opinion be mainly held in the Mint and Treasury in Bombay or Calcutta. A resolution in favour of holding a substantial part of the Reserve in gold in India was brought before the Imperial Legislative Council in March 1912 and received considerable support. A question as to whether the Gold Standard Reserve should not be kept in India, and as to the form in which it should be kept, formed part of a question in the same Council in March 1919. The reason for changing the location from London to India is to a considerable extent a sentimental one. It is also thought that the presence of a strong reserve of the yellow metal would give to the Indian money markets of Calcutta and Bombay unusual confidence in a time of falling exchange. Its presence, we are told, would be nothing but good. This view tends to underestimate the importance of having the Reserve mobilised ready for use in the one place where it is required. It also tends to obscure the fact that India's interests in the City of London are jealously guarded by her masterly financiers in the

India Office. All things considered, the location of the Gold Standard Reserve is not of very high importance, and is subsidiary to the main question—a large holding in liquid gold.

V

A Statutory Reserve

It has sometimes been suggested that the nature, objects, and management of the Gold Standard Reserve should be defined by statute. The question was carefully considered by the Chamberlain Commission. The main advantage is that the funds of the Gold Standard Reserve would be protected by law against such inroads as advised by the Committee of 1907. Freedom of action, on the other hand, in a crisis would be denied to Government and future improvements might be hampered. The prudent course was adopted by the Chamberlain Commission to leave matters as they are in regard to the stereotyping of the Reserve by statute in the present stage of the Reserve's development. If statutory enactment, however, would result in the compulsory holding of a considerable amount of liquid gold ready for any crisis in exchange (which war-time experience has shown to be essential), and if it did not crystallise what is sometimes regarded in India as heresy in the composition of the Gold Standard Reserve, the question of a statutory Reserve should be reopened and carefully reconsidered.

CHAPTER X

A GOLD CURRENCY AND A GOLD MINT

I

The Use of Gold in India

The gold which India annually imports in part payment for her exports is not used on an extensive scale for internal circulation, and it is not kept in bank reserves and mobilised for credit and exchange purposes. It is therefore not employed as it is by the more progressive countries in the promotion of industries and commerce. It is used for conversion into ornaments and for similar purposes; it is also hoarded. The statistics of gold absorption, set out in Chapter I., are an interesting, if not a sad, illustration of this well-known fact. The average net imports of gold (imports *minus* exports) during the five pre-war years were, as we have seen, £19,000,000 sterling annually, of which £12,000,000 were in the form of sovereigns, the remainder being in the form of bullion and coined gold other than sovereigns and half-sovereigns. In war time the average annual imports for the five years ending March 31, 1919, were £5,000,000, of which £2,000,000 only were in sovereigns. These imports, however, were under very exceptional conditions—war and not peace conditions, when our customers were clinging to gold already centralised with a tenacity hitherto undreamt of. This explains why sovereigns were in 1919 selling in the bazaar at or near R. 19 at a time when exchange was at 1s. 8d. per rupee, *i.e.* R. 12 to the £1. Sovereigns were simply commodities and not in any way currency. Since 1835–36, the first year when reliable statistics of treasure are available, the net imports up to March 31, 1919, were £316,000,000, of which 57 per cent, a surprisingly high percentage, has been imported since the closing of the mints to the free coinage of silver in 1893, and 53 per cent since 1900. A careful examination of all available data (import and export statistics, and production including world production) leads us to estimate the total stock of gold in India to-day at £372,000,000.[1] In 1835 the stock was £56,000,000, at the closing of the mints £193,000,000, twenty years ago £200,000,000, and ten years ago £252,000,000. In recent years, therefore, gold has been imported and added to the general stock in greatly increased quantities. These imports of gold have been accompanied by equally large imports of silver. As every one knows, the silver rupee has been and will continue to be to the bulk of the population the coin *par excellence* both as a circulating medium and as a convenient store of value. Since 1835, it is of interest to note, our net imports of silver have been 2,903,000,000 ounces, or 35 per cent of the world's production, and the total stock of silver in India to-day may be estimated at

[1] Mr. F. C. Harrison made in 1893 an estimate of the stock of gold working on a somewhat similar method. His estimate was £180,000,000. Since that date there were net imports of £181,000,000 of gold by sea into India, thus making a total on March 31, 1919, on his method of £361,000,000.

3,729,000,000 ounces, or 28 per cent of the production of the world's mines. Until there are more banks scattered up and down the country-side, more and better education,[1] a still more developed system of communications, this absorption of gold as well as of silver is likely to continue. We are sometimes asked to believe that the introduction of a gold currency, even in a mild luxurious way, and a gold mint would mysteriously and happily cure this malady of ours. These two proposals are separate proposals, with each of which it is preferable to deal below.

II

A Gold Currency

The question of a gold currency in extensive use narrows itself down to a very simple question—Would a gold currency remedy or assist in remedying the state of affairs just described? Would, in short, a gold currency be conducive to India's interests?

It is said that with an extensive use of gold as a circulating medium gold would come out from its peaceful resting-place and be put to productive uses; it would become a circulating medium of great efficiency; and above all it would be a prop of undoubted strength in a time of crisis, since it would be a means of support to exchange. An extensive use of the gold that is in circulation, currency history teaches us, will not bring it out into circulation when required to support a falling exchange. The attempts made between 1900 and 1914 in various

[1] *Vide* also Chapter I.

parts of India tend to support the experience of other countries. In fact, the reverse has been the case. "Every step," as the Chamberlain Commission puts it, "in the direction of popularising gold makes it more likely that people will cling to the gold they have, and seek to obtain what additional gold they can, on any occasion of crisis or general want of confidence." As a circulating medium of great efficiency for internal payments gold is certainly so for large payments, always provided that these payments cannot be made in cheques or notes. For the everyday transactions of the country (which are of small amounts) rupees will be required. As a support to a weakening exchange gold in circulation will not seek export, but it is rupees that do so. This was carefully examined by the Chamberlain Commission, who authoritatively reported in this connection that "It is a mistake to believe that to have 10 or 20 per cent of the total active circulation in the form of gold means 10 or 20 per cent of the advantages, such as they are, of having nothing but gold in circulation. During the crisis of 1907–8, while £4,179,000 in gold was withdrawn by the public from the Paper Currency Reserve, only £250,000 was exported on private account. We do not believe, therefore, that the circulation of gold on a moderate scale only would materially reduce the liabilities which Government ought to be prepared to meet." If the circulation of gold were on an extensive scale this will be at the expense of the Gold Standard and Paper Currency Reserves. This will, therefore, make less gold available for exchange when a crisis or general lack of confidence occurs. If the gold takes the place of new rupees (which it would otherwise be necessary to mint) the Gold Standard Reserve is diminished by the amount that would have been added to that Reserve as profit on coinage had the rupees been minted. Except for accretions from interest this line of action would stop the natural growth of the Gold Standard Reserve. If gold in circulation were to take the place of the notes and rupees in circulation, this would also mean the quick depletion of the gold in the Paper Currency Reserve, which is, as we have seen, a support to the Gold Standard Reserve in times of stress. Gold that is in circulation to a small extent is of no real assistance in a falling exchange; gold in extensive circulation is necessarily at the expense of the Reserves and, so far from making the gold in the country more efficient in a time of a financial or exchange crisis, makes it less efficient.

In the United Kingdom, as in India, only a small percentage of the total transactions was before the war carried out by means of gold. In Egypt, however, gold was in circulation to a considerable extent. It was the only country in the world which used gold largely in its total payments. This import and export of sovereigns were not only an economic loss to Egypt, but an annual source of inconvenience to the money markets of the world, and indirectly, as a consequence of this, to Egypt itself. In order to bring about such a state of affairs in India in regard to gold as obtained in Egypt, it would be necessary to withdraw from circulation at great expense a very large part of the rupee circulation and the note circulation. A circulation of gold has already proved itself, in those districts of India where it was actively tried, to be at the expense of notes, and notes are, of course, a very cheap and convenient form of currency. The

Currency Report of 1912–13 summed up the position thus:

> Gold has replaced rupees to a large extent in the Punjab and to a smaller extent in Bombay and the United Provinces also. The question now arises whether the increased use of gold has affected the note circulation at all. In the Punjab it is certain that the circulation of five- and ten-rupee notes has been affected. The gross circulation of the five-rupee note after nearly doubling in the three years 1908–9 to 1911–12 increased by ·5 per cent only in 1912–13. The gross circulation of the ten-rupee note in 1910–11 was more than double what it was three years before. In the last two years it has increased by 1 per cent only. These figures, considered in conjunction with the large increase in the use of sovereigns in the last two years, are irresistible. In Bombay the gross circulation of the ten-rupee note after increasing by nearly 30 per cent in the two years 1908–9 to 1910–11 has increased by ·6 per cent only in the last two years. On the whole, it may now be definitely stated that, but for the use of gold as currency, the circulation of the smaller currency notes would have expanded much more rapidly in the Punjab, Bombay, and the United Provinces.[1]

Up-country bankers corroborate from their receipts that where before the war gold was in circulation, the percentage of their receipts in notes was below the average as gold had displaced these.[2]

[1] See Mr. M. F. Gauntlett's able Report on the Operations of the Currency Department, etc., for 1912–13 (para. 59; also quoted by the Chamberlain Commission).

[2] Cf. Statement of Receipts and Disbursements of the National Bank, pp. 541-542, vol. ii. of Appendix to the Interim Report (Chamberlain Commission), Cd. 7071, 1913, and Receipts of the three Presidency Banks, Cd. 7238, 1914 (pp. 724-726). It is also of interest to note that in 13 branches of the National Bank (an Exchange bank) in May 1913, 88 per cent of the receipts were in notes, 8 per cent in rupees, and 4 per cent in gold. (Gold was received chiefly in Cawnpore and Cochin; in the three Presidency towns very little gold was received.) In the Bank of Bengal for June 1913 (head office, local branches, and 19 other branches) the percentages were—notes 70 per cent, rupees 24 per cent, gold 6 per cent (gold was received chiefly in Lahore, Delhi, and Cawnpore). In the Bank of Bombay (February to May 1913) head office and 13 branches—notes 81

In some men's minds there lurks the idea that a gold currency is a badge of prestige in the eyes of the world's money markets, and that before the war the British system had a gold currency, and why not the Indian? Comparisons, as Marlowe says, are odious. This view loses sight of two important facts, viz. (1) that the circulation of sovereigns in the British system was in reality a subsidiary part of the system, and (2) that financial prestige lies not in the possession of a gold currency but of a gold standard. The widespread use of gold coins was not characteristic, even before the war, of any currency system in use among the leading countries of the world. What was characteristic was a widespread banking system, an extensive use of cheques and of notes. It was the working of the Bank of England and its influence through its bank rate on the money market, the preponderating use of cheques, and after cheques notes, that were, for example, the features of the English system. The use of the sovereigns for that small class of payments which are made in hard cash was an unimportant and fortuitous part of the system. Since the war gold has not been in circulation in the United Kingdom as in other countries, and it is unlikely that it will be used for small transactions in the future. The Cunliffe Committee on Currency and Foreign Exchanges after the War recommended that—

While the obligation to pay both Bank of England notes and currency notes in gold on demand should, in our judgment, be maintained, it is not necessary for the main-

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per cent, rupees 16 per cent, gold 3 per cent (gold was received chiefly in Bombay). In the Bank of Madras, June 1913, the percentages were—notes 52 per cent, rupees 44 per cent, and gold 4 per cent (gold was paid almost entirely in Cochin).

tenance of an effective gold standard, nor do we think it desirable, that there should be an early resumption of the internal circulation of gold coin. For the present, at any rate, we think that it will be more economical that gold should be held in a central reserve as a backing for notes in circulation. We do not think that any legislation on this subject will be required. People have by now become fully accustomed to the use of notes, and it is probable that (except for the limited requirements of persons proposing to travel abroad) they will continue to circulate instead of gold coin much as they do at present. Informal action on the part of the banks may be expected to accomplish all that is required. If necessary, however, the circulation of gold coin could be prevented by making the notes convertible at the discretion of the Bank of England either into such coin or into bar gold, though for our own part we should prefer to maintain the right of the note-holder to receive payment in gold coin and to trust to the informal steps suggested above to prevent gold from flowing into internal circulation.[1]

What, then, should be the position of gold in the Indian Currency System? Sovereign for sovereign gold in active circulation is immeasurably less efficient for supporting exchange than gold mobilised in Government or bank reserves. That is as clear as the noonday. If gold is imported as hitherto, only the minimum required for marriage ornaments, etc. (which custom necessitates), should be sold, the remainder being conserved in Government and (as our banking system develops) in bank reserves. Mr. D. M. Dalal, the Bombay representative on the Currency Committee of 1919 and the Financial Correspondent of the *Times of India*, writing in March 1919, expresses it thus:

India ought to receive every year at least fifteen millions

[1] Cd. 9182, 1918 (para. 23).

of gold, of which ten millions should be kept in our reserves and five millions should be skilfully sold on the market for the making of ornaments and for other industrial purposes, as the present premium of over 30 per cent over the import price of gold is a distinct incentive for the hoarding of metallic money in this country. The profit on bar gold sold to the public at current rates should be credited to the Indian Revenue Account.

If India were to obtain this amount it would be the equivalent of 16 per cent of the production of the pre-war year 1913, and 19 per cent of year's figure, as will be seen from the following table:

WORLD'S GOLD PRODUCTION, 1913–18
(In millions of £ sterling.)

Year.	Transvaal.	British Empire total.	Foreign countries.	World.	Drop as compared with 1915 output. British Empire.	Drop as compared with 1915 output. World.	India's net imports to total world production.
					Per cent.	Per cent.	Per cent
1913 . .	37·4	58·9	3·36	92·5	..	..	16·9
1914 . .	35·6	56·6	3·32	89·8	..	..	5·7
1915 . .	38·6	58·7	3·81	96·8	..	..	*Nil* *
1916 . .	39·5	59·6	3·37	93·5	..	3	9·4
1917 . .	38·3	56·1	3·09	87·0	4½	10	19·3
1918 . .	35·8	50·7	2·69	77·6	13½	20	*Nil* *

* In 1915 and 1918 there were actually net exports of gold.

Gold in active circulation is wasteful. Hoarding, which is even more wasteful, cannot be cured without greater facilities as regards both banking and education. We do not require nor do we ask for gold to any considerable extent for circulation. We do require strong reserves, not only of rupees as the silver crisis of 1918 taught us, but also of gold. Our currency system is like an army liable to be attacked on either flank, and both flanks must necessarily be protected. The most suitable media for internal circulation are rupees and notes, especially the latter; for the settlement of our external obligations we should turn to mobilised gold reserves, by means of which so much of the internal currency that seeks export may be converted quickly and without difficulty into sterling. The war has taught that this is and must be the proper line of advance in future.

III

A Gold Mint

A gold mint in Bombay has always struck the imagination of many people as a very desirable end in itself. It is looked on as an attribute of sovereignty, and the presence in India (where imagination counts for so much) of a gold mint is often regarded as adding to our national pride. Without the stimulus of such a mint, however, gold has, it is true, been imported freely into India. The Dominions possess mints, which are branches of the Royal Mint in London, for the coinage of sovereigns in Sydney, Melbourne, Perth, and Ottawa. In the Union of South Africa active steps are now being taken to establish a gold refinery and mint, and with the consent of the Imperial Government the necessary legislation is being introduced during the present session of the Union Parliament. If gold is refined locally, the producers are relieved of the necessity of sending it to London to be sold. Producers are presumably able to hand the gold over to their bankers and are thus able to dispose of it in the best market. This is a line of reasoning that is apparently sound. We are also asked to believe that a gold mint, like a gold currency, would draw gold from hoards, that it would give permanence and stability to the policy of 1898, and that it would encourage gold in circulation. This, however, has already been discussed.

The history of the re-establishment of a gold mint dates from 1899. The recommendation of the Fowler Committee was that

> the Indian mints should be thrown open to the unrestricted coinage of gold on terms and conditions such as govern the three Australian branches of the Royal Mint. The result would be that, under identical conditions, the sovereign would be coined and would circulate both at home and in India. (Para. 54.)

It is, of course, necessary that the Royal Mint should be responsible for its sovereign coined elsewhere (*i.e.* at its branches). The sovereign is, as Sir Shapurji Broacha once called it, the cement of the Empire. From 1899 to 1903 correspondence took place between the Government of India, the Secretary of State, and the Lords of the Treasury. Difficulties cropped up such as the possibility of dispensing with a charge for coinage, the suitability of buildings, the strength of staff, etc. The questions of buildings, appliances, and staff were practically disposed of by May 1901. The Treasury wrote at this time on the main question as follows:

> Indian currency needs are, in fact, provided for from other sources (*i.e.* the importation of sovereigns), and there is no real demand for the local coinage of sovereigns. My Lords cannot believe that the position of the gold standard in India will be strengthened, or public confidence in the intentions of the Government confirmed, by providing

machinery for obtaining gold coins which is neither demanded nor required by the mercantile community, while, on the other hand, the failure or only partial success of a gold mint would undoubtedly be pointed out by the opponents of the gold standard policy, although without justification, as evidence of the breakdown of that policy.

In December 1902 the Government of India informed the Secretary of State that the chief mining companies had made arrangements to sell their gold in London,[1] and they were doubtful whether any terms that could be offered, with a due regard to the interests of Government, would induce them at an early date to alter those arrangements, and to bring their gold to the Bombay Mint.[2] "In the absence, therefore, of an assurance that a steady and permanent supply of gold of local production would be available for coinage in this country, we prefer to drop the scheme for the present, leaving its revival to the existence or revival of conditions which cannot at present be foreseen." In February 1903 the Secretary of State agreed with the proposal to drop for the present the idea of a Bombay branch of the Royal Mint. The question was revived in the Imperial Legislative Council in 1911 and 1912. In the latter year a Resolution was brought forward "that this Council recommends to the Governor-General in Council that the Indian Mints be now thrown open to the free coinage of gold in coins of suitable denominations." A ten-rupee piece was suggested, and the Resolution was withdrawn on the

[1] The annual production of gold in India has been approximately £2,000,000 since 1900, or 2½ per cent of the world's production.

[2] It was announced in June 1919 that negotiations had been concluded by which approximately one-half of the monthly production by the Mysore, Champion Reef, Ooregum, Nandydroog, Balaghat, and North Anantapur Gold Mining Companies would in future be disposed of to the Government of India.

Financial Member of Council promising that the matter would be placed before the Secretary of State. In May 1912 the Government of India addressed the Secretary of State and submitted proposals for the coinage of sovereigns at Bombay. The chief ground in favour of the measure was that it would attract to the Mint uncoined gold held in India which, since the issue of a notification dated December 11, 1906, had not been received at the Mint. Previous to that date Government received, as we have seen, refined gold at the Bombay Mint in exchange for notes or rupees. The Secretary of State, in his despatch of October 18, 1912, was of opinion that, having regard to (1) the ease with which holders of gold bullion in India could, as a rule, exchange it for currency, whether sovereigns, notes, or rupees, if they wished to do so, and (2) the probability that the gold imported into India was so imported because it is preferred in that form rather than that of coin, the adoption of the Government of India's proposal would not be likely to have any considerable effect of the kind that was anticipated, but that the experiment was worth trying if it could be done at a moderate expense, or on a self-supporting basis. The Secretary of State communicated with the Treasury, which offered two alternatives, viz.: (1) that a branch Mint be established at Bombay solely for the coinage of gold under the supervision of the Royal Mint and His Majesty's Treasury; and (2) that the control of the whole of the existing Mint at Bombay be taken over by His Majesty's Government, who would accept at the expense of India the responsibility for an establishment producing not only British gold coins but also coins for circulation in India, that is, silver and nickel.

The Secretary of State was prepared to sanction the issue of a separate Indian gold coin of, say, R. 10, if both of these alternatives proved unacceptable to the Government of India. Government indicated a preference for this over both the alternatives proposed by the Treasury; but the whole matter was left open pending the recommendations of the Chamberlain Commission.

The Chamberlain Commission did not believe that the mere fact of gold being coined in India would give confidence in the policy of the Committee of 1898. It would not facilitate the free inflow of gold to India, and it was not required for currency or exchange purposes. "Nor is it likely that the facilities for converting gold bullion into coin which such a mint would provide would have any appreciable effect on the amount of gold withdrawn from circulation or would encourage gold to come out of hoards in unfavourable seasons. It is quite true that at times of famine and distress gold must come out of hoards, but we see no reason for believing that the amount so forthcoming would be increased by the opening of a mint for gold. The public in any case would secure equal advantages if the Government of India were to renew the notification, withdrawn in 1906, of their readiness to receive refined gold at the Bombay Mint in exchange for notes or rupees." The Commission did not recommend a gold mint, but they had no objection to its establishment provided that (1) Indian sentiment genuinely desired it, (2) Government were prepared to incur the expense, and (3) the coin to be coined was the sovereign or half-sovereign. If a gold mint were not established, the Commission suggested that Government should renew the notification to receive refined gold at the Bombay Mint on suitable terms.

In Chapter III. the coinage of gold mohurs from 1918 at the Bombay Mint as a temporary arrangement has already been touched upon. It will be recalled that in order to ensure that gold imported into India is used in the most effective possible way for strengthening the Indian currency position, an Ordinance, known as the Gold (Import) Ordinance, No. III., dated June 29, 1917, was issued. This was superseded by the Gold (Import) Act XXII. of 1917. The gold acquired was placed in the Paper Currency Reserve, where it increased the metallic backing of the notes. The Act is, of course, an emergency measure intended to continue during the war and for six months after, by which time the recommendations of the Currency Committee of 1919 may be available. It was necessary in order to relieve the strain on the silver balances to coin this into gold mohurs and sovereigns, since much of the coin imported under Act XXII. was in the form of foreign coin and bullion. At first (*i.e.* in 1917) the coinage was done in Australia, as there were unfortunately no arrangements by which gold could be readily minted in Bombay. In June 1918 an ordinance was issued to provide for the coinage of gold mohurs in Indian Mints. This ordinance was superseded in September by Act XIV. of 1918, which remains in force during the continuance of the war and for six months thereafter. The coin provided by this Act is the gold mohur or fifteen-rupee piece, which corresponds exactly in weight, fineness, and dimensions with those of the sovereign. The only difference between the mohur and the sovereign is in the designs which it bears on its obverse and reverse. In the Gazette of India of February 9, 1918, a Royal Proclamation establishing a branch of the Royal Mint at Bombay was published. It is dated December 21, 1917, and provides for (1) a branch of the Mint at or near Bombay, either in the buildings of the Indian Mint at Bombay or on such other site as the Governor-General of India in Council may approve; (2) the coinage of gold coins of the same denominations, designs, weights, and fineness as gold coins at the Royal Mint; (3) gold coins issued from the Bombay branch Mint to be legal tender as if they had been coined and issued in England. Unlike the Act regarding the coinage of gold mohurs, the Bombay Mint Proclamation 1917 is not for the war or six months after, no time limit being specified. When the coinage of sovereigns was begun on August 16, 1918, the further coinage of gold mohurs was discontinued. It is provided, however, by Act XIV. of 1918 that the coinage of these mohurs may be resumed. The outturn of gold mohurs up to March 31, 1919, was 2,109,703.

The imported staff for the Bombay branch of the Royal Mint consisted in March 1919 of a Deputy Master and Assayer (one person) and a Chief Clerk. The remainder of the staff were Indians, most of whom were lent by the Bombay Mint. The number of sovereigns minted from August 16, 1918, to March 31, 1919, was 1,295,372. The position at the beginning of March 1919 was that the Bombay Mint did the melting, assaying of the pots, rolling, adjusting, edging, and annealing, and supplied the finished blanks to the branch of the Royal Mint, which stamped, weighed, and assayed the coins, returning the good coins to the Bombay Mint. The estimated cost of the branch of the Royal Mint is R. 54,000 (£3600) annually. The amount considered necessary by the Treasury is placed at the disposal of the Deputy Master annually by the Government of India, and the surplus, if any, after audit by the Treasury, is returned to the Government of India. Any comparison of cost between this small branch (which does little of the total work of minting) and other branches of the Royal Mint is hardly possible. The establishment charges (including contingencies and pensions) of other branch Mints of similar capacity were in 1915 as follows:

	Coinage.	Charges.	
	£	£	
Sydney . . .	1,792,000	14,435 *	Pages 77 and 78 of Report of Deputy Master of the Royal Mint.
Melbourne . .	1,701,000	17,859	Pages 92 and 93.
Perth . . .	4,442,000	20,206	Pages 111 and 112.

* Expenditure under estimate.

The Australian branch Mints recover a substantial portion of their expenditure by the levy of charges for the coinage of gold as allowed by Section 11 (8) of the Coinage Act of 1870. There is no corresponding charge or seigniorage in the Bombay branch Mint. There is also in course of erection a refinery for gold in the Bombay Mint. This has no connection with the Royal Mint. The chlorine process will be used. The coinage of gold in Bombay was certainly a relief to the rupee balances and, assisted by the release of sovereigns in 1917 and 1918, proved useful at a time when it was doubtful whether they could stand the strain of further demands to purchase wheat for the Royal Commission. This experience was a new reason in favour of a gold mint. The gold had, it is interesting to note, a very limited life as currency, and shortly after issue found its way mainly via Bombay to the melting-pot or into private hoards. The Controller of Currency (Mr. M. M. S. Gubbay) remarks that "*qua* currency doubtless these sovereigns had a limited function; but they undoubtedly operated as such when paid out initially by the wheat-purchasing firms to their sellers or agents, though subsequently they admittedly passed from hand to hand as commodities. It is true that only in rare cases did these sovereigns reach the actual producer, with whom the wheat-purchasing firms are unable to get into touch save in a very few localities. Where, as in one of the cotton-growing districts of Bombay, special measures were taken to secure the direct payment of sovereigns to the producer, it was found that the sovereigns thus paid out were immediately sold for silver."[1] The total issues of gold for the financing of wheat in 1917–18 were R. 9,22 lakhs (£6,000,000), and in 1918–19, R. 1,84 lakhs (£1,250,000).

The experience of the war has been of value in this as in many more ways, and the entire question will be reconsidered by the Indian Currency Committee of 1919.

[1] Report on the Operations of the Currency Department, etc., 1917–18 (Superintendent, Government Printing, India, Calcutta).

CHAPTER XI

COUNCIL DRAFTS

COUNCIL drafts, both bills and telegraphic transfers, are in normal times sold by the Secretary of State in London on Calcutta, Bombay, and Madras, primarily to meet his requirements, present and anticipated, on India's behalf. Since the war, Council drafts have been sold mainly in the interests of trade. The requirements of trade will perhaps, in the future, even outweigh in importance the requirements of the Secretary of State unless a sufficient supply of the precious metals is ordinarily obtainable at favourable rates for import on private account into India to settle the balance of trade. These sales give to the Secretary of State a commanding position in regard to Indian exchange and are the key to the working of the currency machine.

We do not propose to trace in detail the history of these drafts. An interesting account of the mooting of the question of such sales in 1813, the working of the system from 1834 to the Mutiny, its almost entire suspension from 1857 to 1862, and its development from its re-introduction in that year, are described in Sir Henry Waterfield's Memorandum on the "System of effecting Remittances from India," published as an appendix [1] to the Fowler Committee's Report. The change from monthly sales at a fixed rate of exchange to fortnightly and then to weekly sales, the introduction of tenders for telegraphic transfers as well as for bills, and the changes which the war necessitated, are of considerable interest from an historical point of view.

We turn, however, to an examination of the present system from the time that the total drawings are placed in the Budget until they are actually sold. The Government of India frame their estimate of the amount which they consider may be remitted to the Secretary of State through the sale of Council drafts in order to meet the Secretary of State's expenditure on revenue and capital account. They take into consideration the various likely demands on Treasury balances and aim at having sufficient closing balances on March 31 in each year. The next step is to examine the distribution of these drawings over the twelve months. The slack season begins in April and ends in the latter weeks of September. This is, of course, a season of dull demand for drafts. If the season were very favourable and trade abnormally active, the Secretary of State might be able to withhold his drafts until the latter part of the busy season. This is ordinarily not possible or advisable, because the Secretary of State requires funds for the first as well as for the second half of the financial year, and a good market for Council drafts cannot be seen until the monsoon is wellnigh complete. Since there are so often surprises in the vagaries of the monsoon, it is ordinarily unwise to postpone the sales until the

[1] Cd. 9376, 1899; cf. also the late Mr. Newmarch's Memorandum, p. 217, Appendix VII. Chamberlain Commission Report (Cd. 7070, 1913).

second part of the year. The policy followed is to regulate both the time and amount of the sales of Council drafts throughout the year in order to lay down most efficiently the funds in London. Government aim at drawing from the treasuries during the year (1) the amount budgeted for to carry out the Ways and Means programme of the year; (2) additional amounts required to purchase silver for coinage that have not been provided for in the budget; and (3) funds which in a prosperous year may be used to reduce or avoid debt. At the same time it is necessary to allow a sufficient quantity of sovereigns to flow to India to satisfy public demands. It may also be necessary in order to avoid stringency to exceed budget allotments and sell freely to convenience trade. This may not only relieve stringency in the Indian money markets and check excessive and burdensome accumulations of gold in the Paper Currency Reserve (which would have to be shipped by Government to purchase silver), but would also avoid stringency in London. If large amounts of gold were taken off the London money market and the effects were to stiffen up rates and create a stringency, Indian trade would be injured. The Exchange banks, if they had to discount at 7 per cent instead of 3 per cent, would be less eager to discount, less eager to buy export bills in India, and less willing to use their money for trade purposes in India. The buyer or customer in London and also the seller in India are both hit by this stringency.

The actual selling of the bills was, before the war, as follows: On each Wednesday a notice was exhibited at the Bank of England calling for tenders to be submitted on the following Wednesday for telegraphic transfers and Council bills. The notice gave the aggregate amount that was to be sold. The Secretary of State did not bind himself to allot the whole amount mentioned in the notice, and did not accept any applications below a minimum price. The price charged for telegraphic transfers before December 20, 1916, was higher by $\frac{1}{32}$d. per rupee than the rate for bills, except when the Calcutta or Bombay bank rate exceeded 8 per cent, when telegraphic transfers were sold at $\frac{1}{16}$d. higher. Allotments were made to the highest bidders, and when the total tenders exceeded the amount offered, these were made *pro rata.* After the sale at the Bank of England on Wednesday the amount to be offered on the following Wednesday was decided on, the main factors being the Secretary of State's requirements, the amounts still to be sold to work up to the estimate of the financial year, and other information such as the demand for drafts, trade conditions, etc. "Intermediates" or "specials" were bought on other days of the week at not less than $\frac{1}{32}$d. higher than the lowest prices at which allotments were made on the preceding Wednesday. The maximum amount and rate of "intermediates" were fixed for the week on each sale day. The arrangements made on Wednesday were brought before the next meeting of the Finance Committee of the Secretary of State's Council, usually on the same day, and subsequently before the Council itself, for approval. This was, in brief, the method in vogue before the restrictions of Jan. 1917.

Since the war certain changes have taken place. The Secretary of State as a temporary war measure exercised a special control over the sales of Council drafts by fixing the rates himself in order to control the rate of exchange. Since December 1916 these sales, therefore, have not been at rates tendered by prospective buyers of the drafts, but at rates fixed by the Secretary of State. These sales, moreover, have been confined to persons on the Secretary of State's approved list, and the amount for which each bank or firm can apply is also fixed. The Secretary of State makes the allotments on such applications. Other changes are that the sales now take place on Tuesdays, and shortly after the outbreak of war a system of "deferreds," payable sixteen days after issue, was introduced. Since then practically no "bills" have been sold, the sales being almost entirely telegraphic transfers and "deferreds."

The proceeds of the Council drafts are ordinarily placed to the credit of the Secretary of State's Treasury balance, and on occasions when necessity demands, to the London branches of the Paper Currency Reserve or Gold Standard Reserve. The payments in India are met in a corresponding way from Treasury in India or from the Indian branches of the Paper Currency and Gold Standard Reserves. In a period of weak exchange the Secretary of State suspends his sales, and the Government of India, if necessary, support exchange to the full extent of their resources by issuing reverse (*i.e.* gold or sterling) drafts, telegraphic transfers and deferred transfers, and bills on the Secretary of State. Statistics of the sales of these reverse drafts drawn on the Secretary of State, as well as those of Council drafts on the Government of India, are given in a table at the end of the book.

The growth in the function of Council drafts since 1893 is of special interest. Up to the closing of the

Mints to the free coinage of silver, the weekly sale of Council drafts was merely for the purpose of laying down in London sufficient funds to meet the home charges. After 1893 there was a temporary suspension of sales to force up the exchange value of the rupee. Under the Gold Note Act (II. of 1898) Council drafts were sold against "ear-marked" gold at the Bank of England belonging to the Paper Currency Reserve and paid for in India by notes issued against such gold. This was not merely to place the Secretary of State in funds, but to provide a means of expanding the currency as an alternative to shipping sovereigns to India on private account at a time when the Government of India had no surplus Treasury balances to meet these drafts. Council drafts from this time onwards were sold as a means of avoiding the useless accumulation of gold in the Paper Currency Reserve in India, which, when silver was required, had no longer to be exported at Government expense to purchase silver. The "ear-marked" gold in the Paper Currency Reserve in London could be drawn on for this purpose. The Secretary of State, before the war, undertook to sell Council bills without limit at 1s. $4\frac{1}{8}$d. per rupee, and also to sell drafts against gold in transit from Australia or Egypt to India, which was thus diverted to London.[1] In 1909 Council drafts were also sold after the exchange crisis of 1907-8 to bring back the Gold Standard Reserve funds to London, where they would be ready for a falling exchange. This is now a recognised means of transferring the profits of rupee coinage from the Indian to the London branch of the Gold Standard Reserve.

[1] See Chapter VI. p. 209.

While the main function of Council drafts is thus to meet the Secretary of State's annual requirements for home charges on revenue account (£20,000,000) and to meet capital expenditure (£6,000,000), it is also necessary to meet trade demands up to such an amount that the favourable balance of trade may be settled over and above the amount of the home charges on revenue and capital account without the export of more gold to India than is actually required for absorption by the public.

One of the main criticisms of the Chamberlain Commission on the management of the sale of Council drafts was that the drafts were sometimes sold at very low rates when the London balance was not in need of replenishment. The Commission, however, did not recommend any restrictions upon the absolute discretion of the Secretary of State as to the amount of drafts sold or the rate at which they are sold, provided that the sale is within the gold points. Whether the drafts are sold against Treasury balances or the Reserves, the amount and occasion of sales should in the main be fixed with reference to the urgency of the Secretary of State's requirements. The selling of drafts at a fixed rate was not recommended by the Chamberlain Commission. The reason given by the Commission against selling at a fixed rate was that Government are not monopolists in the exchange market, and it seemed (as it certainly did before the war) problematical as to whether Government could stand out for the fixed rate at all times of the year. The uncertainty of regularity of sales involved in this would make larger normal balances in India necessary. It is sometimes suggested that the Secretary of State should never sell below par.

On this the Chamberlain Commission reported as follows:

> The effect of the proposal, whatever might be the lower rate adopted, would be to limit the range of variation of exchange. With the general object of this proposal we have some sympathy, since the range at present is extensive and must discourage the free movement of capital between India and other countries. Nevertheless that range, depending as it does on the cost of freight and insurance to India, is the natural range, and any restriction of it would impose additional responsibilities on the Government, for which we find no adequate justification. We consider, therefore, that the Government should continue to follow the market rate, effecting their remittances whenever they find it profitable to do so. In other words, the propriety of the transactions of Government in the exchange market must be judged with reference to the urgency of their requirements and the rate obtainable.

Before the rise in exchange in 1916 any rates below 1s. $3\frac{29}{32}$d. for bills and 1s. $3\frac{15}{16}$d. for telegraphic transfers were not accepted. Bills were sold without limit at 1s. $4\frac{1}{8}$d. and transfers at 1s. $4\frac{5}{32}$d. if the Indian bank rates did not exceed 8 per cent, and 1s. $4\frac{3}{16}$d. if they exceeded that rate. On December 20, 1916, when the Secretary of State limited his weekly sales to 80 lakhs, he also *fixed* the rates at 1s. $4\frac{7}{32}$d. for telegraphic transfers and 1s. $4\frac{1}{8}$d. for deferred transfers (payable 16 days from date) and bills. The following table summarises the changes from this date in exchange:

[TABLE

X

COUNCIL DRAFT RATES IN WAR TIME

Dates on which rates were fixed by the Secretary of State.	Telegraphic transfers.	Deferred transfers * and bills.†	Difference in price between telegraphic transfers and deferreds.
December 20, 1916 . .	1s. $4\frac{7}{32}$d.	1s. $4\frac{1}{8}$d.	$\frac{3}{32}$d.
January 3, 1917 . . .	1s. $4\frac{1}{4}$d.	1s. $4\frac{5}{32}$d.	$\frac{3}{32}$d.
August 29, 1917 . . .	1s. 5d.	1s. $4\frac{29}{32}$d.	$\frac{3}{32}$d.
April 12, 1918 . . .	1s. 6d.	1s. $5\frac{29}{32}$d.	$\frac{3}{32}$d.
May 13, 1919 ‡ . . .	1s. 8d.	1s. $7\frac{15}{16}$d.	$\frac{1}{16}$d.

* Payable 16 days after issue.
† Payable on arrival of bills in India.
‡ These rates have subsequently been altered as follows: With effect from August 12, 1919, 1s. 10d. for immediate telegraphic transfers, and 1s. $9\frac{15}{16}$d. for deferred telegraphic transfers and bills. See Addenda and Corrigenda, p. 484.

The large sales of drafts at a time when War Office payments to the India Office were more than sufficient to meet the Secretary of State's requirements entirely have already been dealt with in Chapter III. These changes were not lightly taken. In explanation of the policy dictating the higher rate it was announced on September 19, 1917, that the prices of Council drafts would be "those at which silver could be bought by the Secretary of State. It is not to be expected that he should sell rupees at a rate appreciably lower than that at which he can actually buy them, but he intends that considerable latitude shall be employed in the application of this principle, so that as far as possible changes may be avoided." Sir William Meyer, the Financial Member of Council, in introducing the Financial Statement for 1918–19, said with regard to this rise as follows: "I much regret any hardship imposed on our export trade by the increase which it has been necessary to make in the rate for Council drafts, and I am, of course, well aware that a rise in exchange would in ordinary conditions be prejudicial to that trade, like the limitations which the Secretary of State has found it necessary to impose on the volume of his Council drawings. Consequently, as I have repeatedly stated, we embark on any such action with the greatest reluctance, and simply to prevent greater evils. At the same time, while a rise in exchange tends, under ordinary conditions, to prejudice the export trade, it must be remembered that a country like India, which normally exports a considerably larger volume of commodities than she imports in order to discharge her external obligations—such as interest on her sterling debt, home administrative charges, and outlay on stores and plant—gains by a measure which requires her debtors to pay more for the rupees in which their payments must eventually be liquidated. Or, to put the matter in another way, a rise in exchange means that a smaller amount of India's commodities, as expressed in rupees, will have to be sent abroad in order to provide for a specified amount of payments in sterling, and that she herself will have to pay less for the imports she obtains."

The whole procedure of the sale of Council drafts is now under review by Sir Henry Babington Smith's Currency Committee, at present (July 1919) sitting in London. On receipt of the Committee's report, modifications of the present practice may be introduced.[1]

[1] See Addenda and Corrigenda, p. 484.

CHAPTER XII

BALANCES

I

Introduction

In this chapter we propose to deal with the working balances in India and in London. We exclude the non-Treasury balances, viz. the balances belonging to the Gold Standard Reserve and the Paper Currency Reserve. We refer only to the working balances in India and London—Treasury balances. These working balances in India, as we have seen in Chapter II., are not only for meeting the current expenditure on revenue and capital account of the Government of India and Provincial Governments, but also the expenditure of district and sub-district boards and municipalities which bank with Government. These balances, too, include the deposits of savings banks and miscellaneous funds. The working balance in London is to provide ways and means for expenditure incurred in the United Kingdom by the Secretary of State on behalf of the Government of India. On revenue account this expenditure (amounting in the year ending March 31, 1918, to £24,000,000) includes the expenditure on the interest and management of debt, stores, as well as pensions, salaries, and other charges. Large sums are also required on capital account, *i.e.* for capital expenditure in London mainly in connection with railways and irrigation works in India. The repayment of temporary debt and the guaranteed debentures and bonds of Indian railways, whether the money for such repayment is borrowed or not, makes considerable inroads on this balance. It will be seen that Indian balances have no analogy with those of the British Government. Indian balances in the first place include funds which have no parallel with the funds which go to make up the British Government deposits. Such funds, unlike those of the Government of India, are practically held entirely in one place, at the Bank of England. A small balance, it is true, is kept at the Bank of Ireland. That, however, is unimportant.

Indian balances are kept in treasuries and sub-treasuries, at the head offices and branches of the Presidency banks, and in the Reserve treasuries. On March 31, 1919, 28 per cent of the closing balances were in treasuries and sub-treasuries, 45 per cent in the head offices of the Presidency banks, and 13 per cent at their branches; the remainder, 14 per cent, was held in the three Reserve treasuries. In the pre-war quinquennium a much larger percentage was kept in Reserve treasuries, but since that date, as we shall see, there has been a change of policy. The head offices of the Presidency banks held a correspondingly larger share. This interesting fact is brought out in the following table:

[TABLE

INDIAN CASH BALANCES

(In lakhs of rupees.)

Last day in March.	Treasuries.	Head offices of the Presidency banks.	Branches of the Presidency banks.	Reserve treasuries.	Total.
Pre-war average (1910–14) .	9,42	2,08	2,81	7,60	21,91
1915 . . .	10,17	2,62	3,33	6,05	22,17
1916 . . .	8,52	2,15	3,76	3,59	18,02
1917 . . .	8,26	5,95	4,17	4,56	22,94
1918 . . .	7,57	9,55	3,40	2,47	22,99
1919 . . .	7,25	11,81	3,33	3,58	25,97
Five war years' average .	8,35	6,42	3,60	4,05	22,42

The number and percentage share of each on March 31, 1919 and previous years were as follows:

	Number on March 31, 1919.	Pre-war average, 1910–14.	War average, 1915–19.	March 31, 1919.
District treasuries . .	272	43	37	28
Presidency banks— .				
Head offices. . .	3	9	29	45
Branches . . .	42	13	16	13
Reserve treasuries .	3	35	18	14
Total . . .	320	100	100	100

District treasuries include sub-treasuries, which are merely centres for collecting revenue. Very few payments are made by sub-treasuries. Sub-treasury surpluses are sent at frequent intervals to the district treasury, and in some cases are, for convenience, remitted to a neighbouring treasury, especially when that treasury is short of funds. In each district there is one treasury, and attached to that treasury are two or more sub-treasuries. The whole of the district revenue, whether in the form of land revenue, excise, stamp duties, etc., comes in irregularly both as regards dates and amounts. At the district headquarters the expenditure includes that for ordinary administration, roads, schools, hospitals, in some cases for troops, commissariat, transport, and, if the station happens to be a particularly healthy or bracing one (and therefore a favourite resort of pensioners), also for pensions. The net outgoings are at times high, and a balance to meet this must be kept. Of these district treasuries the majority are medium treasuries, *i.e.* their transactions annually are from 75 to 200 lakhs. Treasuries whose transactions are over 200 lakhs a year may be classed as large treasuries, of which Madras has the highest number (12 out of 44). Next in importance in this respect to Madras are Bombay and the United Provinces. The United Provinces possess the largest number of medium treasuries, and Burma and the Punjab the largest number of small treasuries, *i.e.* under 75 lakhs. There are some treasuries, especially in Burma and Madras, which have considerable surpluses of income over expenditure, and "supply bills" and "telegraphic transfers" are ordinarily sold on these by the Accountant-General in places where there are deficit treasuries. In the United Provinces there are 49 treasuries, 40 in Burma, 30 in Bombay, 29 in the Punjab, 27 in Bengal, 25 in Madras, 22 in the Central Provinces, 20 in Behar and Orissa, 13 in Assam, and 13 mainly in Indian States, *i.e.* political. These "political" treasuries do not have the usual fluctuations that are due to different seasons of revenue collections. Of the total number of treasuries 46 per cent are medium, 38 per cent small, and 16 per cent large.

Next as to the balances at Presidency banks and their branches. Under agreements with the Presidency banks, minimum balances of R. 35 lakhs at the Bank of Bengal, R. 20 lakhs at the Bank of Bombay, and R. 18 lakhs at the Bank of Madras—a total of R. 73 lakhs—are kept at the head offices. Government have undertaken to pay interest on any deficiency at the current rate of demand. In practice the actual Government balances are much higher, especially during the busy season, and, since the new policy subsequent to 1913 described below, these balances have been very much higher. There was also a working arrangement with the Banks of Bengal and Bombay under which the Government balances at their head offices were not, as a rule, allowed to exceed 100 and 50 lakhs respectively, and the Banks were liable for interest when excesses over these sums occurred and objection was taken to their withdrawal. In 1899 the Secretary of State, while leaving to the Government of India their traditional discretion in the management of the Treasury balances, stated that loans to Presidency banks should not as a rule be granted at a rate of interest below the prevailing bank rate. Subsequent to this, six loans only have been made to the Presidency banks, viz. two in 1901, one in 1902, one in 1905, and two in 1906, the amounts varying from R. 20 to R. 40 lakhs. In a despatch dated September 25, 1913, the Government of India said : [1]

For the last six years we have received no application for a loan from any of the three banks, and this fact we attribute, not to a plentiful supply of funds throughout these years in the commercial centres of the country, but to the existence

[1] Despatch of the Government of India to the Secretary of State, No. 268, dated September 25, 1913, para. 3.

of the above-mentioned condition regarding interest. If loans are to be granted only at the current market rate, it is only natural, we think, that the Presidency banks should find themselves in the position either of having to refuse such assistance, or of being obliged further to raise their own rate; otherwise they would obtain no remuneration for the work done and for the risk taken by them.

Government were of opinion that short-term loans should be made to Presidency banks at 1 per cent below bank rate as a special case with reference to the coming busy season alone, the loans being against the security of rupee paper, and only when some high bank rate such as 7 or 8 per cent had been reached or was about to be reached. The Chamberlain Commission supported this. Sir William Meyer, in introducing his last Financial Statement (that for 1918–19), referred with just pride to this policy of a more liberal utilisation of the funds of Government to secure relief to commercial and financial interests in time of stringency. "It has been my consistent policy," he said, "to give proof of this desire by making temporary loans (as has been done on occasion) to the Presidency banks; by leaving in deposit with them, till actually required by us, the proceeds of our public loans; by avoiding as much as possible the lock-up of funds in our 'Reserve treasuries'; and by the maintenance with the Presidency banks of balances at all times considerably, and at certain periods far, in excess of the standards previously observed. It is largely owing to action of this character that it has been possible to secure the money market against the strain to which our war finance must otherwise have exposed it, and in particular to raise the large sums we have recently obtained by way of loan without materially inconveniencing the market." It is unnecessary to add in this connection that Government hold no part of their balances with banks other than the Presidency banks. In the case of the branches of Presidency banks there is no definite agreement regarding the balances to be kept, but to encourage the opening of new branches a maximum balance for a certain number of years has in recent years been guaranteed. The money, therefore, belonging to Government at such branches is not entirely free money. The branch merely takes the place of the treasury. The amount of such balances is fixed by the Accountant-General with reference to the demand of the particular treasury, and is drawn away, as in the case of district treasuries, when it becomes too large. Government deposits in the Presidency banks in recent years as compared with the pre-war average are set out below.

GOVERNMENT DEPOSITS AT THE THREE PRESIDENCY BANKS

(In lakhs of rupees.)

Last week of March.	Bank of Bengal.			Bank of Bombay.			Bank of Madras.			Grand total.
	Head office.	Branches.	Total.	Head office.	Branches.	Total.	Head office.	Branches.	Total.	
Pre-war average (1910–14)	85	1,42	2,27	70	1,21	1,91	40	45	85	5,03
War average (1915–19)	2,98	1,40	4,38	2,49	1,22	3,71	64	72	1,36	9,45
1915	98	1,53	2,51	79	1,42	2,21	56	51	1,07	5,79
1916	97	1,38	2,35	48	1,40	1,88	52	64	1,16	5,39
1917	3,74	1,44	4,91	2,48	1,20	3,68	53	88	1,41	10,00
1918	3,04*	1,18*	4,22*	4,47	1,24	5,71	82	71	1,53	11,46
1919	6,47†	1,44†	7,91†	4,25‡	83‡	5,08‡	78	86	1,64	14,63

* Figures for week ending April 2. † Figures for week ending April 1.
‡ Figures for week ending April 5.

The Reserve treasuries were the outcome of the unsatisfactory nature of the agreements with the

Presidency banks of January 2, 1866. By that agreement Government were to keep a cash balance at the head offices of the banks as far as possible limited in amount—70 lakhs at the Bank of Bengal, 40 lakhs at the Bank of Bombay, and 25 lakhs at the Bank of Madras.[1] The banks were allowed to use the whole of the balances for banking purposes, and interest was to be paid by Government when the Government balance at the head offices fell below a minimum, the minimum being in the case of the Bank of Bengal 45 lakhs, of Bombay 25 lakhs, and of Madras 20 lakhs. At the branches no maxima or minima were fixed. The banks were free to employ the whole of the balances at branches for banking purposes, subject to the condition that each branch should meet the drafts of Government at all times to the extent of the Government balances at the branch. In 1874 the arrangements entered into eight years previously were found to be still imperfect. There was scarcity in Bihar and North Bengal, and Government had to import from Rangoon rice for relief purposes. The Bank of Bombay was informed that Government would require 30 lakhs, their balance at the Bank being then almost a crore. The Bank of Bombay was unable to meet Government's demands, and the Government of Bombay telegraphed to the Viceroy warning the Government of India that it was "placing the Exchange banks and the trade of Bombay in great danger," and that if it drew on the Bank of Bombay there would be a general panic. Under the agreement Government had promised to keep a minimum of 25 lakhs, and thus when the money was

[1] These amounts, fixed in 1866, were revised as explained seriatim in this chapter (see above).

urgently required they were deprived of the use of R. 75 lakhs. The trouble had not arisen, as in the case of the Bank of Bengal in 1863, from over-investment in Government securities. The Bank held at the time only about R. 30 lakhs of Government securities of its own, and it had lent money on R. 42½ lakhs. It had discounted no less than about 140 lakhs of bills, and herein was the difficulty. There appeared to be an insufficiency of the Bank's capital as compared with the Government deposits in the Bank. The Government of India, therefore, suggested to the Secretary of State that the banks should have the use of only a portion of the balances. It was proposed to hold the remainder as an independent reserve by Government which could be drawn on in times of financial crisis and famine. The size of this reserve was to be 2 crores. "I agree," said the Secretary of State, "with your Excellency in the doubts you express as to the real value of artificial facilities which arise from large Government balances with the banks. Capital supplied by Government, and not representing the savings of the community, is a resource on whose permanence no reliance can be placed, and which therefore tends to lead traders into dangerous commitments. It gives ease for a time, and produces a prosperity which is at the mercy of an accident. . . . It will be competent for your Financial Department either to retain it in the Treasury, or to lend it for short terms under suitable conditions as to interest and security." This proposal of lending money in India itself on short loan was not put into practice. Mr. Chapman, the Financial Secretary at that time, thus crystallised the view then held, viz.: "We should be seldom able with any advantage to lend money in this way in the interior. We might do so, sometimes, at the Presidency towns. But this would involve serious competition with the Presidency banks; and I should be inclined to lend money, if at all, usually *through them*. . . . I am disposed to fear that if the Government enters into competition with the banks, it will inflict upon them a grave injury; and I should prefer not to attempt it. This project, moreover, seems to me to be inconsistent with the policy of the Government of India which intends to prevent all dependence by trade, directly or indirectly, upon the Government balances." In 1876 the new agreements based on the despatch of May 1875 came into force. Government undertook not to allow the balances to fall below a certain minimum, and should they fall below the minimum the Government of India agreed to pay as before interest to the banks, and at the same time they were careful not to mention any maximum. They said as a rule the cash balances at the Bank of Bengal would be R. 100 lakhs, at the Bank of Bombay R. 50 lakhs, and at the Bank of Madras R. 30 lakhs. This, however, was not inserted in the agreement. A Reserve treasury was in the same year formed at Calcutta, and in 1879 it was decided to establish Reserve treasuries at Madras and Bombay. It is interesting to read the history of the establishment of these Reserve treasuries in the light of Sir William Meyer's statement above. In the interval the Presidency banks have, of course, greatly increased their resources.

The balance in London is kept at the Bank of England, and to a very small extent in the India Office. A minimum balance of £500,000 is by a long-standing agreement kept at the Bank of England, where by

Act of Parliament the account of the Secretary of State must be held in the United Kingdom. A trifling sum, till money, is held by the Accountant-General, and a few sub-accountants of the India Office. The remainder is placed on temporary loan in the City and earns interest.

II

Minimum Cash Balances

The minimum working balance in India is normally reached in November or December, and this minimum is, in ordinary circumstances, £8,000,000. Since the withdrawals from Government treasuries exceed incomings between April 1 and March 31, it is usual to budget for an opening balance on April 1 of over £12,000,000. This is arrived at from experience after an examination of the Resource operations (*i.e.* the machinery by which treasuries are kept in funds). The importance of periodically reviewing the amounts so held in order to secure economy of balances and to take advantage of every facility for remittance in these days of increased communications is not lost sight of. The minimum working balance required in London is normally £4,000,000, which is not excessive in view of the large payments that fall due at the beginning of each quarter. Of the closing balance on March 31, £4,000,000, more than one-half is required for interest payments at the beginning of April. The India Office frames its Ways and Means on the amount which the Government of India can meet from Council drafts throughout the year, and arranges to borrow the remainder, budgeting for a closing balance on

March 31 of about £4,000,000. If this is in excess the India Office reduces its borrowings or increases the estimate of capital expenditure for the new financial year. The balance at the end of this financial year is, as in India, brought down to normal as far as possible.

III

Cash Balances and Budgeting

We must now traverse the wilderness of the financial statements in order to elucidate the statistical position regarding cash balances. When all is said and done, we find that the normal closing balances of a shade over £16,000,000 have not been worked down to since 1908. The closing balances in India and in London (to the nearest million sterling) were as follows :

Closing Balances

March 31.	India (normal £12¼ m.)	London (normal £4 m.)	Total (normal £16¼ m.)	Increase (+) or decrease (−) per cent. over normal.		
				India.	London.	Total.
1908 . .	13	5	18	+ 5	+ 25	+10
1909 . .	10	8	18	−19	+100	+10
1910 . .	12	13	25	− 3	+225	+53
1911 . .	13	17	30	+ 5	+325	+84
1912 . .	12	18	30	− 3	+350	+84
1913 . .	19	9	28	+54	+125	+71
1914 . .	16	8	24	+30	+100	+47
1915 . .	15	8	23	+22	+100	+41
1916 . .	12	7	19	− 3	+ 75	+16
1917 . .	15	5	20	+22	+ 25	+22
1918 . .	15	11 *	26	+22	+175	+59
1919 † . .	17	9 ‡	26	+38	+125	+59

* Excludes the special reserve of £20,000,000.
† Provisional.
‡ Excludes the special reserve of £7,000,000.

No one would regard the balances of 1908 and 1909 as unreasonably high. The balances of the four years 1910 to 1914 were responsible for considerable criticism in India as well as in London. As a result of this the first term of reference to the Chamberlain Commission, it will be remembered, was "to inquire into the location and management of the general balances of the Government of India." We shall see, when we look back on these years with the wisdom that comes from experience, that there was great moderation practised in the estimates of all ordinary revenues, and that this moderation was based on reasons not hastily or lightly entered upon. In regard to the closing balances in war time a greater strain was placed on the balances in India. Large and frequently unexpected payments had to be made in India against payments by the Home Government to the Secretary of State in London which could not, except by silver purchases, be remitted to India. Such purchases were, as we have seen, a question of the greatest difficulty, being limited by the difficulty of obtaining silver. In all these cases a large balance means in plain language that there was an excess of net receipts over the budget figure. To examine the reasons of this truism we must turn to the excess of surpluses over the amounts actually budgeted for in each year. These were as follows:

[TABLE

(In thousands of £ sterling.)

Year ending March 31.	As budgeted for.			Actuals.		
	Surplus (+) or deficit (−).			Surplus (+) or deficit (−).		
	Imperial.	Provincial.	Total.	Imperial.	Provincial.	Total.
1908 .	+ 775	− 443	+ 332	+ 306	−1,021	− 715
1909 .	+ 571	− 525	+ 46	−3,738	− 667	− 4,405
1910 .	+ 231	− 201	+ 30	+ 607	+ 894	+ 1,501
1911 .	+ 376	− 622	− 246	+3,936	+1,961	+ 5,897
1912 .	+ 819	−1,716	− 897	+3,940	+ 969	+ 4,909
1913 .	+1,478	−1,558	− 80	+3,108	+4,514	+ 7,622
1914 .	+1,326	−2,912	−1,586	+2,312	− 283	+ 2,029
1915 .	+1,256	−3,206	−1,950	−1,785	−2,190	− 3,975
1916 .	−2,957	−1,078	−4,035	−1,189	+ 131	− 1,058
1917 .	+ 826	− 353	+ 473	+7,478	+2,397	+ 9,875
1918 .	+ 135	− 98	+ 337	+8,087	+2,059	+10,146
1919 .	+2,582	+ 131	+2,713	−4,568 *	+ 979 *	− 3,589 *

* Revised estimate, actuals not yet being available.

Each budget provided, of course, for a reduction of the closing balance to a figure in the neighbourhood of the normal, but this good intention was frustrated by unexpected windfalls or increases in revenue, or by under-spending. In the years ending March 31, 1910 to 1914, five prosperous years, there were large imperial surpluses, and, except in 1914, also provincial surpluses. In 1917 and 1918 there were record surpluses, the surplus for the year ending March 31, 1918, being no less than £10,000,000 sterling.

In the pre-war years the causes for the high balances may be grouped into two classes—(1) high revenue surpluses, especially from opium, and (2) under-spending not on the score of intentional economy but from a real failure to expend. As to the first of these, Government were compelled to moderate their estimates. The terrible calamity from a financial point of view of the loss of opium revenue was hanging over the Finance Department. It was impossible to say what the next year would exactly bring in, because in Indian finance, as in politics, it is often the unexpected that happens. The receipts of opium, being so precarious, were deliberately estimated at a figure which they would reach under the least favourable circumstances, and the surplus over that figure was hypothecated to certain classes of expenditure, such as education and sanitation. Moderation in budgeting was required, because in India at the time when the estimates are made it has to be assumed that the harvest will be normal, and that all other factors depending on it will be equally so. The monsoon, as every one knows, is the jugular vein of Indian trade and prosperity. Everything depends on it. After Sir Edward Baker had reduced as far as practicable all the extra taxation imposed when Government were struggling against a bad exchange, there came a swift succession of misfortunes—those of 1907, 1908, and 1909, which included the famine of 1907 and the American financial crisis. When Sir Guy Fleetwood Wilson assumed office, he impressed on all the dangers and difficulties to which India and her budget-makers were then exposed. He counselled caution. One sometimes forgets how large the personal element plays in framing a budget, especially at a time of uncertainty when it is necessary to be on the safe side. Temporary reductions in the scale of taxation were out of the question, especially because the finances were faced with the disappearance of the opium revenue and with huge calls on the public purse for education, sanitation, medical, police, and the army. In these circumstances it was clearly preferable to make use of these additional resources provided by a run of good fortune in Indian finance not for the reduction of taxation (which could at the best be only temporary) but for the strengthening of the general position. The under-spending was especially marked in 1910–11, when over £3,000,000 out of £6,500,000 on capital account remained unspent in India, and £1,000,000 out of £6,250,000 in London at the end of the year. The railways were the great sinners in this respect. They could not work up to their budget estimates. Local Governments, too, which received the surpluses of revenue at the end of the year, were also unable to spend profitably and with due deliberation, and the money was put away in the provincial balances which form an item in the Imperial account until such time that the money could be spent wisely and well. The Chamberlain Commission in regard to under-spending were of opinion that much of it was attributable to Indian railway companies rather than to the Government authorities in London and India, and they suggested a plan of a settled programme of railway development providing for three or four years in advance. If this plan were properly followed up in other respects, it was thought that this would certainly reduce the under-spending. Under-spending is known, as a rule, late in the financial year, while borrowings by the Secretary of State to meet his expenditure take place earlier when the money market is favourable.

The first two years of war saw a reduction of the closing balance from £24,000,000 in March 1914 to £19,000,000 in March 1916. The actuals of these years produced a deficit, as will be seen from the table, of over £5,000,000, as against a budget estimate of nearly £6,000,000. In the two years ending March

1917 and 1918 taken together the budget actuals showed a surplus of £20,000,000 against £500,000 as anticipated. There were large increases in revenue. In 1917–18 railway receipts broke all previous records. Salt, customs, income-tax, mint, posts and telegraphs, interest, excise, and miscellaneous showed increases over the anticipatory receipts. In 1918–19 railway receipts again reached a new high record, and excise, customs, income-tax, mint, and miscellaneous were also higher than was expected. After allowing for a falling off in land revenue (owing to the deficient monsoon of 1918), higher military outlay, and a general rise in the expenses of civil departments, due in some cases to the increased allowances for the higher cost of living, there was an imperial surplus of over £2,500,000. Before the war the difficulty with regard to balances was to provide sufficient total resources to meet capital expenditure on productive works. There was no difficulty as regards the distribution of these balances, because Council drafts (by which the Government of India's funds are remitted home to pay for the outlay on material, etc.) were, as a rule, considerably less than the trade demands. Since the war, especially since 1916–17, the difficulty has been one of distribution. Owing to the large disbursements by Government in this country, the Secretary of State (who was paid in London by the Home Government and foreign Governments) accumulated abnormally large balances. In 1917–18 a special reserve of £20,000,000 invested in British Treasury bills and National war bonds, apart from the Secretary of State's ordinary cash balance, was set aside to meet liabilities (such as the temporary borrowings on Treasury bills in India) which will have to be met in future. In 1918–19 this was increased by £7,000,000. The funds are banked in London and, except in so far as the Secretary of State could purchase and remit silver to India, these resources could not be brought to India. It was necessary, it may be noted in passing, to incur a large amount of floating debt in India, and to borrow large sums from the Paper Currency Reserve as an aid to Treasury balances. A part of the receipts from Council drafts was devoted to the purchase of British Treasury bills and placed in the London branch of the Paper Currency Reserve, and an equivalent amount was added from the Indian branch to currency. In 1916–17 a part of the Council drafts paid in India was also paid from the Gold Standard Reserve, a corresponding amount being credited to the Gold Standard Reserve in London. This was an additional assistance to Treasury balances in India.

The question then resolves itself into this. The framing of estimates at the present time has an element of uncertainty, because the data to be worked on are to a certain extent both hazy and hazardous. Framing budget estimates, in other words, is a difficult task, because there is at present the unknown factor of the year's monsoon. The framer of budgets, therefore, is liable to foozle his shots sometimes disastrously. Can this be improved without spendthrift extravagance? The Chamberlain Commission on reporting on the rise of the closing balances was of opinion that the question was primarily one of estimating, and although cautious estimating was in the circumstances justifiable, it was carried rather further than was necessary. It was, at the same time, much better to err in this respect than to make too sanguine a forecast, the consequences of which involve expenditure beyond real resources and the risk of a deficit. "In the circumstances of such a country as India it is not safe to spend up to the hilt during a period of prosperity; there is everything to be said for a general policy of caution which utilises the increased resources of such a period to strengthen the financial position against the recurrence of bad seasons, and it is certain that the adoption of this policy in recent years has done much to secure Indian finance against vicissitudes in the immediate future." The Commission suggested that the financial year should be altered from April 1 to November 1 or January 1. "There may be administrative difficulties in carrying this suggestion into effect, but, financially, it would be a great improvement. Criticism directed against the inaccuracy of Indian budgeting is not effectively answered by a reference to the difficulties which arise under present conditions. It has to be shown further that these difficulties cannot be removed by a change of date without incurring graver disadvantages, and we commend the question to the consideration of the Government."

Under present conditions the budget is, as we have seen, prepared in ignorance of the most important factor of the year—the monsoon. This explains why Indian revenues differ so greatly according as the monsoon is good, bad, or indifferent. The south-west monsoon extends from June to October. If, therefore, the budget were prepared for the calendar year, it would be prepared with far greater knowledge of the consequences of the monsoon. More accurate and satisfactory forecasting of the probabilities of the Indian year would thus be possible. At the present time the budget (or, as it is called when first presented, the " Financial Statement ") is laid before the Imperial Legislative Council on March 1. In the United Kingdom the budget is presented after the new financial year begins ; in India the whole of the discussion of the next year's budget is over and done with before the new financial year commences. The budget is, of course, an amalgamation of a vast number of budgets. The District Officer prepares his budget generally four or five, even six months before the budget comes up in Council. If the year began on November 1 some of the estimates would be prepared very early in the monsoon, and these would require correction in the light of the rainfall in August and in that very important period, the third week of September. The September rainfall has a great effect on the winter crops, the great export crops.

All things considered, the calendar year would be much more suitable than the year beginning April 1 or November 1. The advantages would be that Government would have a full and complete account of the monsoon. They would know what the harvests would be and what revenue would come in during the first three or four months of the year. The winter rains, however, would by that date not have fallen. The present practice would be followed of laying the Financial Statement before Council one month before the beginning of the new financial year—*i.e.* on December 1. As Sir James Meston puts it : " We have always prided ourselves upon our virtue in that respect, that is, upon finishing the whole of the discussion before the year begins." The present financial year was introduced with effect from April 1, 1866, and it corresponded with the British financial year, which had been introduced in 1855.[1] In 1864 it was proposed in the House of Commons that, in order to enable the annual statement as to the finances of India to be made at an earlier period of the session, the official year should begin on April 1 and close on March 31. The matter was revived in 1866, and a Resolution, published in the Gazette of India, and dated May 1, 1866, opened with the following decision:

> After carefully weighing the advantages and disadvantages of the adoption of the calendar year, or of the *Fusli*[2] year, the Governor-General in Council has come to the conclusion that it would be best to antedate the present financial year by a month only, thereby making it terminate simultaneously with the official year in England, viz. March 31.

At the present time in India there are three years in use: (1) the official year,—this is the year for financial purposes; it is also used for most of the trade statistics, although Chambers of Commerce have recently signified their preference for the adoption of the calendar year; (2) the calendar year,—this is used for returns relating to tea, coal, justice, crime, and vital statistics, and is the usual year for commercial and industrial purposes; and (3) the *Fusli* or agricultural year, which ends on June 30 in all the provinces except in Assam, where the year ends on March 31, and the Central Provinces and Berar, where it ends on May 31. The two main advantages of the adoption of the calendar year are (1) greater accuracy in budgeting, and (2) uniformity with the

[1] From the earliest times, certainly from 1508 to 1799, the year ended at Michaelmas (then October 10); from 1800 to 1832 the year ended on January 5; from 1833 to 1854 it ended on January 5, March 31, and April 5. The reform of adopting a financial year ending on one date, March 31, was carried out for the first time in the year ending March 31, 1855. The new financial year started on April 1, 1855.

[2] Agricultural.

business year of Indian commerce and industry. It may be essential to brush aside formulas and conventions ; it may also be imperative to deal with the possible administrative difficulties in hearty sword-and-buckler style. The result will be great. The career of the Indian budget-maker, after all its storms in the last decade, will result in an atmosphere of peaceful and rosy sunset.

The calendar year is used as the financial year in certain parts of the British Empire (Jamaica, Trinidad, etc.), and in France, Belgium, Greece, Russia, Switzerland, and the Argentine. In addition to the United Kingdom, the other countries which have the year ending March 31 for financial purposes (but not necessarily for trade purposes) are Canada, the Union of South Africa, New Zealand, Egypt, Japan, and Germany. Certain countries, such as Australia, Newfoundland, Italy, China, and Austria, make their financial year end on June 30. The question of changing the United States financial year, ending June 30, to the calendar year is, it is believed, under consideration. The British trade returns do not, like those of India, follow the financial year but the calendar year.

IV

Loans

In 1888 the Bombay Chamber of Commerce raised the important question of loans from balances, and pointed out that the Treasury balances were highest at the time when the demand for funds for trade purposes was greatest. Government, however, did not recede from their views expressed in 1876, and held that trade should depend on its own resources, and that systematic advances by Government in the busy season would tend to reduce the working balances of Government to an unsafe minimum, with the consequent risk of panic. If any assistance from Treasury was to be given it should be through the Presidency banks at the published rate of interest, in order to assist a temporary stringency. In 1898 the Bengal Chamber of Commerce renewed the proposal and suggested loans at 1 per cent below bank rate during the months of January to May of each year from Treasury balances. The Secretary of State vetoed the proposal as regards the rate. He believed that the scheme would interfere with the remittance to England at a favourable rate of exchange of the amount required for the discharge of the sterling obligations of India. The grant of loans in India was made subject to the retention by Government of an amount sufficient to meet the probable amount of remittances to London, in addition to the amount required for payments in India. Loans were not to be below bank rate. In 1913 the proposal was, as we have seen, again raised, and it met with better success at the hands of the Secretary of State. The Chamberlain Commission also recommended that Government should make loans from their balances. Since 1876 the position of the Presidency banks had immeasurably strengthened with the expansion of business. Government deposits were proportionately less than private deposits in that year. The loans were not to be permanent but merely temporary loans during the busy season, and would be made on three conditions: (1) that the loans should remain within the absolute discretion of Government; (2) that the loans should be allowed on good security, such as on Government of India securities, Port Trust stocks, or similar securities; and (3) that the loans should be for short periods. In the first instance they should be confined to the Presidency banks, which in turn would be able to afford easier rates to the other users of money, and these loans would be granted at a prescribed level, one or two per cent below bank rate. It was clear that the loans were to be met from three sources: (1) the unemployed balance in India, *i.e.* the difference between the minimum working balance of November or December and the figure to which the balance is raised during the busy season by the additions made to it from that date; (2) unexpected revenue surpluses, such as those which occurred in 1911, 1912, and 1913; and (3) a portion of the funds which have ultimately to be remitted to London, if such funds might without loss or inconvenience be retained for a time in India before being remitted to meet liabilities in London.

It seemed that undue caution had been pursued in the floating of loans in India.

Those who are qualified to speak on behalf of the Indian banking community are all agreed in stating that larger loans could be issued each summer in India, if some means were available for counteracting the stringency that recurs annually in the winter and early spring. The practice of making loans from the Paper Currency Reserve and from balances will certainly assist the Government in increasing their annual rupee loans in the summer. The banks would probably be glad to keep larger holdings of Government stocks, if by so doing they did not run the risk of having insufficient liquid resources in the busy season. For the last two years the rupee loan issued in India has amounted to three crores or

£2,000,000. If the Government could count on raising larger sums each summer in permanent loans, it should be possible for them to reduce to an equivalent extent their estimate of £12,000,000 as the amount of the closing balance required on March 31 to tide over their summer and autumn requirements. As their capital outlay occurs mainly in the United Kingdom, they will thus be able to release, in payment for Council drafts, some part of the amounts now locked up in the Reserve treasuries during the busy season. . . . We recommend to the attention of the Government of India the questions of the desirability of some relaxation of the present regulations in regard to rupee paper and of creating new forms of securities, such as Treasury bills, short-term bonds, or stock redeemable within a moderate period, likely to be taken up by persons to whom rupee paper does not appeal.

Wise words these. We shall see below how during the war such methods were successfully tried. In regard to the India Office balance, which is mainly supplied from the sales of Council drafts in India and loans raised in London, the Commission were of opinion that there had been some excess of caution in the renewal of debt.

"We are inclined to think," wrote this body of experts, "that in their dealings with the temporary debt the India Office, like the Government of India, are open to the charge of being over-cautious. We would instance in particular the renewal of £1,500,000 of India bills in December 1910 and again in December 1911. The fact that the summer monsoon was over and the probability of some considerable surplus in the receipts from sales of Council drafts could be foreseen by that period of the year would have justified, we think, a less cautious procedure. Another particular instance of what appears to us to have been excessive caution is the flotation of a loan for £3,000,000 in London in April 1912, when the market conditions were very unfavourable, regard being had to the size of the closing balance on March 31, 1912, viz. £18,390,013; and in looking into this transaction we have found some reason to doubt whether there is sufficiently close consultation between London and India as to the time and amount of particular borrowing operations. It is probable that in 1912 a larger amount than three crores might advantageously have been raised by a rupee loan in July and a smaller amount than £3,000,000 by a sterling loan in London in April."

The system of placing part of the balance out on short loan with approved borrowers was on the whole well managed. It was mentioned in evidence that only in two cases in twenty years were borrowers unable or unwilling to repay their loans on the dates on which they were due, and in both these cases the Indian exchequer suffered no ultimate loss. The Commission, however, drew attention to (1) the terms for which the loans were made; (2) the desirability of greater publicity regarding admission to the list of approved borrowers; and (3) certain defects in the list of approved securities, and especially in regard to its narrow range.

In recent years one of the most striking changes that have come over Indian finance has been the change of policy in regard to loans, including loans from balances. It is one of the most successful parts, if not the most successful, of Indian financial policy during war time. We have already referred to the changes in the balances held in the Reserve treasuries. The figures above speak for themselves. With the fall in the amount held in the Reserve treasuries there has been a considerable increase in the balances at the head offices of the Presidency banks. There was an intimate connection between Government and the Presidency banks in regard to loans, and Government, instead of lending, found it on occasions to their advantage to borrow from the money market. The War Loan of 1917 amounted to R. 45 crores, and in October 1917 Indian Treasury bills were placed on the market for six, nine, and twelve months, and in January 1918 for three months' money. Including a loan of R. 4 crores from the Bank of Bombay, the borrowings of the Government of India in the year ending March 31, 1918, reached the large figure of R. 93 crores. The size of this figure will be realised when it is remembered that at the close of the pre-war year the entire rupee debt was only about R. 146 crores. The second Indian War Loan of 1918, which included, in addition to three- and five-year War Bonds, seven- and ten-year Bonds bearing 5½ per cent interest free of income-tax, and repayable at R. 103 and R. 105 respectively, reached a total of R. 57 crores. The ten-year Bonds proved a great attraction, as no less than 40 per cent of the Loan was taken in that form. In the Loan of 1917 the number of investors, excluding purchasers of cash certificates, was 155,103; in the 1918 Loan, 227,706. In 1917–18 cash certificates brought in a net receipt of about £6,000,000, and in 1918–19 there was a net payment of £500,000. Indian Treasury bills on April 1, 1918, still outstanding, amounted to R. 43½ crores, and on March 31, 1919, excluding Treasury bills issued to Paper Currency Reserve, the outstandings were R. 28½ crores. On June 16, 1919, Government announced the issue of a 5 per cent income-tax free Loan, issued at R. 95, repayable at R. 100 in 1945–1955. War Bonds were accepted at par as the equivalent of cash in subscription to the Loan, which opened on July 2. To form a depreciation fund in order to buy in the

Loan when it falls below the issue price, $1\frac{1}{2}$ per cei of the Loan was set aside annually. Facilities foı purchasing the script were given not only at the head offices and branches of the Presidency banks and the office of the Controller of Currency, any Accountant-General or Comptroller, but also at any Government Treasury or sub-Treasury, or at any Post Office conducting Savings Bank business. The amount subscribable was unlimited. These are illustrations of the great advance in loan policy brought about by the war, and are in sharp contrast with the old rupee loans of three or four crores when the system of tender by banks and by financial houses was the order of the day. Cash certificates, one of the many signs of what may be termed the democratisation of Indian finance, are now to continue as a permanent feature of loans.

To sum up, Government have, it has been seen, kept much smaller amounts in their Reserve treasuries than was customary some years ago, and have left greater balances with the Presidency banks. They have also in turn been drawn into closer relations with the money market, which has been for Indian finance all to the good. We have now dug through the heavy ground that had to be broken in the opening paragraphs of this chapter on balances. There has been a certain fascination in attempting to reach the root of the matter.

CHAPTER XIII

THE INDIAN BANKING SYSTEM

I

The Business of Banking

Next to more and better education, banking is India's greatest need as a cure for her currency maladies. Nothing but these necessaries of efficiency in a country's production will stop the dissipation of the precious metals and increase her capacity to produce wealth. A network of branch banks up and down the countryside, if linked to the pick of Indian banks on a definite and well-thought-out system, will mean a great increase to material well-being. As an Eastern proverb truly says: "A man without credit is like a bird without wings; if he soars he falls to the ground and dies." In this and the following chapters we shall take stock of our position. We shall parade in as unostentatious a way as possible a few of the most telling statistics. We shall then describe the main features of the Indian banking system; and after examining the balance sheets of the main banks to elucidate the effect of the war, we shall turn to some of the problems of banking legislation.

By "banking" we mean the business of dealing in credits, and by "a bank" we include "every person, firm, or company having a place of business where credits are opened by the deposit or collection of money or currency, subject to be paid or remitted upon draft, cheque, or order, or where money is advanced or loaned on stocks, bonds, bullion, bills of exchange, or promissory notes, or where stocks, bonds, bullion, bills of exchange, or promissory notes are received for discount or sale." This is a definition used in an Act of Congress,[1] and it shows the truth of Bagehot's remark that the Rothschilds are great capitalists, but not bankers. It also precludes in certain instances the use of the term "bank" which was not altogether uncommon before the Punjab failures some years ago, when ekka or coach repairing, the manufacture of soap and oil and "certain things," medical attendance, and "the leasing or hiring or purchasing of all commodities and substances which can form the subject of purchase or sale," were combined with what is ordinarily and correctly understood as "banking." Our main banking system, as we shall see, includes the Presidency banks, the Exchange banks, the Indian Joint-Stock banks, Savings banks, and Co-operative banks. Industrial banks and Mortgage banks are included under Indian Joint-Stock banks. We might also classify banks in a somewhat different way. "Banking," said Sir James Meston, the Financial Member of Council, "for all practical purposes in India, may be divided into four heads. There is, first, general banking, the ordinary bank with which we are familiar, with which we keep our accounts or our overdrafts; there is, secondly, the Land Mortgage bank; thirdly, the Co-operative bank; and

[1] 14, Statutes at Large, p. 115.

fourthly, the Industrial bank." The last class of bank has not yet been introduced to any extent, save in the case of the brilliant exception—the Tata Industrial Bank, which for the present also does exchange business. The banking map which is appended is intended to show the general banking system of the country, the Presidency banks and their branches, the Exchange banks with their inland agencies, and the Indian Joint-Stock banks. The summary tables of the number of head offices, branches and agencies, deposits, etc., which are to be found on the map, are intended for him who runs and reads and, reading, wishes to understand. The red dots are Government treasuries. They unfortunately do not refer to branch banks, but if it be assumed for the moment that these are banks, we can imagine what the map of India would be, were there at least one bank in each of the 271 districts into which British India is for administrative purposes divided. The following table is also interesting as showing the present development of banking in this country :

[TABLE

INDIAN BANKS

	1913.*	1914.	1915.	1916.	1917.	1918.
Number of banks	56	56	59	61	55	†
Number of branches	†	†	†	†	304	†
Capital and Reserves (crores of rupees)—						
(a) Presidency banks . . .	7	8	7	7	7	7
(b) Exchange banks ‡ (branches)	57	55	55	57	49	54
(c) Indian Joint-Stock banks .	4	4	5	5	5	†
Deposits (crores of rupees)—						
(a) Presidency banks . . .	42	46	43	50	76	60
(b) Exchange banks (Deposits in India) ‡	31	30	34	38	53	62
(c) Indian Joint-Stock banks .	24	18	19	26	32	†
Cash to liabilities on deposits (percentage)—						
(a) Presidency banks . . .	36	46	34	35	45	28
(b) Exchange banks § . . .	19	28	23	27	63	28
(c) Joint-Stock banks . . .	18	21	22	24	24	†

* Pre-war year. † Not available.
‡ Total capital and reserves of these banks have been taken, as their Indian portion cannot be estimated. The number of Exchange banks was 12 in 1913, 11 in 1914 and 1915 (the Deutsche Asiatic Bank having gone into liquidation), 10 in 1916 (the Delhi and London Bank having been amalgamated with the Alliance Bank of Simla, Ltd.), and 9 in 1917 (information of Russo-Asiatic Bank not being available). The conversion of the banks' sterling capital into rupees has been made at the rate of R. 15 to the £.
§ The percentages of these banks have been calculated on their deposits and cash balances in India only.

Although India is fifteen times the size of the United Kingdom in point of area and seven times in point of population, she has no bank with large deposits such as the London City and Midland Bank. The deposits and current accounts of the Bank of Bengal are only about one-tenth of those of the former bank. The deposits in India of the National Bank are about half of those of Glyn, Mills, Currie & Co., although, of course, its total deposits are somewhat greater. The Bank of Bengal and the Bank of Bombay would rank somewhere in the 'seventies if we were to select the deposits of the eighty largest banks of the world. The position of India in the banking world may to some extent be gauged from the following table, which illustrates how trade follows the bank as much as the flag. The coloured diagrams inserted as a frontispiece are also of interest in this connection.

THE NUMBER OF BANKS IN CERTAIN COUNTRIES, CAPITAL, DEPOSITS, AND FOREIGN TRADE

	India (1917).	United Kingdom (1918).	United States (1917).	Canada (1917).	Australia (1917).	Japan (1916).
Number of banks—						
Banks . . .	55	54	28,913	21	24	2143 *
Branches . . .	304	9303	..	3306	2332	3731
Capital, £ (millions) .	23 †	88	482	23	35	67
Deposits, ‡ £ (millions) .	118	2355	5767	324	316	494
Deposits per head . .	£0–7	£52	£55	£46	£63	£8
Foreign trade, £ (millions)	253	1849	1886	416	174	188
Deposits per £100 of foreign trade . .	£46	£126	£306	£78	£182	£215

* According to the Official Gazette of the Government of Japan there were in December 1918, 715 Government and semi-Government banks, 1378 ordinary banks, of which 1198 were Joint-Stock banks. In addition to this there were 10 foreign banks. Japan is one-seventh the size of India and has one-sixth of its population.

† Includes the total capital (viz. £18,000,000) of the Exchange banks, as their Indian portion cannot be estimated.

‡ Includes Savings bank deposits.

The comparatively few branch banks and small deposits are striking in the case of India.

II

INDIGENOUS BANKING

The number of bankers in India at the last census was under half a million. This represented one-eighth of 1 per cent of the population. The term "bankers" in the census includes bank managers, money-lenders, exchange and insurance agents, money-changers and money-brokers, and their employees. In some centres, notably the ports, banks are numerous, and especially in the case of the Presidency and Exchange banks, efficiently managed. Elsewhere they are conspicuous by their absence. Large areas and sometimes stations of considerable size are without a bank, and to cash a cheque is a matter of inconvenience and even of difficulty. In most districts there is the saucar, bania, mahajan, or, as he is generally known in the Presidency and large towns, the shroff. He is often a trader as well as a banker. He draws hundis or bills, usually written in that uninviting script "mahajani" peculiar to this class, on his *confrères*, and to dishonour a hundi is an event of rare occurrence. His function in the internal economy of the country is a useful one. He finances the agriculturist, he assists in the movement of the crops to consuming areas or to the ports, and he distributes all kinds of goods, including piece-goods, throughout the district or province in which he resides. When necessary, he sends his own agents with specie by rail during the harvest season, or he will buy bills on surplus treasuries, *i.e.* on those treasuries in which the revenue exceeds the expenditure. He also discounts these hundis with the Presidency banks and certain other banks. The Exchange banks seldom, if ever, touch this class of business.

In times of stringency the bazaar rate for first-class hundis follows the Presidency bank rate, but first-class shroffs stop borrowing when rates rise much above 8 per cent. During the height of the busy season for jute (August to September), and also during January to March, when oil-seeds and other winter crops are exported, money is usually stringent in the bazaar. The shroffs who do this hundi-discounting business charge rates from 2 to 3 per cent in

Calcutta (and from even 1½ per cent in Bombay where the competition is keener) above the bank rate, and themselves rediscount with the Presidency banks[1] at the latter's official rate, and thereby make a profit. This is what ordinarily happens during the busy season. In the off season those shroffs do not require to go to the Presidency banks, and in fact underquote the bank to the extent of, say, 2 per cent, not in a fixed ratio of so much per cent under bank rate, but according to the number of hundis offering for discount and the amount of ready money in the bazaar available for that purpose. In short, during times of seasonal stringency the shroffs base their rates of discount on the Presidency banks, but they do not do so to anything like the same extent when money is easy. The shroffs may entirely disregard the bank rate, for instance, when the bank rate is not a true indicator of the local value of money. It is not only in western countries that the theory of discount is full of paradoxes. The main movements are in the long run the same, since the marwari or shroff must depend on the banks at the ports for additional supplies of rupees. The reason for the lack of complete harmony between the movement of the Presidency bank rate and the hundi rate is that the shroffs have in the aggregate considerable financial resources which are used in the internal and not in the export trade. They rarely discount European paper, and never purchase foreign or sterling bills. They do not as a rule lend on Government paper or similar securities, but grant advances by discounting hundis, by making loans to cultivators, and against gold or silver bullion. In times of exceptional stringency they are able to

[1] See Addenda and Corrigenda, p. 484.

give considerable assistance to the internal trade without the assistance of banks, and sometimes without raising their rates to any great extent.

The relation between the indigenous system and the Joint-Stock banking system is not so close as one would *a priori* have expected, especially in times of stringency. The Indian banker, however, of this class is slowly coming into closer touch with Joint-Stock banking on modern lines. He is beginning to see that as banks develop, such institutions will prove not a hindrance to him but the contrary. They will relieve him of the trouble and risk involved in carrying about and secreting bags of rupees. When banks are generally established in agricultural districts (as these are not at present), it will be to his advantage to use the banks for remittance, deposit, and discounting purposes.

III

The Presidency, Exchange, and Indian Joint-Stock Banks

The Presidency banks enjoy the prestige of antiquity, and one might say, of official dignity, derived from acting as bankers to Government. These banks owe their long life largely to the restrictions under which they have always worked. They absorb considerably more of the banking business than do the Indian Joint-Stock banks. They are confined to a fixed territory in accordance with the Presidency Banks Act XI. of 1876 (chapter i. section 3). The Bank of Madras is limited to the Presidency of Fort St. George (Madras), the Bank of Bombay to the Presidency of Bombay, and the Bank of Bengal to the Presidency of Fort William, which means all the territories in British India other than the Presidencies of Fort St. George and Bombay (*i.e.* Bengal, Bihar, and Orissa, the United Provinces, the Punjab, Delhi, the Central Provinces, Burma, Assam, and the North-Western Frontier Province). The banks can, however, establish, with the previous consent of the Governor-General in Council, branches or agencies at places outside the Presidency in which the bank is situate (section 42), *e.g.* the Bank of Bombay has branches in Berar, the Indore State, and at Quetta, the Bank of Bengal in the Hyderabad State, and the Bank of Madras at Bangalore. Next after the Presidency banks, the Exchange banks are of most importance. These are all banks with their head offices out of India, and several of these banks were founded sixty years ago. Of the ten banks five do a considerable portion of their total business in India, *e.g.* the Chartered Bank of India, Australia, and China, the National Bank of India, the Mercantile Bank of India, the Eastern Bank, and Messrs. Cox & Company's Bank, while the remainder are merely agencies of large banking concerns doing business all over Asia, *e.g.* the Hong-Kong and Shanghai Banking Corporation, the International Banking Corporation, the Yokohama Specie Bank, the Comptoir National d'Escompte de Paris, and the Russo-Asiatic Bank. The Indian Joint-Stock banks are registered under the Indian Companies Act and have their head offices in India. These are, as will be seen from the banking map, chiefly scattered throughout the north-west of India, especially in the Punjab and the United Provinces. With the exception of the Allahabad Bank (established in 1865) and the Alliance Bank of Simla (established in 1874), most of these banks are of comparatively recent date or have been recently reconstructed. For purposes of convenience we have divided these into two classes, namely (*a*) those with a paid-up capital and reserve of R. 5 lakhs and over, and (*b*) the more or less pigmy banks with a capital between one lakh and R. 5 lakhs. The bank failures of 1913 and subsequent years were confined to Indian Joint-Stock banks, and the total paid-up capital of the banks that failed was the equivalent of 51 per cent of the total paid-up capital of Indian Stock banks, in actual operation in 1917.[1] With Co-operative banks, Industrial banks, Savings banks, etc., we shall deal below after describing as briefly as possible some of the outstanding features of the early banking system of last century.

IV

THE EARLY HISTORY OF JOINT-STOCK BANKING

There was a considerable extension of banking, especially in Calcutta, during the first quarter of last century. Before that period banks had been founded by the Calcutta Agency houses, whose business was not merely that of merchants and agents, but also that of bankers for the mercantile community, planters, and the Civil and Military Services. The Bank of Hindustan, for example, was founded in Calcutta by Messrs. Alexander & Co., about 1770. In some cases the trading part of the business was entirely separate

[1] If the total paid-up capital of the banks that failed between 1913 and 1917 is added to the total paid-up capital of Indian Joint-Stock banks in 1917, 34 per cent of this total paid-up capital was lost in the period (1913–1917).

from the banking part. We have referred in a previous chapter to the run on this bank in 1819, 1829, and 1832. In the serious crisis of 1832 [1] the bank closed its doors when the firm of Messrs. Alexander & Co. failed. The Bengal Bank (quite unconnected with the Bank of Bengal) was in existence between 1790 and 1800. The General Bank of India was in existence in Calcutta in 1790. On May 1, 1806, the Bank of Bengal opened its doors under the name of the "Bank of Calcutta." Its capital was R. 50 lakhs in sicca rupees (in 500 shares of R. 10,000 each). On January 2, 1809, the first Charter was granted and the name was changed to the Bank of Bengal. The first secretary was a member of the Bengal Civil Service, and until 1854 a member of the Civil Service was, with one exception, always appointed to this post. The first Charter provided

> that the affairs of the bank shall be managed by nine Directors, three of whom shall be nominated by Government to represent their interest (100 shares), and six by the proprietors; that no person shall be entitled to vote who shall not be possessed of one share of the capital, registered as such in the bank-books; that the presence of three Directors, at least, shall be necessary to constitute a Board to transact business; that dividends shall be determined by the Directors upon the grounds of the actual profits of the bank, during the period for which such dividends shall be made; that upon giving only one year's notice, Government may put an end to the Corporation.

The immediate cause of the founding of the bank was a letter which a Mr. Henry St. G. Tucker, Accountant-General, addressed to the Government

[1] An interesting account of the failures will be found in the evidence of Mr. G. G. de H. Larpent before the House of Commons Committee on the state of Manufactures, Commerce, and Shipping, 1833.

of India. He pointed out that a bank was essential in the interests of Government and of the mercantile community. In those days money was raised by Treasury bills which were often liable to fall to a heavy discount. To remove the inconveniences of this, and at the same time to maintain the credit of Government a bank was considered indispensable. To make this bank secure Government was to aid it by contributing as a shareholder to the extent of one-fifth, by sharing in its direction, and in the privilege of voting. From 1809, when the capital was £500,000, it increased until at the time of the passing of the Presidency Banks Act in 1876 it stood at £2,200,000, of which £220,000 belonged to Government. It was also laid down in the earliest charter that 1 lakh was to be the maximum amount of stock which any one proprietor could hold, and 1 lakh was to be the maximum amount to be advanced to any individual and 5 lakhs to Government. This restriction on advances to Government was, some have thought, taken from the Bank of England Charter of 1695, which prohibited the bank from making advances to Government without the permission of Parliament. The bank's rate of interest was limited to a maximum of 12 per cent, just as the Bank of England's rate until 1839 was limited to 5 per cent. The Charter also provided that (1) a cash reserve of at least one-third of the outstanding liabilities payable on demand should be kept, and (2) the total liabilities of the bank including deposits, note issues, etc., were not to exceed the bank's capital of 50 lakhs. In 1823 the Charter was renewed, and it permitted a note issue up to R. 2 crores or four times the bank's capital. The limit of the cash reserve to outstanding liabilities was reduced to one-fourth. In 1829 the Court of Directors confirmed the Charter of 1823, but insisted that the capital should be increased to R. 70 lakhs. This, however, was the year of the Rajkissen Dutt forgeries. It was, too, the beginning of the period of stringency and bankruptcies. Rajkissen Dutt in 1828 projected a Bank of India, the notes of which circulated to some extent among the Indian community. In 1829 he borrowed money from the Bank of Bengal and tendered as security forged Company's paper. The Bank of Bengal lost R. 3½ lakhs. The Secretary, Mr. J. A. Dorin, C.S., suspected the genuineness of the paper and sent it to the Accountant-General for verification. The paper was reported to be duly in order, and Mr. Dorin then passed it. Mr. Prinsep, afterwards Sir H. Thoby Prinsep,[1] Financial Secretary to Government, who signed the notes, declared that he could not swear that the signatures were not his own. Government declined to make good to the bank the amount advanced upon the forged Company's paper, a loss of 3½ lakhs, and the case was carried by the bank to the Court of Directors, the Supreme Court in Calcutta, and finally, but unsuccessfully, to the Privy Council. In 1834 the whole of the profits of the first half of the year were written off to profit and loss. "On its being known," says Cooke, "that no dividend would be made, bank stock fell from 6000 rupees to 500 rupees premium, and even to par, so great was the consternation in the bazaar. The excitement,

[1] This is the same Prinsep (1792–1878) who before he had been twelve years in India was appointed Persian Secretary to Government at Rs. 3000 a month. Except on two occasions when he was compelled to leave India for a long time he never left the Secretariat until he was appointed member of the Governor-General's Council, first during a temporary vacancy in 1835, and five years later when he was permanently appointed to the office. He retired from India in 1843.

vever, was merely temporary, and tended only to lefit those who seized the opportunity to purchase the bank shares they could meet with; for, the owing year, the premium rose to its former ndard."[1] In the failure of several agency houses Calcutta between 1829 and 1832 several of the so-ed banks disappeared and the Bank of Bengal lf felt the strain. The amount written off as bad ts, for example, from 1829 to 1835 was R. $4\frac{1}{2}$ lakhs, lusive of that involved in connection with the jkissen Dutt forgeries. The bank assisted Messrs. xander & Co. to the extent of 23 lakhs, the limit oosed by the Charter being, as we have seen, 1 lakh. hough the Charter prohibited security in the form immovable property, the Directors took security this form, and on the failure of that firm, actually rked the indigo factories notwithstanding the pro-ions on the Charter that the bank was not to engage trade. The Government Directors had concurred this without mentioning the fact to Government. e Governor-General took, what Sir James Brunyate rightly called, "an amazingly lenient view of the raordinary failure of the Government Directors to form their obvious duty." The Governor-General ered that a new Charter adapted to the circum-nces of the country should be drawn up, and it uld be the particular duty of the official directors see that its rules were never violated. In 1839, er prolonged negotiations, a new Charter was given the bank. The proprietors were not in favour of ending the business of the bank by means of nches, but had no objection to permissive clauses

[1] *Banking in India*, by C. N. Cooke, Deputy Secretary and Treasurer, k of Bengal, Calcutta, 1863. The volume is scarce.

to this effect being inserted in the Charter. They voluntarily added after the words "buying and selling bills of exchange," what has since been a permanent restriction—"payable in India." The limit of cash advances was raised to 3 lakhs, and the cash reserve of one-fourth was maintained. A loan was not to be current for a longer period than three months, and the security was to be that of at least two persons unconnected with each other. The influence of Scotch banking methods is evident. The Charter had a very close resemblance to its predecessors, and it remained in force until 1862, being only slightly modified in 1854 when advances on the shares of guaranteed railways were allowed, and in 1855 when the Presidency banks were permitted to purchase and sell Government securities or the shares of the Presidency banks and receive the interest or dividends on behalf of their constituents. The Bank of Bombay was constituted by Act III. of 1840. The Bank of Madras was incorporated by Act IX. of 1843, superseding an existing State bank, known as the Government bank, which had a small business and a note issue of its own. It was managed by the three *ex-officio* financial officers of Government.

In 1836 we have the first proposal for a "great banking establishment for British India." It will of course be remembered that at this time the Bank of Bengal's activities were confined largely to Calcutta, and the Banks of Bombay and Madras had not been founded. "At present," as the Prospectus has it, "the basis of the Bank of Bengal is too narrow for such a customer as the Government, and the bank and the Government being one, the period of the emergency of the Government is the time of the distress of the bank also: but establish a bank of adequate dimensions, and its solid capital and extensive credit would enable it to render important pecuniary assistance to the Government." The promoters of the scheme were "a large body of merchants interested in the East Indies" who approached the Court of Directors of the East India Company. Although the Prospectus does not go into practical details of the construction of such a bank, it states the aim clearly to be to "facilitate the receipt of the revenue and its subsequent diffusion through the various channels of the public expenditure, furnish the remittance to Great Britain of the sums required there for the home charges, and enable the East India Company to act up to the intention of the Legislature by keeping their Government entirely aloof from that interference with the commerce of India which the present system of remittance involves." The Directors of the Bank of Bengal were asked for their opinion, and after referring to the absence of detail on "the abstract proposition that concentration of management might be advantageous," they considered that the Bank of Bengal could itself take over the management of Government business, and it was quite willing to extend banking facilities in India without the assistance of London. This reply, after being approved by the shareholders of the Bank of Bengal at a general meeting, seems to have been the end of this interesting proposal.

V

The Development of Joint-Stock Banking

Between 1840 and 1850 Joint-Stock banking developed, but as there was, unfortunately, no control over such concerns except as regards the three Presidency banks, orthodox principles of banking administration were not always followed. The *laisser faire* policy, a particularly British characteristic in regard to banking save for the legislation of 1844 and 1845, was followed in India. The policy was somewhat similar to that described by the Hon. Finance Member of Council, when he said on March 10, 1919, in the Legislative Council, "I have no objection to see strong banking laws, strong regulations for preventing dishonesty and fraud. But apart from that, it does seem to me that the best way in which a nation can work out its own banking salvation is by its own experiments and its own experiences." This admirably sums up in some ways, not merely the position in 1919, but in the period 1840 to 1876, especially between 1840 and 1850 when complete *laisser faire* led to trouble and to the hatching of wild-cat schemes. There was a vicious system of advances upon indigo factories in vogue at this time, and also advances on the personal security of the borrower. In 1842, for example, there occurred the failure of such indigo houses as Messrs. Fergusson Brothers, Gilmore & Co., etc. The Union Bank had in 1839 adopted the system of making advances to the Calcutta indigo houses on the deposit of title-deeds of their factories and assignment of the annual produce. The same bank also introduced the Scotch Cash Credit system of lending money on the personal security of the borrower. The Union Bank granted excessive credits to a few particular houses. Colville Gilmore & Co., who were represented on the directorate of the bank, were debtors to the Bank at one time to the extent of R. 24 lakhs or 25 per cent of the entire capital of the bank. Cockerell & Co. were also represented on the directorate and were liable to the extent of R. 16 lakhs. In 1848 the bank stopped payment, and in England as well as in India its failure gave rise to considerable criticism on account of the flagrant breaches of all sound banking principles. The history of the Benares Bank[1] (1845–49) is another striking example of unsound banking. It was established with a capital of R. 5 lakhs raised by the sale of 1000 shares of R. 500 each. R. 250 was paid up by instalments, and by borrowing the amount from the bank on the security of its own scrip. When unable to call up the full price of the shares, the bank determined to issue new shares. By 1848 the total number of shares was 6000, which gave the nominal capital of R. 15 lakhs, of which no more than R. 9 lakhs were ever paid up. A considerable amount of this sum consisted in loans from the bank. The Directors purchased their stock with money from the bank. When the stock was selling in the market at from 30 to 50 per cent discount, the Directors purchased in the stock of their friends at par, and cancelled the shares. Nearly the whole capital was invested in the Ganges Steam Navigation Company, from which it could never have been withdrawn. As the *Bombay Times* said, when commenting on the examination of the Chief Director in the Insolvency Court: "The only reason that can be assigned for advancing money to intending shareholders to pay their stock is that it enabled previous holders to dispose of theirs to advantage; the only explanation that can be given of the creation of new stock when that originally sub-

[1] This has, of course, nothing to do with the present Benares Bank, which was founded in 1904.

scribed for was only half paid up—much of even this half payment being from the coffers of the bank—is, that it induced dupes to come in and bring occasionally something in the shape of hard cash along with them. By this device the Reverend Mr. Shurman, Major Stewart and his son seem to have been ruined." The letters of the Chief Director, Colonel Pew, read as if they had been written in the years preceding the Punjab and Bombay bank failures in 1913 to 1917, and not in 1847. He writes to one friend: "I advise you to buy as many more shares as you possibly can, for this will be a glorious bank." "I have got you 12 old shares at twenty-five per cent premium, and 4 new shares at par—a deuced good bargain for you, as you escape the two per cent premium on those new shares. However, I'd always do a deal to get steady men like yourself into the bank. It is a grand point—we are doing the most splendid business—and our onset dividend may be a whacker, if we like to divide all or nearly all the profits." The whole history of the bank reads like a bucket-shop circular. The Directors held out promises that could not be realised, and the delusion was maintained only by prevarication. No small wonder that the episode finished with the Chief Director's bankruptcy and the cashiering after a court martial in Simla of two officers from the army.

But these banks were in the main exceptions. There were other banks, such as the Agra Bank (1833–1900), the Simla Bank (1844), and the Dacca Bank (1846), which did useful work. The Dacca Bank was founded in 1846 with a capital of R. 5 lakhs in shares of R. 1000 and R. 500 each. R. 400 per share were fully paid up, and in 1862 the Bank of Bengal, in accordance with its Charter, took over the Dacca Bank, the shareholders receiving an equivalent for their shares in the Bank of Bengal stock.

Of the Chartered Banks founded by Royal Charter in the 'fifties of last century the Chartered Bank of India, Australia, and China is the only one that is now doing business in India. The bank began its operations in 1857, when offices were opened in Bombay and Calcutta. A branch was opened in Rangoon in 1862, and at the present time there are Indian branches also at Madras, Karachi, Amritsar, Delhi, and Tavoy. It is in reality one of the five Chartered banks doing business in the 'fifties that still remain, the other four being the Bank of Australasia, the Bank of British North America, the Colonial Bank, and the British Linen Bank. No office has been opened in Australia. In Sydney, when in 1853 it was known that the bank might have branches in Australia, the proposal was not favourably received in the Press, which was antagonistic to the introduction of new Anglo-Australian banks. The question of opening an office in Australia has since been mooted on more than one occasion. The bank's branches up-country at Delhi and Amritsar are chiefly for the Manchester part of the business and for the sale of gold bullion. During the 'sixties the bank, like other exchange banks in India, experienced a severe depression and had to suspend for a brief period the payment of dividends. In 1857 the paid-up capital was £145,820; in 1919 this had grown to £1,200,000, and of the Exchange banks in India the bank has now, with one exception, the largest deposits. The National Bank of India was established in 1863 as the Calcutta Banking Corporation, a name that was changed in 1864 to its present name. The head office was transferred from Calcutta to London in 1866. In 1866 the paid-up capital was £466,500, and in 1919 £1,000,000. The branches in India are at Calcutta, Bombay, Madras, Karachi, Chittagong, Amritsar, Cawnpore, Delhi, Lahore, Tuticorin, Cochin, Rangoon, and Mandalay. The Mercantile Bank was established in 1853 and called the Mercantile Bank of India, London, and China. It subsequently went into liquidation. The present Mercantile Bank of India was formed in 1892. Its paid-up capital in 1919 is £562,500, the same as in 1892. The bank has branches in India at Calcutta, Bombay, Delhi, Madras, Karachi, and Rangoon. The Delhi and London Bank was absorbed by the Alliance Bank of Simla in 1916. The Eastern Bank was founded in 1909, and the called-up capital has been increased from £400,000 to £600,000. The Indian branches are at Bombay and Calcutta. The Hong-Kong and Shanghai Banking Corporation (1865), the International Banking Corporation (1901), the Yokohama Specie Bank (1880), Messrs. Cox & Company's Bank (1909), the Comptoir National d'Escompte de Paris (1889), and the Russo-Asiatic Bank (1910) are the other Exchange banks in India. The Tata Industrial Bank (1917) also does, as we have seen, exchange business. This completes the list of banks doing exchange business, which we have described from the point of view of convenience together in this paragraph. An account of their business will be deferred to a later chapter. We must now retrace our steps and renew the historical narrative.

VI

The Presidency Banks from 1857

During the Mutiny the official Directors of the Bank of Bengal proved their mettle. The Government Directors were in a minority and the elective Directors (who were in a majority of two to one) insisted on the retention of the former discount rate, the granting of accommodation to selected individuals only, and the refusal to grant advances even on Government paper to those willing to pay a higher rate. The cash balance fell from R. 127 lakhs in July to R. 56 lakhs in October, or a fall from one-half to one-fourth. Then it fell still further to an amount which was R. 5 lakhs, less than one-fourth of the liabilities. The Government Directors suggested the raising of the rate on outstanding loans and also the refusal to grant any further accommodation. It was only the threat of Government seeking an injunction that prevented further accommodation, and the carrying out of this threat would have spelt ruin to the bank. The Government Directors, therefore, in 1857, unlike their predecessors of 1832, were able to give Government notice at a critical time.

In 1859, as we have noticed elsewhere, the great Wilson in his speech in the Legislative Council on the Paper Currency referred to "the proposals which have been made for the purpose of establishing, upon a large scale, and with an adequate capital, a national banking establishment, capable of gradually embracing the great banking operations in India, and of extending its branches to the interior trading cities as opportunity might offer. That there is a growing want for such an institution and a rapidly increasing field for its operations no one can doubt." His successor, Mr. Laing, was convinced that a connection with a State bank, like that which exists between the Government and the Bank of England, is a great mutual advantage. "The convenience," he said, "to the State in ordinary times is obvious, and history shows what an important resource a bank may be to the Government in times of difficulty. The advantages to commerce, though less obvious, are not less real."

In 1862 the banks lost the right of issuing notes on the introduction of a Government Paper Currency on March 1 of that year, but in the legislation of 1862–63 the majority of the restrictions which had prevented difficulties in the critical times were withdrawn, but fortunately only temporarily. The Presidency banks were permitted for the first time to use the whole of the Government balances at the Presidency towns and at their branches free of interest until, after the experience of the Bank of Bombay's failure and the inability of Government to obtain in 1874 part of their own balances, a stricter Charter was prescribed.

Before this time (in March 1867), when the failure of the Bank of Bombay was imminent, constructive proposals for the improvement of Indian banking were put forward by the Bank of Bengal's able Secretary, Mr. Dickson. The Directors considered the question from a broad point of view—the formation of a great Central Bank under one Charter and a new name by the fusion of the three banks—while at the same time conserving existing interests. The paid-up capital was to be R. 5 crores with an unpaid capital of the same amount. Mr. Dickson proposed that the bank should do the same business as hitherto done by the Presidency banks, and at the same time hoped that the Government of India would return to "sounder views" on the question of the paper currency.

With such a large capital actually provided and liable to further calls in case of need, with an adequate reserve fund in the event of unforeseen losses arising either from the ordinary business or from political disturbances, I submit that the proposed United Bank would be equal, at all times and under all circumstances, not only to meet the legitimate requirements of commerce, but by unity of action and under the eye of the Supreme Government (*i.e.* the Government of India), to control those recurring monetary crises, which, although hitherto more felt in the Bombay Presidency, yet very closely and intimately affect the interests and position of all. Government would have an absolute guarantee for the unvarying management of their Treasuries under one controlling power; a certainty of greater economy in the use and distribution of their balances throughout India; uniform management of the Public Debt under the same safeguards but with enlarged security, and a powerful agent in aiding them in all their financial measures, not only at the seat of Government but by combined action throughout the whole country.

Mr. Dickson proposed local boards of directors at Bombay and Madras, but the central control would be the board in Calcutta. The rules of doing business in Calcutta would be followed by the Bombay and Madras boards. The Bank of Bombay did not agree to the scheme, and the Bank of Bengal thereupon withdrew in August 1867 from the negotiations.

In January 1868 the Bank of Bombay went into liquidation. The liabilities were subsequently paid up in full, but R. 189 lakhs of capital were lost. A new Bank of Bombay was formed in the same year with a capital of R. 100 lakhs, R. 50 lakhs being paid up in 1868 and the remainder in 1874. The history of the speculative mania leading to the liquidation of the bank and of that remarkable personage Mr. Premchund Roychund, whose position was not that of an ordinary speculator, is well described in *A Financial Chapter in the History of Bombay City*,[1] by Sir D. E. Wacha. A Commission was appointed by the Government of India to inquire into the causes of failure of the Bank of Bombay, and in 1869 this Commission submitted its report. The causes were ascribed to (1) the last Charter Act, which was much too lax as compared with its predecessor; (2) weak administration by the Secretaries and Directors; and (3) the abnormal rise in the price of cotton and "the very exceptional nature of the times." The majority of the Committee, consisting of Sir Charles Jackson, the President, and Mr. Maxwell Melville, were of opinion that Government should retire from their position as a shareholder. Major Innes, on the contrary, considered the position expedient. Sir Charles Jackson held the view that Government's participation was no real security against disaster. The Government Directors had other duties to perform and had neither the leisure nor sometimes the special qualifications to enforce an effective and vigilant control. The responsibility, in short, was apparent, not real. Moreover, with the great development of mercantile resources, Government aid, it was believed, was unnecessary, and the safety of Government's balances could be secured by restrictions in the form of an Act. By Act XI. of 1876—an Act for consti-

[1] Bombay, A. J. Combridge & Company.

tuting and regulating the banks of Bengal, Madras, and Bombay—Government retired from their position as a shareholder. This Act was based on a draft drawn up by the new Bank of Bombay in 1872 and was subjected to very careful revision in the Financial and Legislative Departments of the Government of India. The Act was more elaborate and systematic than previous Acts. The main characteristics of the Act are the restrictions on the kind of business to be transacted and the mode of its transaction, the power of inspection on the part of Government, and the periodical publication of the bank's balance-sheets. The chief relaxations included permission to invest in (1) railway stock, debentures or shares of railway or other companies the interest of which is guaranteed by Government, and (2) the debentures of legally constituted municipalities. The advance of money was no longer restricted to goods "not of a perishable nature." It was left to the banks to decide whether the goods were of a nature to warrant advances or not without any risk of a breach of the law. Branches could be opened at the discretion of the banks themselves within the respective Presidencies, and without the previous sanction of Government. The agency of the Bank of Bengal in Bombay was not to be disturbed, but it was limited to what was hitherto its object, the transaction of the business proper of the Bank of Bengal, and it was not, therefore, to encroach on the preserves of the Bank of Bombay. As the Financial Member of Council added at the time the Bill was introduced, "should permission be at any future time given to the Bank of Bombay to establish a corresponding agency in Calcutta, it will be under precisely the same restrictions, for the imposition of which due power has been reserved." Two restrictions suggested by the Jackson Commission were incorporated in the Act: (1) the prohibition of discounting securities supported by one name only; and (2) the limitation of advances (other than those upon security authorised by the Act) in respect of any single person or firm at any one time to R. 6 lakhs. The number of Directors on each board was limited under the Act to not more than nine and not less than six. Three of the Directors form a quorum for the transaction of business. The Bank of Bengal has in 1919 twenty-six branches—Calcutta (3), Agra, Akyab, Allahabad, Benares, Bombay (agency), Cawnpore, Chittagong, Dacca, Delhi, Hyderabad (Deccan), Jalpaiguri, Lahore, Lucknow, Moulmein, Nagpore, Patna, Rangoon, Simla, Naraingunge, Secunderabad (sub-agencies), Chandpur, Parbhani, and Serajgunge; the Bank of Bombay eighteen branches—at Bombay (2), Ahmedabad, Ahmedabad City (sub-branch), Akola, Amroati, Broach, Byculla (Bombay), Hyderabad (Sind), Indore, Jalgaon, Karachi, Poona, Rajkot, Sholapur, Sukkur, Surat, and Quetta; and the Bank of Madras twenty-six branches—at Alleppey, Bangalore, Bellary, Bimlipatam, Vizianagram (outstation), Calicut, Cocoanada, Narasapur and Rajahmundry (outstation), Cochin, Coimbatore, Erode (outstation), Colombo, Guntur, Bezwada (outstation), Kodaikanal, Madura, Mungalore, Masulipatam, Negapatam, Ootacamund, Salem, Tellicherry, Trichinopoly, Trivandrum, and Tuticorin. Statistics relating to the three Presidency banks will be found in the Appendix. The Act of 1876 is still in force, and has been amended only slightly by Act V. of 1879, Act XX. of 1899, and Act I. of 1907.

VII

THE INDIAN JOINT-STOCK BANKS

The Indian Joint-Stock banks, with the exception of the Allahabad Bank, the Alliance Bank of Simla, and the Oudh Commercial Bank, are all of comparatively recent date. The Allahabad Bank was registered in 1865 and the paid-up capital is now R. 30 lakhs of rupees. The deposits in 1917 were approximately R. 590 lakhs. The head office is at Allahabad, and there are fourteen branches with twelve sub-agencies. Although the bank commenced operations in 1865, the first branch was not opened until twenty-three years later, when a branch was opened at Allahabad. The Alliance Bank of Simla was founded in 1874. Its head office is at Simla. It has thirty-nine branches and eleven sub-offices. The paid-up capital in 1917 was R. 84 lakhs. The deposits in 1917 were over R. 11 crores. In 1916 the bank amalgamated with the Punjab Banking Company and the Delhi and London Bank, and in 1917 with the Bank of Rangoon. In June 1918 the position of the bank was as follows (the figures in brackets are the figures for June 1915): capital R. 87 lakhs (R. 30 lakhs), deposits R. 1,230 lakhs (R. 577 lakhs), net profit R. 9 lakhs (R. 5 lakhs). The Oudh Commercial Bank was registered in 1881. The head office is at Fyzabad and there are two branches. The paid-up capital is R. 5 lakhs and the deposits nearly R. 8 lakhs. Most of the other Indian Joint-Stock banks are of more recent date, as the following table will show:

Bank.	Head Office.	Date of registration.	Paid-up capital.	Deposits.	Number of branches.
			(lakhs)	(lakhs)	
Bank of India	Bombay	1906	50	470	..
Indian Bank	Madras	1907	10	41	4
Punjab and Sind Bank .	Amritsar	1908	3	30	4
Bharat National Bank . .	Delhi	1908	4	1	6
Bombay Merchants' Bank .	Bombay	1909	15	1	2
Central Bank of India . .	Bombay	1911	25	357	6
Bank of Mysore . . .	Bangalore	1913	10	61	7
Bank of Northern India .	Rawalpindi	1908	1	6	5
Jessore United Bank . .	..	1909	1	5	..
Co-operative Hindustan Bank	Calcutta	1908	1½	7	2
National Financing and Commission Corporation . .	Bombay	1912	11	36	1

Of the forty-three Joint-Stock banks which furnish returns to the Department of Statistics the majority (60 per cent) have been formed during the last fifteen years. The importance of these banks in the banking system may be gauged from the following data : [1]

(In lakhs of rupees.)

	Class I. (18 banks).	Class II. (25 banks).	Total.
Paid-up Capital . .	3,04	44	3,48
Deposits . . .	31,17	99	32,16
Cash balances . .	7,65	20	7,85

The paid-up capital of these forty-three banks is equivalent to 93 per cent of the paid-up capital of the three Presidency banks and 46 per cent of the cash balances. It will be seen, therefore, that these Indian Joint-Stock companies are not yet sufficiently so strong as might have been anticipated in com-

[1] There are in all 88 Indian Joint-Stock banks with 199 branches in 1917.

parison with the three Presidency banks of Bengal, Bombay, and Madras.

Before leaving the question of Indian Joint-Stock banks a reference may be made to the bank failures of 1913 and subsequent years. Owing to the failure of 1913–17 no less than 34 per cent of the total paid-up capital of Indian Joint-Stock banks has been lost. In the five years preceding the failures a considerable number of banks of mushroom growth sprang up in Western India (almost the proverbial home of speculation), in the Punjab, and in the United Provinces. Some of these banks attempted to make large profits without having a staff of experienced bankers. It was a case of an army going into battle without any trained officers and without any orders from the General Staff. Many of the banks had inadequate reserves against their deposits, and the balance-sheets were in several cases good examples of window-dressing. In 1910, for example, the percentage of cash to liabilities on deposits was only 11, and in very many cases the percentage was lower than this. This is hardly sufficient, having regard to local conditions, for these pigmy banks, since it was the pigmy banks that came to the wall. Many had an imposing capital but little paid up. The word "bank" was used in a way that exploited deposits from the unwary at rates of interest which made it impossible for money so obtained to be employed lucratively in any way, except in the most hazardous enterprises. In one or two cases banking, as we have seen, included medical attendance, coach-building, etc. The following table brings out the failures since 1913:

LIQUIDATIONS

Year.	Capital (in lakhs of rupees).		
	Number.	Authorised.	Paid up.
1913 . . .	12	2,74	35
1914 . . .	42	7,10	1,09
1915 . . .	11	56	5
1916 . . .	13	2,31	4
1917 . . .	9	76	25

The chief failures were the Indian Specie Bank with a paid-up capital of R. 75 lakhs; the People's Bank with a paid-up capital of R. 13 lakhs and deposits of R. 1,26 lakhs; the Credit Bank of India, the Standard Bank, Bombay, and the Bank of Upper India, each with a paid-up capital of R. 10 lakhs.

The liquidators' reports are sad reading. The report of the Accountants appointed in connection with the Specie Bank failure contains the following:

We have found the books in an incomplete state. They were not written up to date. . . . The general loan ledger contains receipts for miscellaneous advances, chiefly on the security of pearls. If we leave out pearls and share *badla* business, the amount of orthodox banking business pales into insignificance in comparison with the mammoth silver deals. . . . It is extremely disappointing to have to relate what can only be described as a miserable tale of the lowest form of fraud, the creation of fictitious debtors and the preparation of demand promissory notes in support of these. Summarising our remarks under the heading "False Accounts," we might say that the accounts submitted each half-year were rendered falsely to shareholders and the means of manipulating were usually applied through Nanabhai's accounts. False entries were carried through the books to and from the account of this Dummy Silver King, by which silver operations were disguised as debtors for loans, in whose hands were placed bogus demand promissory notes for presentation to auditors. When the audit was safely over the disguised figures disappeared and the mysterious Mr. Nanabhai resumed his manipulations of the silver market.[1]

The District Judge of Lahore's order of liquidation regarding the People's Bank contains the following:

> The applicant for compulsory winding up urged four points: (1) that the Directors have grossly mismanaged the affairs of the bank, lending to themselves or to companies in which they are directors or partners; (2) that the mismanagement has been such as to raise strong belief that the Directors' action has not been *bona fide*; (3) that the Directors have committed a criminal offence in paying the dividend of December 30 last out of capital; and (4) that in certain cases companies' assets have been deliberately made away with. For the last point the audit shows a debt of nearly R. 4 lakhs due from the Ganges Flour Mills, whereas the balance-sheet of that Company filed by applicant shows no debt whatever due to the Peoples' Bank. The case of the Cawnpore Flour Mills is similar. With regard to all these points I am not recording any definite finding one way or the other. It is possible that they may be satisfactorily explained. There is, however, a strong *prima facie* case made out which would justify criminal proceedings if proved. Under the circumstances I think that the applicant is entitled to receive compulsory liquidation.[2]

We are anxious not to exaggerate these failures. In the first place, they removed the weak spots from the Indian banking system, and to-day Indian banks are in a stronger position than ever before.[3] Secondly, they made men consider the necessity of overhauling the banking system to meet the new and changed conditions brought about by the great commercial

[1] *Pioneer*, December 21, 1913.
[2] *Englishman*, November 18, 1913. [3] Chapter XIV.

and industrial development in this country since 1904–5.

The strength of the comparative Presidency, Exchange, and Indian Joint-Stock banks is brought out in the following table:[1]

(In crores of rupees.)

	Paid-up capital.	Deposits.	Percentage of cash to liabilities.
Presidency banks . .	4	76	45
Exchange banks . .	28 *	53 †	63 ‡
Indian Joint-Stock banks	3	32	24

* Total paid-up capital. † Indian portion only.
‡ Calculated on the deposits and cash balances in India only.

VIII

A Central Bank

We now return to the question of a Central Bank. There is nothing new under the sun. It is almost equally true to say there is nothing new in the Secretariat of the Government of India. At the present time the proposal for an amalgamation of the Presidency banks is, it is understood, again under consideration, and its chances of coming to fruition are far rosier than at any time in its previous chequered history.[2] This question appears and reappears in a new garb from time to time. It was considered, as we have seen, in 1836, 1859, and 1867. In 1870 a member of the Viceroy's Executive Council (Mr. Ellis) wrote:

The change which I advocate as the best is the establish-

[1] Data are for 1917. [2] See Addenda and Corrigenda, p. 484.

ment of one State bank for India with branches at the Presidency towns. I do not by this contemplate the creation of an expanded Bank of Bengal. . . . I believe the Bank of France would furnish a model which, with suitable modifications, might be adopted for India.

In 1871 the Government of India were somewhat doubtful whether they could induce men of commercial ability and experience as well as of high standing and character, to come to India to manage such a bank. From this time until 1898 the question was lost to view until the question was mooted by several witnesses before the Fowler Committee. Mr. Alfred de Rothschild, for example, suggested a scheme for absorbing the Presidency banks into a State bank. He suggested that the capital of the bank should be the same as that of the Bank of England, and it should be held partly in gold and partly in securities. The bank should have power to issue notes against the whole of this capital, but the question of the amount of capital was a matter for further consideration with reference to the efficiency of the bank as a machine (1) for maintaining the Gold Standard, (2) for earning dividends for the shareholders, and (3) for aiding in the development of trade and industry. The bank would hold the Government balances, import silver for coinage free of duty, share in the profits of coinage, follow the Banks of France and Germany in their methods of protecting the export of gold, and maintain a steady rate of discount. He was of opinion that the bank should confine itself (like the existing Presidency banks) to internal operations and not take any part in exchange business. The Board of Directors would consist of representatives of the chief merchants and bankers, Government having the right to appoint its own representatives, as it was most desirable that the policy of the Government of India and that of the bank should be in complete harmony.

Sir Everard Hambro, a member of the Fowler Committee, drew attention to the advantages of a strong Central bank (1) in assisting currency policy, *i.e.* in carrying out regulations connected with the stability of exchange or the convertibility of the rupee, and (2) in developing the banking resources of India in times of stress and of curtailing them in times of slackness. He referred to the Committee's remark regarding the strengthening of banking arrangements and the adjusting of it to the growing requirements of Indian trade. He pointed out that in Europe the carrying out of currency laws had been entrusted to banks established or strengthened for that purpose;

> a strong bank, properly constituted, would be a powerful assistant in giving effect to any regulation having the convertibility of the rupee in view, and that, working under proper currency regulations, such a bank would be likely to carry them out in a more effective way, and in a manner more in harmony with the trade wants of the country, than any Government Department, however well administered, could possibly do.[1]

As we saw in Chapter V. the Secretary of State commended this to the careful consideration of the Government of India. In June 1901 it was proposed by Government temporarily to abandon the proposal on account of provincial and personal jealousies, and also on the score of expense, partly because it was then considered that additional capital could not profitably be employed throughout the year. In

[1] Page 42, C. 9390—1899.

July of the same year the Secretary of State accepted reluctantly the recommendation, but hoped that the question of a Central bank would again be taken up whenever there was a probability of its being successfully carried out.

In 1912 and 1913 when Indian finance was again under the full blaze of criticism in the Press and elsewhere, and before the Chamberlain Commission had been appointed, the late Sir Edward Holden again prominently brought the question into the sphere of practical politics at the annual meeting of the London City and Midland Bank in January 1913. "If," he said, "a bank, similar to the Bank of France, were established in India, with numerous branches in different parts of the country, and followed up by a greater development of sound banking institutions, then credit would be created by means of loans, discounting and borrowing would be increased, and 8 per cent bank rates would disappear."[1] An article on "A State Bank for India" in *The Times* of 14th March 1913 referred to the fact that the Presidency banks were inadequately capitalised, and being strictly compartmented were also unable to develop as they would do if all parts of the country were open to them.

There can be no question that a State bank would have a most salutary effect in securing the confidence of the people with money to invest. India suffers from a vast amount of infructuous capital which a State bank would be likely to draw forth in the shape of shares or deposits. Hitherto, the investment of money by deposit in banks has been on a much smaller scale than it ought to be. . . . Another

[1] Speech of Sir Edward Holden, Bart., at the Annual General Meeting of the London City and Midland Bank on 21st January 1913.

great advantage would be a far better utilisation of the capital of the concern than is possible in the case of the three Presidency banks with their existing limitations. The central institution would have branches in every part of India, and would be able to let the capital flow in the directions where it was most needed. The facilities it would have for financing trade would go far to eliminate the sharp seasonal divergences between discount rates in India. Given a State bank with large capital and plenty of resources, the Government could again keep its headquarters balances in bank custody without any apprehension of monetary disturbances in consequence of withdrawals, and, on the other hand, it would be able to depend on the bank to advance money if the needs of the State momentarily required the assistance.

The Chamberlain Commission had the advantage of two carefully prepared memoranda, one by Mr. Keynes in which Sir Ernest Cable collaborated, the other by Sir Lionel Abrahams, who submitted his memorandum with the concurrence of the Secretary of State. There are one or two criticisms with regard to Mr. Keynes' note, mainly concerned with the constitution of such a bank. It will, we believe, ultimately be preferable to follow the example of the United States, where the Democrats always opposed a Central bank. The leaders, therefore, set about devising a scheme which would accomplish the good results of a Central bank, and yet avoid the criticisms that such a creation would certainly produce. Mr. Keynes' memorandum clearly brings out the advantages of a State bank both to Government and to the mercantile community. These advantages include (1) the abolition of the independent treasury system, its place being taken by a large public or quasi-public bank, the absence of which was the cause of a system which resulted in large sums being drawn off the money market from time to time into reserve treasuries; (2) the discontinuance of the system of keeping large sums at loan for short periods in the London money market; (3) the management of a note issue by an agency possessing greater opportunities for increasing the note circulation; (4) the handing over to expert bankers financial and semi-financial work now done by officials, *e.g.* questions relating to balances, the paper currency, remittance, and loans on the London money market; vexatious criticisms in India and in London on details of finance would be avoided; (5) the release of Government balances and the development of the paper currency would benefit trade, especially by avoiding the large fluctuations in discount rates between the busy and slack seasons; (6) the increase in branch banking in many parts of India where they are almost entirely wanting; and (7) the introduction of re-discount facilities which would greatly assist the eventual development of Indian banking. The only argument of weight against the scheme is that of interference with vested interests. The Presidency banks are not hostile, and two of their directorates are certainly at the present time in favour of a State bank on certain conditions. The introduction of the scheme would, Mr. Keynes thinks, provide a wide margin of profit for the shareholders of the amalgamated Presidency banks to share in. Although the Exchange banks would not unlikely be opposed to change, yet greater stability in the Indian financial system would be entirely to their gain. Moreover, as the Government of India said in 1900–1901:

We cannot see that the Exchange banks make out a strong claim for protection, and a suggestion which has been made that a Central bank should be bound to make any and all remittances through their agency is out of the question. We could have wished that this contention of the banks (*i.e.* regarding State-aided competition), which appears to us to be untenable, had been supported by some clearer indication of the actual manner in which the competition they deprecate may be expected to prove unfair and injurious.

The Chamberlain Commission reported in 1914 that they regarded :

. . . the question, whatever decision may ultimately be arrived at upon it, is one of great importance to India, which deserves the careful and early consideration of the Secretary of State and of the Government of India. We think, therefore, that they would do well to hold an enquiry into it without delay, and to appoint for this purpose a small expert body, representative both of official and non-official experience, with directions to study the whole question in India in consultation with the persons and bodies primarily interested, such as the Presidency banks, and either to pronounce definitely against the desirability of the establishment of a State or Central bank in India at the present time, or to submit to the authorities a concrete scheme for the establishment of such a bank fully worked out in all its details and capable of immediate application.

As the war broke out some months after the publication of the Report, the matter was deferred. In the interval questions were asked in the Imperial Legislative Council, and in March 1919 a resolution was brought forward for the appointment of a Committee to recommend the measures required for organising and developing the banking system of the country. In support of this resolution the recommendations of the Chamberlain Commission just quoted and of the Indian Industrial Commission 1918 were referred to. The latter Commission asked :

> . . . for the appointment at the earliest possible date of an expert Committee to consider what additional banking facilities are necessary for the initial and for the current finance of industries ; what form of Government assistance or control will be required to ensure their extension on sound lines as widely as possible throughout the country ; and whether they would be of provincial or of imperial scope, or whether both these forms might not be combined in a group of institutions working together.

The Industrial Commission referred mainly to the development of industrial banking. Sir James Meston on behalf of Government was unwilling to undertake at the moment the wide inquiry which Honourable Members were pressing Government to carry through. His reason was the cogent one that Government are up to the eyes with urgent and necessary work connected with the Reforms Scheme. Government, however, were prepared to act on the recommendation of the Industrial Commission and to appoint a Committee on industrial banks. The great and complex problem of Indian banking reform rests here for the present.[1] Since the bank failures of 1913 the whole question has been greeted with a chorus of criticism followed by a good deal of inevitable confusion in regard to this extremely difficult matter. No one seeks to arraign the entire Indian banking system ; but there are not wanting critics who believe there is a good deal of timid slackness in regard to reform, and that the time has come for a public audit.

[1] See Addenda and Corrigenda, p. 484.

CHAPTER XIV

THE INDIAN BANKING SYSTEM (*continued*)

To the man of average intelligence who takes an interest in things general, the man in the street in fact, there appears to be something of the glorious uncertainty of cricket as to what function each class of bank performs in the Indian banking system. We propose in this chapter to look into this, and to describe the business transacted by the various classes of banks.

I

THE BUSINESS OF THE PRESIDENCY BANKS

First as to the Presidency banks. The business of the Presidency banks of Bengal, Madras, and Bombay is restricted by the only banking legislation on the Indian Statute Books, viz. the Presidency Banks Act No. XI. of 1876 as amended by Act V. of 1879, Act XX. of 1899, and Act I. of 1907.[1] The

[1] Act XI. of 1876 will be found in Vol. II. (fourth edition) of the *Unrepealed General Acts of the Governor-General in Council*, pp. 484-517 (Superintendent, Government Printing, Calcutta); Act V. of 1879 in vol. iii. pp. 4-5; Act XX. of 1899 in vol. v. p. 480; Act I. of 1907, vol. vi. pp. 98-100.

business of these banks is also restricted by the bye-laws made under Section 63 of the Act of 1876. The three main restrictions are (1) the prohibition from dealing in exchange; (2) the prohibition from raising funds in London; and (3) the restriction on lending. On the other hand, the Presidency banks have the privilege of holding a portion of the Government balances.

In Sections 36 and 37 the class of business is laid down. Section 36 authorises the bank to carry on the following: (1) the grant of advances, loans, and credits on the security of (*a*) stocks, bonds, etc., issued by the British Government, the Secretary of State for India, the Government of India, Guaranteed and Assisted Indian Railway Companies, Municipal and Local bodies of various kinds in India; (*b*) bullion or other goods deposited with or assigned to the bank, or of which the documents of title are so deposited or assigned; (*c*) accepted bills of exchange and promissory notes endorsed by the payees, and joint and several promissory notes of two or more persons or firms not connected with each other in general partnership; the Bank of Madras may also lend on Ceylon Government securities, but may not hold such securities, whether as security for loans or as investments (see 4 below) in excess of the amount of the deposits at its Ceylon branch; advances and loans may be granted to Government without specific security; (2) the realising of securities mentioned in (1) when necessary; (3) the drawing, discounting, buying, and selling of bills of exchange and other negotiable securities payable in India or Ceylon; (4) investing in any of the stocks, bonds, etc., mentioned in (1), and selling them when required; but the Banks of Bengal and Bombay may not invest in securities of the Government of Ceylon; (5) the receiving of money on deposit and current account; (6) the buying and selling of gold and silver; (7) the borrowing of money in India for the purposes of the bank's business, and the giving of security for money so borrowed by pledging assets or otherwise (this was added by Act V. of 1879); (8) the transacting of business for Government. It may be well to quote this comprehensive section.

It shall be also lawful for the bank under any arrangement or agreement with the Secretary of State for India in Council: (1) to act as banker for, and to pay, receive, collect, and remit money, bullion, and securities on behalf of the Government; (2) to undertake and transact any other business which the Government may from time to time entrust to the bank. And the Directors shall have power from time to time to arrange and settle with the Governor-General in Council the terms of remuneration on which such business shall be undertaken by the bank, and also as to the examination and audit from time to time of the accounts and affairs of the bank by or on behalf of the Governor-General in Council.

There are subsidiary kinds of business mentioned in Section 36, such as (1) the grant of loans to Courts of Wards for a period of not more than six months on the security of estates under their charge; (2) the selling of property which may come to the bank in satisfaction of any of its claims; (3) acting as agent on commission to buy and sell securities, to receive the principal and dividends, and to remit principal and dividends at the risk of the owner by bills of exchange payable either in India or elsewhere;

(4) drawing bills of exchange and granting letters of credit payable out of India for the use of principals for the purpose of the remittances mentioned in (3); buying bills of exchange payable out of India at a usance not exceeding six months to meet such bills or letters of credit.

In Section 37 the granting of loans or advances is limited by the following restrictions: (1) the loans or advances may not be for more than six months; (2) they may not be on the security of stock or shares of the bank, or on the security of landed property, except in the case of loans to Courts of Wards referred to in the preceding paragraph; (3) except on the security of the stock, etc., referred to in the beginning of the previous paragraph (Section 36 (1), or of bullion or goods, bills for any individual or firm may not be discounted beyond the limit prescribed by the bank's bye-laws; nor may the bank lend or advance in any way to any individual or firm an amount exceeding on the whole at any one time the said limit; (4) it may not discount or buy or take as security for an advance, loan, or credit a negotiable instrument of any individual or firm payable in the town or at the place where it is presented for discount which does not carry on it the several responsibilities of two persons or firms not connected in general partnership (the bye-law places the limit specified for the purposes of Section 37 at R. 6 lakhs for the Banks of Bengal and Bombay and R. 5 lakhs for the Bank of Madras); (5) it may not discount, or buy, or take as security for an advance, loan, or credit any negotiable security payable after a longer period than six months. It is not generally known even by those who draw their bank balances down to the bone that customers may be allowed an overdraft to a sum not exceeding R. 10,000 without security.

It is also prescribed in the Act that a Presidency bank must submit to the Government of India any information regarding its affairs and any of its documents that the Government of India may require. It must publish such statements of assets and liabilities as the Government of India may prescribe. Of the other wholesome restrictions those relating to the directors and staff are not without interest, especially to those of us who remember the happenings of 1913 in the Indian banking world when so many failures took place. The number of directors is fixed at not more than nine and not less than six. The two senior directors must go out of office at the annual general meeting, but may be re-elected. A director must hold a minimum of R. 10,000 in his own right of the bank's shares. Directors, promoters, agents, and managers of any other joint-stock bank established, or having a branch or agency or advertised as about to be established, or to have a branch or agency, in British India are automatically disqualified from being eligible for the directorate of any Presidency bank. Government officials, unless specially authorised by the Government of India, holders of any other office of profit under the bank, bankrupts, lunatics, and directors who are absent from the Board for more than three months, are also ineligible. Two persons who are partners of the same mercantile firm, or one of whom is the general agent of or holds a power of procuration from the other or from a mercantile firm of which the other is a partner, may not serve as directors at the same time.[1] No secretary, inspector, manager, or accountant, and (without the previous sanction of the Board) no khazanchi, cashier, or shroff in the service of a Presidency bank may engage in any other banking or commercial business as principal or agent, or act as broker or agent for the sale or purchase of securities.

We have seen in the preceding chapter that new branches or agencies cannot be opened outside the "sphere of influence" of the bank, except with the previous consent of the Government of India. No agency of a Presidency bank in a Presidency town (*i.e.* the Agency of the Bank of Bengal in Bombay) may grant advances, loans, or credits, or open deposit or current accounts, or discount bills drawn payable in the Presidency in which it is established, or act as agent on commission, or transact any business except as agent of its principal bank or any of its branches or agencies.

The Act of 1876 (Section 63) also prescribes the making of bye-laws. These bye-laws were revised in 1907, and refer (1) to the limits of advances as required by Section 37 referred to above; (2) to the conditions under which advances may be made to directors or officers of the bank or their relatives and connections; a director is precluded from having any voice in dealing with applications for the grant of accommodation to himself, his partners, co-trustees, employees, and relatives; (3) to the particulars to be given in the half-yearly balance sheet. The remuneration of the directors and some other matters are fixed by bye-laws. No bye-law is valid unless it is consistent with the provisions of the Act and has

[1] Sections 24, 26, and 27 of the Presidency Banks Act XI. of 1876.

been approved in writing by the Government of India.

II

The Business of the Exchange Banks

Next with regard to the Exchange banks. The business of these banks may be divided into (*a*) exchange business and (*b*) ordinary business. Bills against the export trade are drawn, D–A (documents on acceptance) and D–P (documents on payment), and are largely drawn at three months' sight. They are purchased by the banks' branches in India. The D–P bills are held by their London offices until they are retired or paid at maturity. The D–A bills as a general rule are discounted, or rediscounted, immediately after acceptance. They are rediscounted with the English Joint-Stock banks and the Scotch banks, or with bill-brokers financed by these, and especially in times of stringency with the Bank of England. These bills may be held for a time by the Indian Exchange banks in London. This would occur when business in India was stagnant, or when money was difficult to employ in London. To the extent to which the D–A are rediscounted immediately after acceptance (which they are in the great majority of cases) the Indian export trade is financed not with the funds of the Exchange banks, except from the time of the purchase of the bills in India to their arrival in London, but with the funds of the British banks, *i.e.* with British and not Indian capital.

Next with regard to the import trade. The

Exchange banks also finance the import trade through their London offices. Bills are drawn on the consignees D–A or D–P, in sterling for the most part, payable with interest from the dates of the bills to the approximate dates of arrival of the remittances in London, by demand draft on London. These bills are never rediscounted. Thus the import trade, it will be seen, is financed to a much greater extent than the export trade with funds of the Exchange banks alone. The Exchange banks' purchases of Indian export bills represent transfers of their funds to London. Their advances against import bills are the return of these funds. As exports normally exceed imports, the deficiency of import bills is made good by shipments of gold coin and bullion and also silver bullion from London and elsewhere, and to a very small extent by transfers of Government Rupee Paper from London to India, and as regards the balance by purchases of Council bills and telegraphic transfers. The last are freely resorted to when exports from India are at their height, and when it is to the banks' interest to move their funds back to India in the shortest possible time. The Chartered Bank, for example, may buy on Tuesday these transfers and by the following day [1] the Calcutta, Bombay, and Madras branches will find themselves in funds. This, in brief, is an outline of the banks' exchange business proper in ordinary times.

The Exchange banks also do an ordinary banking business, and in this they have as competitors both the Presidency banks and the Indian Joint-Stock banks. They compete with these latter banks in raising deposits, whether on account current or as

[1] In normal times before the present telegraphic delays.

fixed deposits. Their deposits have increased very considerably during the last few years, and in the unrestricted field of ordinary (*i.e.* apart from exchange) business the banks have made great progress. A large portion of the financing is now carried through by means of money actually borrowed in India. Mr. Toomey, a representative of the Exchange banks before the Chamberlain Commission, depreciated the importance to the Exchange banks of attracting deposits in London for use in India, a part of their business which, as Mr. Keynes has rightly pointed out, was one on which formerly they greatly prided themselves, and on which they claimed special consideration. The terms for deposits, both on fixed deposit and on current account, are as a rule more favourable than those of the Presidency banks while less favourable than those of the Indian Joint-Stock banks. The Exchange banks also compete with these banks in loans, overdrafts, and discounts. It will be seen from the table on the map that the Exchange banks have forty-six branches in India as compared with sixty-nine branches (including head offices) of the Presidency banks and eighty-eight head offices and 199 branches in the case of Joint-Stock banks. The Indian deposits of the Exchange banks in 1917 amounted to £36,000,000 as against £50,000,000 of the Presidency banks and £21,000,000 of the Indian Joint-Stock banks. Inasmuch as the Exchange banks are not under the obligation resting on the Presidency banks of maintaining, even during the busy seasons, large cash balances, it may be said that their deposit position is rather better than a comparison of their figures with those of the Presidency banks (£36,000,000 against £50,000,000) or the normal percentages of cash to liabilities would lead one to think. The Presidency banks' deposits include the balances of the Exchange banks. On the average of the five years ending 1917 the entire cash balances (in India) of the Exchange banks on December 31 amounted, it may be noted, to 64 per cent of the total cash balances of the Presidency banks. Upon the strength of the deposits will a bank's participation in the loan, overdraft, and discount business depend. The extent then of the Exchange banks' participation in this ordinary banking business will readily be understood. The representatives of the Exchange banks before the Chamberlain Commission said that they were to some extent in competition with the Presidency banks, and illustrated this by the branches of the Exchange banks in Delhi and Amritsar which foster in these cities their Manchester connection by advances on piece-goods. It must, however, be remembered that when exchange business is at its maximum, in February and March of each year, the funds of the Exchange banks are much more largely invested in the exchange class of business than at other times. This is important, as it results in some impairment of their power to compete with banks other than Exchange banks in the discount market.

III

The Business of the Indian Joint-Stock Banks

There are no restrictions at present on the Indian Joint-Stock banks. It is, therefore, unnecessary to set out in detail the business which they undertake. They perform the ordinary business of banking and are, in other words, credit factories. Many of these have not yet recovered from the horrible catastrophes of 1913 and the following years, although some of them have successfully weathered all storms, thanks to efficient management. The Alliance Bank of Simla, which absorbed the Delhi and London Bank in 1916, is a member of the Exchange Banks Association and does exchange banking in addition to the business of an ordinary Indian Joint-Stock bank.

IV

Post Office Savings Banks

In addition to the Presidency banks, Exchange banks, and the Indian Joint-Stock banks described above, there are the Post Office Savings banks. Government Savings banks were established in the Presidency towns between 1833 and 1835. That in Calcutta was founded in 1833 after the bank failures of 1832. In 1870 district savings banks were instituted in connection with selected district treasuries. The Post Office Savings banks, opened in all parts of India in 1882 and 1883, absorbed the district savings banks' business in 1886, and that of the Presidency savings banks in 1896. The whole of the savings bank business of Government is a branch of the postal administration. As in the United Kingdom, Government do not maintain any specific reserve against these deposits, these being treated as unfunded debt and used for capital expenditure. In 1918–19 the balance of deposits amounted to approximately R. 19 crores or 19 per cent less than they were five years ago and 24 per cent above those of ten years ago. The interest (3 per cent) in 1918–19 was R. 47 lakhs, and the number of depositors was 1,638,000.[1] These savings banks attract the savings of the intelligent middle classes in towns, but investments in land on mortgage still appeal most strongly to these classes, and the farmer who happens to have spare funds declines as a rule to invest in anything else. Generally speaking, the ordinary person away from the Presidency towns believed that there were few other really attractive and safe fields for investment, as is usually the case in all countries with an undeveloped banking system. There are no land mortgage banks in the proper sense of the term. In regard to this the Finance Member of Council (Sir James Meston) made in the Legislative Council in March 1919 some pertinent remarks as to their value in a country's banking system :

> Everybody will recognise that it (the Land Mortgage bank) is a very different sort of institution from the ordinary commercial bank. It must be an institution which is financed very largely by long-term deposits in order to ensure that it shall not be embarrassed in its handling of advances to landlords and estate holders. It is a type of bank which I do hope to see established in this country ; but I hope to see it done in every province, or even in smaller areas in every province, started very largely by local enterprise and maintained under local supervision and control. It is the local knowledge and neighbouring control by groups of intelligent landlords that are going to make the land mortgage business a success in this country, and I do not think it is any use for Government to undertake work of this sort on a large scale.

[1] As on March 31, 1918.

V

Co-operative Banks

Another class of banking is Co-operative banking, which dates from the Co-operative Credit Societies Act (No. X. of 1904). The question was first raised by Sir W. Wedderburn with the assistance of the late Mr. Justice Ranade, and a scheme of Agricultural banks was approved by Lord Ripon's Government but vetoed by the Secretary of State. Fifteen years later Sir Frederick Nicholson was deputed to report on the advisability of introducing Agricultural and other Land banks into the Madras Presidency in order to relieve the agriculturist. No action was taken; but some years later, after the famine of 1900, the Famine Commission made a recommendation which prompted Lord Curzon to appoint a Committee with Sir F. G. Law, then Finance Member, as its Chairman. A report was submitted to Government recommending that Co-operative societies were greatly to be encouraged. Act X. of 1904 became insufficient to meet the requirements of a growing demand for Co-operative credit, and in 1912 a new Act—the Co-operative Societies Act (Act II. of 1912)—was passed. This Act provided for the formation of Central banks, *i.e.* banks formed by a union of primary societies or by a union of primary societies and individuals. The chief functions of these banks were: (1) the attraction of deposits from non-agriculturists, *e.g.* money-lenders and the professional classes, to supplement the finances of primary societies; (2) the utilisation of the excess funds of some societies temporarily to make up the shortage in others; and

(3) the supervision and guidance of the affiliated societies. The first of these functions is from our point of view all-important. These banks attract deposits in an amazing way, especially in Bengal. In Bengal such banks are fifty-two in number and were started after 1912. They each attract, on an average, deposits to the extent of R. 80,000, and this suggests that the people who have money in the interior of Bengal are ripe for the banking habit. Of the total working capital of these banks in Bengal (68 lakhs) R. 10 lakhs form the share capital and R. 42 lakhs are deposits from the public, chiefly professional classes or people who might themselves have been money-lenders. Every one who knows Bengal knows that the money-lenders and the traders of the interior keep large amounts of cash in their possession for want of proper banking facilities as much as from habit and tradition. The Registrar of Co-operative Societies in Bengal agrees in thinking that the experience of the existing Central banks shows that if banks of any kind, not necessarily Co-operative, were opened at the headquarters even of the smaller administrative divisions of the district or at the bigger markets of the interior, large untouched repositories of capital would be tapped. In a province like Bengal, with its even rainfall, its magnificent water-ways, its valuable jute and enormous paddy production, and the impossibility of a general failure of crops, the future of such a system of small banks, even if opened only one or two days a week, would be of untold value. If ably directed from Calcutta by a large institution spending every year a lakh or two in propaganda work, the results might be great. Similar results might also be obtained from other provinces.

In June 1914 the Government of India issued a Resolution surveying the progress of co-operation in the previous ten years. A little optimistic in tone, the Resolution inculcated the most specious and unimpeachable maxims. It emphasised the financial organisation of societies, and stated that "the responsibilities introduced by the addition to the Co-operative organisation of Central and Provincial banks are of a serious character." In October of the same year a Committee was appointed to examine whether the movement was progressing on sound lines, especially in its financial aspect and in its higher stages, and to make recommendations. The Report of the Committee[1] is the *locus classicus* regarding the modern financial aspect of Indian Co-operative banks. Government have hitherto given direct financial aid to co-operation in three ways only, viz. : (1) by the grant of initial advances to new societies; (2) by guaranteeing the interest on the debentures of the Bombay Central Bank; and (3) by special advances in two provinces to meet difficulties anticipated in connection with the war. The policy of Government has been to disclaim all financial responsibility and to make no definite promises of monetary support, in order that the movement shall be genuinely co-operative and self-supporting. Difficulties have arisen in regard to the discounting of the promissory notes of societies, and the Committee suggested that this should be done through the Presidency banks or by means of a State (Co-operative) bank. The Committee pointed out that it was "in the highest degree improbable that

[1] Report of the Committee on Co-operation in India (1915). (Government Press, Simla.)

the commercial banks will voluntarily undertake the work. It may perhaps be possible for some arrangement to be entered into with the Presidency banks under which they will undertake the duty of rediscounting agricultural paper for provincial Co-operative banks. Failing this, according to the European precedent, the only alternative solution appears to lie in the establishment of a State Co-operative Apex bank. There are, of course, other advantages, besides the provision of the requisite financial stability, which would accrue to co-operation from the foundation of such a bank." Action is now being taken on this Report. The Committee was careful to point out that co-operative banking is governed by the same basic laws of finance as ordinary banking, and it is peculiarly hard when the securities held for loans cannot be turned into cash in the ordinary market. The relations that have been formed with the Presidency and Joint-Stock banks did not take the form of discounting societies' paper but of loans or cash credits, secured in some cases by pro-notes of societies and in other cases by the guarantee of men of substance connected with the Co-operative bank.

A table has been drawn up to show at a glance the working capital for 1917–18 by provinces.[1] It will be seen that the paid-up share capital amounts to R. 2,45 lakhs, loans and deposits to R. 10,80 lakhs, the reserve fund to R. 1,15 lakhs—a total of R. 14,40 lakhs.[2]

Co-operative banking owes much to the official

[1] Table No. 29, p. 406.

[2] This sum is in excess of the actual funds utilised in Co-operative societies, since loans granted by Provincial banks to Central banks are necessarily counted twice—once in the Provincial bank and once in the Central bank—and loans granted by Central banks to primary societies are similarly duplicated.

Registrars of Co-operative Societies in each province and to a small but expanding body of honorary workers, gifted with admirable enthusiasm. At the same time, those who have a ghost of a notion of Co-operative banking in India agree with the Industrial Commission that banking facilities for the great majority of agriculturists simply are non-existent, and the Co-operative credit movement is still in its early juvenescence.

VI

Industrial Banks

The neglect of industrial banking was one of the results of many years of easy-won prosperity which put many of our organisers into an overfed slumber. Out of this the tonic of war has awakened them with consequences that may be surprising. There is a considerable accumulation of capital in the country which, especially in the last few years, is being added to at a considerable rate. This capital is unfortunately invested in restricted lines, and the small *entrepreneur* is thus greatly hampered by the dearth of banking facilities. Capital investments in India in 1917–18 are estimated approximately at £570,000,000, of which 81 per cent represents capital outlay, debts, and loans, and 19 per cent the paid-up capital of Joint-Stock companies. The capital invested in industries is confined mainly to the jute, cotton, and woollen mill industries, and to mining. These cover 6 per cent of the total. In recent years a very great advance in industrial development has been made, *e.g.* by the establishment of iron and steel works at

Jamshedpur and Kulti; of hydro-electric installations in Mysore, Kashmir, and on the Western Ghats. Among the impending schemes are the large additions to the Tata Iron and Steel works, the creation of a group of subsidiary industries to convert the steel into manufactured articles, the smelting of zinc, and the production of sulphuric acid, notably in Burma, and the production of "heavy" chemicals. The schemes, so far as finance goes, have already been arranged. There are many others, but banks and more banks will be required for them. We cannot expect our Presidency banks to go into the sphere of industrial finance and to tie up their deposits. Moreover, their business is restricted by law in regard to loans and advances, as explained in an early part of this chapter. The Exchange banks have their hands full. During the height of the busy season they have in normal times no spare funds. A proof of this is the way in which these banks buy Telegraphic Transfers from the Secretary of State. Moreover, there is the unfortunate fact that the directors and headquarters of the Indian Exchange banks are not in India, and this would be a serious drawback for industrial banking. It remains, therefore, for Indian Joint-Stock banks themselves to take up the burden under wise and cautious management. There is only one such bank at the present time—the Tata Industrial Bank with an authorised capital of R. 12 crores. This Bank's special business is to finance the development of new and existing industries by making advances to such concerns or by underwriting their debentures. In addition the Bank does ordinary banking business, including that of exchange. The mixing up of industrial and ordinary banking has its dangers. Its advantage is that if only the financing of industries were undertaken the Bank's activities would be so restricted as to affect the return on a necessarily large capital. Its danger is the tying up of short-term deposits. Share and debenture capital and long-term deposits only should be used for this purpose, and if necessary the prohibition of using short-term deposits should be enforced by law.

In a note prepared for the President of the Indian Industrial Commission [1] we showed certain important features of the Industrial banks of Germany, Japan, and other countries. The great commercial banks of Germany, the Grossbanken, in addition to the ordinary business of attracting deposits, granting loans, and discounting bills, undertook the supply of capital to promote the founding of an industry, which is not ordinarily considered proper banking business in this country, although short loans for this purpose are not unusual. They devoted capital and credit to the building of works, plant, etc., on a large scale, and they took a close interest in the industry to which they had given their support. They floated new companies, either by inviting subscriptions from the public (*Zeichnung*) or by themselves (*Einführung*). In this latter case a bank or syndicate of banks took up the shares, and they could sell these after a year, since according to Article 41 of the Bourse Law they were permitted to place the shares on the Stock Exchange on the expiry of one year, and then only after the publication of the first balance-sheet. The banks also regulated the shares by buying when they

[1] Minutes of Evidence, vol. v., Superintendent, Government Printing, Calcutta. Copies of the note may also be obtained separately from the Department of Statistics.

were extremely low, or selling when they appeared to be unduly high. They also bought and sold securities on a large scale on their own account, but they did not ordinarily engage in the speculative selling or buying of shares. In short, the Grossbanken acted as issuing houses, underwriting issues and placing loans. The relations with the Stock Exchange were close. In Berlin, it is understood, all bankers were members of the Stock Exchange. Part of a German bank's business was to all intents and purposes that of a stockbroker. The eight Grossbanken had in 1912 a capital of nearly £60,000,000 with a reserve fund of £19,000,000. The deposits were £241,000,000. The Deutsche, the Disconto-Gesellschaft, and the Dresdner had each a capital of £10,000,000. Their deposits were £79,000,000, £30,000,000, and £44,000,000 respectively. Their dividends, in view of their large capital, were not so high as those of the Presidency or Exchange banks. Their capital was, in other words, relatively high in comparison with their total business. The Grossbanken carried from 7 to 8 per cent, while our Presidency and Exchange banks earn from 12 to 18 per cent. The capital reserves and other funds belonging to the Grossbanken were about one-third of the deposits. The banks as a general rule invested their funds in such a way as to be ready to pay one-third of all outsiders' funds (*fremde Gelden*) irrespective of whether payable on demand or after longer or shorter terms. The deposits were very systematically collected. In addition to the head offices there were for this purpose (1) *Filialen* or branches; (2) *Kommanditen* and agencies; and (3) *Depositen-kassen* or Deposit-offices, which are so conspicuous in German towns. It is difficult to find an exact English equivalent of *Kommanditen*, but "silent partnerships" is the nearest equivalent. Originally these "Commandites" were private houses in which the Grossbanken had a share of the profits owing to their having supplied capital, *e.g.* Dreyfuss & Co. in Frankfort, and S. Kaufmann & Co. in Berlin. The *Depositen-kassen* were primarily to facilitate connections between the banks and holders of cash, especially the smaller tradespeople. At the same time they were to take the place to some extent of the rapidly disappearing private banking houses and also to facilitate the placing of securities issued by the parent bank. Thus these *Depositen-kassen* were originally established to attract deposits and to deal in securities on a commission basis. They grew, however, until they are more or less complete banking institutions. They strengthened the bank's issuing power by bringing a larger circle of customers who purchased the bank's securities. By means of these too the banks were able to extend their cheque, *Giro*, and clearing-house business, and thus to diminish the need of cash and at the same time to develop credit.

The chief ways in which the Grossbanken lent their credit were: (1) by secured overdrafts on current account; (2) by discounting mercantile bills; (3) by acceptances; (4) by advances on securities; (5) by unsecured credit or *blanko Kredit*; (6) by advances on goods and goods in transit; and (7) by advances on book debits. Under (4) is included the "Report" on contango business. Secured overdrafts were by far the most important, followed by the discounting of bills, acceptances, and advances on securities. *Blanko Kredit* was the next important as a rule. The credit under (1) might have been secured by a general hypothecation of the firm's assets, and included raw materials, plant, manufactured goods, and the land belonging to the factory or firm. It was also possible to secure an advance on current account by sureties. The bank did not hold the goods as in the case of advances on goods (No. 6). The prime discount bills throughout the German discount market were the acceptances of the six chief Berlin banks. According to the regulations of the Berlin Bourse these prime bills were payable in Berlin or at a place where there was a branch of the Reichsbank. They were for at least 5000 marks in amount and ran for not less than two nor more than three months. The margin between the discount of prime bills and the commercial bills amounted to $\frac{1}{4}$ to $\frac{1}{8}$ per cent. Excessive acceptance credit was looked on with disfavour by some financial authorities who regard it as kite-flying or accommodation paper. Sometimes such credit was not repaid at maturity. The bill was accepted by the bank and taken by the borrower to another bank which discounted it, and with the proceeds the old acceptance was taken up. To the banks this form of granting credit had the advantage that it required no effective funds. The difference between current account credit and acceptance credit was that the borrower received cash in the former case and accepted a bill in the latter. The greater portion of bank acceptances originated through domestic or foreign trade. Advances on securities formed a considerable portion of the bank's business. The margins differed according to the class of paper; *e.g.* German securities bearing a fixed rate of interest 10 per cent, domestic shares 25 to $33\frac{1}{3}$ per cent, and foreign shares 25 to 50 per cent. A large portion of the advances on securities was merely speculative loans for dealing in securities and was sometimes a source of continual worry to the banks. The Report or contango business was Stock Exchange loans for one month, for which the bank became the real owner of the securities. In granting *blanko Kredit* the applicant's financial standing was looked into. These German Grossbanken had a wealth of detail regarding business men in their "secretariats." Information was collected by A. Schimmelpfeng, Berlin, and similar firms. Schimmelpfeng had private agents throughout Germany. The banks also give information to Schimmelpfeng in the interests of trade. Each piece of information was paid for at a lower rate by subscribers than by non-subscribers. The banks in giving *blanko Kredit* could inspect the firm's books if they wished. It was seldom granted to other than business men, at least not in large amounts. Advances on goods and goods in transit occurred when the creditor held goods for better prices or goods which are consumed in certain seasons of the year. The banks, to be fully secured, had the goods in their actual possession, but the amount of business done in this way was insignificant. Advances on book debits (not unknown in Indian banking where mills sometimes hypothecate their outstandings to the banks) were not popular. It was done only after investigation by the bank's officer, who examined the books and made the necessary inquiries. The book debit was repayable within three months. The bank advanced from 50 to 75 per cent of the debt, and the amount of the debt was not less than 200 marks. The bank reserved to itself the right of informing the purchaser of the goods that the prior claim had been ceded to the bank.

The Grossbanken played an important part in the industrial development of Germany from 1870, and especially since 1888, which marks the beginning of a period of vigorous development. The eight Grossbanken were represented on no less than 697 companies, chiefly trading concerns and banks, machine construction and instrument-making, mining, smelting, and salt-works, and foreign companies. One large bank stated a few years ago that it had representation on the directorate of 200 companies. As the late Sir Inglis Palgrave pointed out in 1916:

Among them (the banks) is one which controls mines at Bochum, a place which is in the centre of the "Iron" industries of Germany, not far from the enormous works of Krupp & Co., which are known throughout Europe. Another carries on a factory for working in cast steel, the business of another is to establish waterworks on the Continent of Europe, another works mineral oil, another salt works and salt-baths, some undertake mines and smelting-works, others smelting-works only, others work in aluminium, others in copper and brass and in making metal screws. We may also mention, to show the varied industries assisted, that the bank also appoints the Vice-Chairman of a company which makes the machinery employed in the works required for storing electricity in connection with different industries, for works employed by companies which deal with the transmission of mechanical power, and also for companies established to supply the requirements of railways, and also for those of light lines used in agriculture. They are also connected with eight insurance companies, both for life insurance and insurance of goods which are transmitted by sea and river and by land. It is easy to see how these different industries may assist each other by undertaking different parts of a considerable undertaking. To control these various industries the Deutsche Bank's representative is the Chairman or Vice-Chairman of the governing bodies of fifty important companies at least.

These banks were invaluable in the development of foreign trade. Before the war, for example, the Deutsche Bank had a representative (who was frequently Chairman or Vice-Chairman) on the Board of Directors of two companies connected with London, two with Constantinople, one with Bucharest, one with Bagdad, two with Zurich, one with Vienna, one with Barcelona, and one with Salonika. "One difference," said a German bank director to the American Monetary Commission, "between the banks of England (and he might equally truly have said of India) and Germany is that in England the primary purpose of the banks seems to be to secure large earnings for their shareholders. In Germany our banks are largely responsible for the Empire, having fostered and built up its industries." The German banker had to be ready to become a director of the company which he assisted, and to be familiar with the general conditions of that industry in order to control the necessary expansion. Development companies skilfully handled might introduce into India much good business, and if, like the German banks, they got a deserved reputation for the soundness of the ventures which they initiated, there would be a ready market for their shares.

Space does not permit of anything more than a passing reference to the Industrial Bank of Japan (the Nippon Kogyo Ginko) and the British Trade Corporation. The latter was founded as a result of the Farringdon Committee's report and its charter precludes effective competition with the ordinary business done by the British Joint-Stock banks. The former bank does ordinary banking, including exchange business, in addition to its special works of industrial banking. It was founded on the French model of the Crédit Mobilier of France and assists industry just as the Hypothec banks assist agriculture. The bank was established in 1902 as a Joint-Stock Company under the Law of the Industrial Bank of Japan, which was promulgated in March 1900 as Law 70,[1] and possesses a paid-up capital of £2,000,000 or 20,000,000 yen, of which more than 755,000 yen is held by foreign capitalists. The bank had a Government guarantee of a 5 per cent dividend for five years after its establishment. The business of the bank is under the direct control of Government, which appoints the Governor and Deputy-Governor in addition, it is understood, to holding a very considerable portion of the share capital. The bye-laws, like those of the Indian Presidency banks, require the sanction of the Government. These bye-laws forbid the loan of an amount exceeding half of the bank's paid-up capital on urban land or industrial buildings; its debentures must not exceed ten times the paid-up capital and the value of certain securities held by it. There is, in short, a considerable degree of control and also indirectly of support from Government.[2] The Provincial Hypothec banks (Noko Ginko)

[1] See Appendix XIII. of the note prepared for the Industrial Commission, where the laws and bye-laws are given *in extenso*.

[2] The Government of Japan can assist industry through the banks, as in 1914–15 when rice fell in price. The chronic depression was made worse by the war. Government requested the Bank of Japan (founded 1882) and the Yokohama Specie Bank (1880) to give every assistance to importers and exporters. It made the Hypothec bank (1896) and the Provincial Hypothec

act as local banks for agriculture and industry. Each has a capital of 200,000 yen or upwards, and there is one in every prefecture. The lines of business transacted by these banks are similar to those dealt with by the Hypothec bank, only in a smaller degree.

In the preceding paragraphs we have dealt with the introduction of industrial banking into the Indian banking system in perhaps a somewhat platitudinous way. The subject commands attention because we are only on the threshold of the work, and a gigantic field lies yet untouched. Meantime, amid many difficulties, including the prevailing *vis inertiae*, one bank has been established, and it is probable that there will be in the not distant future a considerable development of this class of banking. Now that the war is ended, Indian industry will require financial assistance in a fairly large way, because new schemes will receive more encouragement than hitherto. Old industries will require to be renovated, and such industries, to enjoy the fruits of large-scale production, will have to be conducted on more ambitious lines. Then there are the small industrialists, with whom banks must keep in close touch to examine their new industrial projects and to afford assistance to approved enterprises. It is new enterprises and even promising schemes by small concerns that do not at present obtain the same amount of banking encouragement here which they do in some other countries, notably, of course, in Germany before the war. This means that the organised aid of banking will be essential, especially

banks accommodate small manufacturers in the provinces, to the extent of 5 million yen, and the Industrial bank to advance 3 million yen to those in cities.

in the higher direction of Indian industry. The problem will be to discover whether the undoubted merits of the German and other systems could not be followed in the financing of industry in this country, due allowance being made for the peculiarity of local conditions.

CHAPTER XV

THE EFFECT OF THE WAR ON INDIAN BANKING

THE war has been a first-rate professor of economics. It has taught with great efficiency invaluable lessons, and not the least of these is the value and the importance of really sound banking in the body politic. In this chapter we propose to elucidate some of the mysteries of the balance sheets of Indian banks, and at the same time to show how the banking system as a whole has been strengthened by the unparalleled trade prosperity of the last few years.

A little reflection will show that the best method is to put the balance sheets of individual banks into combined balance sheets, one for the Presidency banks and the thirteen major Indian Joint-Stock banks, the other for the Exchange banks. It was not possible to combine the Exchange banks' balance sheets with other Indian banks because these Exchange banks do business elsewhere than in India, and the capital for the purely Indian portion of the business cannot be separately distinguished. We shall after an examination of these balance sheets be in a position to see the enormous changes that have taken place since the war.

I. AGGREGATE BALANCE SHEET OF SIXTEEN PRINCIPAL BANKS IN INDIA, INCLUDING THE PRESIDENCY BANKS [1]

(In millions of £.)

December 31, 1913.

Capital and Reserves	7	Cash in hand, etc.	13
Deposits, etc.	41	Investments	7
Other liabilities	1	Bills discounted, etc.	28
		Other assets	1
	49		49

December 31, 1917.

Capital and Reserves	7	Cash in hand, etc.	28
Deposits, etc.	70	Investments	14
Other liabilities	1	Bills discounted, etc.	35
		Other assets	1
	78		78

II. AGGREGATE BALANCE SHEET OF FIVE EXCHANGE BANKS DOING A CONSIDERABLE PORTION OF THEIR BUSINESS IN INDIA

(In millions of £.)

December 31, 1913.

Capital and Reserves	7	Cash in hand, at banks, etc. (of which £3,000,000 in India)	11
Deposits and current accounts (of which £16,000,000 in India)	43	Investments, etc.	4
Acceptances, loans, etc.	11	Bills of exchange [2]	16
Other liabilities	2	Bills, discounts [3]	27
		Other assets	5
	63		63

December 31, 1917.

Capital and Reserves	8	Cash in hand, at banks, etc. (of which £12,000,000 in India)	28
Deposits and current accounts (of which £29,000,000 in India)	84	Investments	10
Acceptances, loans, etc.	8	Bills of exchange [2]	33
Other liabilities	3	Bills, discounts [3]	27
		Other assets	5
	103		103

[1] Rupee figures have been converted into £ at R. 15=£1.
[2] Bills of exchange (including Treasury bills and bills receivable).
[3] Bills discounted, loans, and advances.

By "capital" we mean the funds contributed or guaranteed by shareholders or proprietors. By "reserve" is meant the additional funds accumulated from the operations of the bank. The profit and loss account, which is usually undistributed profits, is included under liabilities because, like the capital and reserve, it is due from the banks to their shareholders. Acceptances, which are not common in India, so far as the Exchange banks are concerned, have not been shown separately. These mean that the banks have accepted bills for their customers which make them first-class paper and easily negotiable. The banks are liable to meet them on maturity. The banks' clients, however, are supposed to meet these, and have given in all probability satisfactory security to the bank that they will. This liability, therefore, of the customer to the bank is an asset to be set off against the acceptances. These acceptances are of a comparatively small importance, and the liability of the bank, as shown in dealing with the Grossbanken in the last chapter, is not quite the same liability as in the case of deposits. The big item is deposits, and just as capital, reserves, profit and loss may be regarded as due from the banks to their shareholders, the current and deposit accounts ("deposits") are due to the banks' customers. The deposits are of course not deposits in the sense that they have been paid over the counter. To a small extent this is true, but these are largely book credits given to customers by the banks. Deposits are, in short, potential currency in the hands of the public because the banks' customers are given the power of drawing cheques against these deposits. In other words, every loan by a bank to a customer increases banking deposits. We must not be astonished when it is said that the great increase in Indian deposits in recent years is evidence of indebtedness as well as of wealth. Deposits in India had in 1917 increased by 65 per cent as compared with the pre-war year. It is of interest to see how the exigencies of war finance have also produced a similar increase in other countries.

BANK DEPOSITS IN WAR AS COMPARED WITH THOSE OF 1913
(In £ millions sterling.)

	Pre-war. 1913.	War. 1917.	Percentage increase.
United States of America	2,101	4,081	94
United Kingdom . .	1,104	1,872	70
Germany	543	1,472	171
France	266	435 *	64
Canada	233	320	37
Australia	150	209	39
India	65	107	65
Japan.	185	416	125

Total increase, £4,265 millions or 92 per cent.
* Figures for 1918.

Our wary cool-headed bankers provide "currency" with ease and cheapness only when customers ask for advances. When these deposits are transferred to other banks in the payment of goods and services by the customer to his creditors, we see how it comes about that the loans of one bank are the deposits of other banks, and the bank's deposits consist largely of other banks' loans. A glance at the agglomeration of balance sheets above will show that the liabilities to the public, *i.e.* (*a*) to shareholders and (*b*) to customers, are set off by assets, chiefly loans by the banks to their customers. The cheque currency, as Hartley Withers points out, is thus based on mutual indebtedness between the banks and their customers. Cash, investments,[1] and the amount invested in the banks' premises are much less than the amount lent by the banks to their customers by discounting bills or by making advances or by loans at call and short notice. In fact, in the balance sheets above, nearly 85 and 62 per cent in 1913 and 1917 respectively of the amount due from the banks to their customers (deposits) are due from their customers to the bank, having been borrowed in the forms noted above. We thus come back to the old, old story that the deposits consist not so much of cash paid in but of credits borrowed.

Having thus removed the skeleton from the banking cupboard, we shall hastily run through the broad conclusions that may be drawn from the balance sheets above and from the banking tables appended to this volume. The first feature that strikes one is the smallness of Indian bank capital, and the relatively great amount of business handled with this small capital. A narrow margin of profit on the banks' turn-over enables them, especially the Presidency and Exchange banks, to pay good dividends. It is interesting to compare the capital and reserves of the banks in the pre-war year and at the end of 1917:

[1] Investments made by banks produce the same result on their deposits as loans advanced by them. Additions to investments lead to an increase in deposits. Since the outbreak of war these investments have greatly increased as the banks have bought Government securities to assist in the financing of the war.

[TABLE

CAPITAL AND RESERVES OF INDIAN BANKS [1]

	December 31 pre-war year.	1917.
	£ (millions).	£ (millions).
Presidency banks . .	5	5
Exchange banks * . .	7	8
Indian Joint-Stock banks	2	2
Total . . .	14	15

* The total capital and reserves of the Exchange banks have been taken into account as their Indian portion cannot be separately estimated.

The growth of banking credits has continued rapidly, especially during 1916 and 1917. The increase in deposits and current accounts [1] has been as follows since the war:

GROWTH IN DEPOSITS

31st December,	1914	Increase	£ 3	millions.
,,	1915	,,	£11	,,
,,	1916	,,	£17	,,
,,	1917	,,	£39	,,
Total			£70	,,

On 31st December, 1913, the deposits of these banks were £84,000,000, so there has been an increase of 83 per cent. On the other hand, the growth in assets between 31st December, 1913, and 31st December, 1917, has been distributed as follows: [1]

GROWTH IN ASSETS

	£ (millions).
Cash in hand	32
Investments	13
Advances, discounts, and short loans	24
Total	69

[1] In the analysis the figures for the Presidency banks, 5 Exchange banks (which do a considerable portion of their business in India), and 13 Indian Joint-Stock banks have been taken into account. In the case of Exchange banks the figures represent their whole business in and out of India.

It is important to see the comparative increase in deposits and current accounts by banks: [1]

DEPOSITS IN MILLIONS OF £

	1913.	1914.	1915.	1916.	1917.	1918.
Presidency banks	28	30	29	33	50	40
Exchange banks (in and out of India)	43	46	57	68	84	*
Indian Joint-Stock banks . .	13	11	12	14	20	*
Total . . .	84	87	98	115	154	

* Complete figures not yet available.

The most noticeable features in the war balance sheets are (1) the increases in the deposits on the liabilities side, and (2) the growth in the cash and investments among the assets. Deposits in the Presidency and Indian Joint-Stock banks increased by £29,000,000, or 71 per cent; cash by £15,000,000, or 115 per cent; and investments by £7,000,000, or 100 per cent. In the Exchange banks the increases in and out of India were 95, 155, and 150 per cent respectively. Some friendly critics reading these may say that here we have inflation with all its consequences. In the creating of credit there is an addition to buying power and so a rise of prices. In the first place the demand for India's exports of national importance was insistent, and this meant great prosperity to trade. Added to this was the part Government played. Government had to finance expenditure in India on behalf of the War Office in London as well as on its own behalf. It had to raise loans and obtain credits. The editor of the

[1] In the analysis the figures for the Presidency banks, 5 Exchange banks (which do a considerable portion of their business in India), and 13 Indian Joint-Stock banks have been taken into account.

Economist, one of the doughty opponents of inflation in the United Kingdom, wrote regarding the 80 per cent increase in bank deposits in the United Kingdom thus:

> Bank deposits are now generally recognised as having grown, not because we were somehow miraculously enriching ourselves while up to our chins in the costliest war that ever was waged, but because our credit machinery has responded with all its marvellous ease and elasticity to the requirements of war Governments which have been short-sighted enough to pay a large part of the war's cost by means of inflation and manufactured money. Not having courage enough to tax drastically or enough power of persuasion to induce investors to cover the war's cost by genuine saving and reduction of consumption, our Government have filled the gap by calling on the banks to provide new money, or buying power, by leading either directly to it or indirectly to customers. This Rake's Progress has gone forward with a considerable accelerando movement.

The large Indian war loans, the introduction of a large amount of floating debt in the form of Indian Treasury bills, the considerable expenditure on account of Government and of the Allies, not to mention the large sums left by Government with the Presidency banks to avoid any stringency, forced, as it were, the pace. When the banks bought War Loan or Treasury bills from Government they paid for the securities, and this reduced the banks' cash balances and increased their investments. Government used its increased balances to pay debts owing to firms, etc., and these paid the cheques into their bank accounts or in turn to their creditors. The banks thus got back their cash balances at the Presidency banks and at their own offices, while their deposits were increased by the cheques which were paid in by customers. Thus when everything is said and done, the banks, those great manufacturers of credit, found themselves with deposits increased by the amount of their subscriptions to the Government loans. Government and the banks by this credit operation increased the amount of currency, and if the increase in the volume of goods was not so rapid, then inflation followed. Hartley Withers sums up the position with characteristic lucidity thus:

> The banks are, among other things, manufacturers of currency, and as long as their manufacture does not outstrip the pace at which the goods are being produced, the general level of prices will remain fairly level. Or if new currency that they create is used by producers to set to work and make more goods, then by creating it they are helping the production of goods and so maintaining the equilibrium between goods and currency. It is when they manufacture currency that is handed straight over to a great consumer like a Government in war-time, that inflation can almost be seen getting to work. A new buyer comes into the market, with a great mass of currency to draw on, competing with all other buyers, and probably, from what we know of Government departments, with itself, and up go prices. It is a subtle, insidious, but very effective way of getting money out of us, not by taking it from us, but by watering down the value of all the money that we possess. As the prices of goods rise our buying power over them declines, and so we have to put up with less of them. . . . Inflation, however, does not only hit the poorest members of the community. It is bad finance for the Government that indulges in it to any extent that suffices to cause any serious rise in prices and depreciation in the currency. In the first place, the Government drives prices up against itself and so makes the war, or whatever else be the object of its spending, more costly. In the second, the Government . . . borrows at a time when the currency is

depreciated by its own action and engages to pay interest and pay the debt back in years hereafter, when we may fairly hope that prices will have gone back from their present level. . . . Unlike the quality of mercy which blesseth him that gives and him that takes, the system of financing by inflation curses both the inflator and the inflatee. "But," it is argued, "you cannot possibly get away from inflation in time of war. It is inevitable. The rise in prices makes a larger amount of currency necessary." But could there be a general rise in prices without an increase in the volume of currency? There could, of course, if there had been a decrease in the production of goods. But if the production of goods had remained fairly constant, as it probably did if we include war material as goods, and if there had been no increase in the volume of currency, then, I think, though certain prices must have risen, others must have fallen.[1]

Inflation, however, is not so evident in Indian as in English finance, thanks to the careful way in which our finances were nursed in the early years of the war. The cheques operating on this deposit currency have been dealt with in Chapter VII., where the growth of the circulating media and the growth of business is compared. The following table brings out the growth in deposits over a series of years:

[1] *Our Money and the State.* John Murray, London, 1917.

[TABLE

BANK DEPOSITS
(In millions of £.)

Year.	Presidency banks and branches.	Exchange banks (deposits in India only).*	Indian Joint-Stock banks.*	Total.
Thirty years ago (1888) .	7	3	1	11
Twenty years ago (1898)	9	6	5	20
Ten years ago (1908) .	21	13	11	45
1909	24	13	14	51
1910	24	16	17	57
1911	26	19	17	62
1912	27	20	18	65
1913	28	21	16	65
1914	30	20	12	62
1915	29	22	12	63
1916	33	25	17	75
1917	50	36	21	107
1918	40	41	†	†

* Figures refer to all banks reporting to the Department of Statistics.
† Complete figures not yet available.

The tremendous leap upwards in the cash balances in 1917 was the accretion to the resources of the Exchange banks. The large profits which have been made by most Indian industries on account of the war were reflected in the large increase in deposits. The net profits of jute mills, for example, after deducting income-tax, super-tax, and excess profits, was in 1918 £10,578,000, as against £823,000 in the pre-war year, 1914. The paid-up capital of these mills is £9,361,000, *i.e.* less by 12 per cent than the year's profits in 1918. There are other causes mainly peculiar to the Exchange banks, viz. the necessity of working with proportionately larger balances on account of the difficulty of obtaining remittances, and the general advantage of working in a world crisis with high balances in India to be on the safe side. In normal times, as the chairman of the Exchange banks said to us some days ago (July 1919):

"I could get R. 30 lakhs of Councils by cable whenever I wanted it. To-day I can't, in view of the difficulty of obtaining remittances and also in view of the delays in cables. I, therefore, work on higher balances." At the present time there are large sums in Calcutta that have not been sent to London, profits of companies, and part of this is lying in cash balances and part in Indian Treasury bills.

The percentage of cash to liabilities on deposits on 31st December of each year was as follows :

PERCENTAGE OF CASH BALANCES TO LIABILITIES ON DEPOSITS

	1913.*	1914.	1915.	1916.	1917.	1918.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Presidency banks	36	46	34	35	45	28
Exchange banks—						
(1) Banks doing a considerable portion of their business in India	19	28	19	25	40	20
(2) Banks which are merely agencies of large banking corporations doing business all over Asia . . .	17	26	41	35	160	†
Indian Joint-Stock banks—						
(1) Major banks having capital and reserve of R. 5 lakhs and over	18	21	22	24	25	†
(2) Minor banks having capital and reserve between R. 1 lakh and 5 lakhs . . .	16	22	22	17	21	†

* Pre-war year. † Complete figures not yet available.

The phenomenal increases in the cash balances in 1917 of the Exchange banks which do business mainly outside India and have only agencies in this country, are to be explained by large imports of gold for cotton which were imported between July and November 1917. The Yokohama Specie Bank's Indian deposits and those of the Hong-Kong and Shanghai Bank

Corporation, for example, were about eight times as high as those of the previous year. The gold was imported, it is understood, mainly to pay for cotton.

The effects of the war on banks' investments were most noticeable in the case of the Presidency and Exchange banks. The increase in the investments of the Presidency banks was 141 per cent, while those of the Exchange banks, which do a considerable portion of their business in India, was 137 per cent. The Indian Joint-Stock banks showed an increase of 53 per cent, as will be seen from the table below:

INVESTMENTS

(In millions of £.)

	1913.*	1914.	1915.	1916.	1917.	1918.
Presidency banks	5	6	8	8	11	8
Exchange banks doing a considerable portion of their business in India	4	7	10	9	10	†
Major Indian Joint-Stock banks .	2	2	2	3	3	†

* Pre-war year. † Complete figures not yet available.

The increase in investments is due in no small measure to the large subscriptions to Government loans of all kinds since the outbreak of the war.

Next as to discounts and advances. In view of what has already been said on deposits, the increase in discounts and advances is of special interest. The figures of the Exchange banks have, on account of the restrictions on the discounting of bills, not increased.

[TABLE

Discounts and Advances
(In millions of £.)

	1913.*	1914.	1915.	1916.	1917.
Presidency banks	18	15	15	18	21
Exchange banks doing a considerable portion of their business in India	27	22	24	28	27
Major Indian Joint-Stock banks .	10	9	9	10	14

* Pre-war year.

In the Appendix a table shows the dividends as compared with the pre-war year. In 11 cases out of 14, higher dividends have been declared in spite of the necessity of writing down investments and of strengthening reserves. The main feature of the table on bank rates is that money was tighter than in the pre-war year. The difference between the maximum and minimum was also less than in pre-war years. These Presidency bank rates are the rates charged for demand loans, *i.e.* the rates charged day by day by the Presidency banks for loans advanced on such security as Government paper. The Bank of England rate, on the other hand, is the official minimum rate at which the Bank of England will discount bills, and it is ordinarily higher than the fluctuating market rate of discount. It is in normal times ½ per cent less than the rate charged by the Bank of England for loans and advances. The rates of the three Presidency banks seldom differ by more than 1 per cent.

We shall conclude this chapter with a reference to the returns of cheques in 1917–18, as compared with the pre-war year. The data are set out in a table elsewhere. It is perhaps unnecessary to point out that cheques are merely the bank deposits in actual use, and the proportion of the cheques to deposits represents the rapidity of the circulation of these bank deposits. The cheques exchanged in these clearing houses, where the representatives of all the principal banks meet, are an indication of the transactions which result in the daily transfer of an enormous mass of credit. This is reduced to a matter of book entries between banks and between the various accounts in the same bank. The main fact is the very noticeable increase of 115 per cent over the pre-war year. The increase in the case of the Calcutta Clearing House was 123 per cent, and in that of Bombay 143 per cent. In 1918 the Calcutta clearings amounted to £496,000,000 (R. 744 crores) or 53 per cent of the total years' clearings, which was certainly a feather in the cap of that city. Bombay came next with £356,000,000 (R. 534 crores), or 38 per cent. These suggestive statistics, together with those referred to in the previous paragraphs of this chapter, prove, if proof were necessary, how wartime prosperity, so far as our banking activities were concerned, brought grist to the mill.

CHAPTER XVI

PROBLEMS OF INDIAN BANKING LEGISLATION

I

A Free or a Privileged Banking System

So far we have dealt with plain, positive, practical facts relating to Indian banks. We must now look a little ahead and see whether the problems that are likely to confront us in the near future could not be met by a carefully elaborated system of banking as has been introduced into several other countries. India will shortly, it seems, have to make up her mind whether a free or quasi-free banking system is to continue, or whether, all things considered, a privileged system, characterised by a great central bank under State control, and to some extent under State management, will not be preferable. The lessons of the bank failures of 1913 have impressed the necessity on men's minds of greater control by legislative enactment or by inspection. The failures have also shown how important it is to have a trained body of men. Sound banking in India depends not merely on good laws but also on good bankers. In England and Scotland, for example, young men at the age of seventeen or eighteen begin a long period of training in bank offices and, in addition to this practical side of the work, they pass examinations held by the Institute of Bankers, by similar bodies, or by the banks themselves. In India such a career is scarcely yet in existence. Our universities and colleges working in greater co-operation with banks could do more than they have done in the past. If banking is to develop in the way in which every business man expects, the need for bankers trained in this country on similar lines will be great. Without trained leaders the banking army will never win a victory, and we shall have to continue to depend almost entirely on that hard-working body of men who bring to the East the banking wisdom of the West. Another lesson of the failures of 1913 is that the advantages of banking legislation as typified in the Presidency Bank Act of 1876 were brought into relief. Indian Joint-Stock banking would have greatly gained in its early development had restrictions similar to those in the Act of 1876 and in the statute book of other countries been insisted on. Experience sometimes can be bought at too high a price, and as the old proverb has it—prevention is better than cure.

In addition to these local causes there have been world factors, the importance of which the war has emphasised. The imaginative Indian mind has watched with interest the history of the Commonwealth Bank of Australia. This State bank is owned wholly by the Government of Australia. It began business in 1912 with no capital and with assets of only £10,000 in the form of a loan from the Australian Government. Its last balance sheet, issued up to December 31, 1918, showed a total of over £70,000,000 as follows :

LIABILITIES.	£ (thousands)	ASSETS.	£ (thousands)
Deposits, accrued interest, and rebate	50,824	Coin, bullion, and cash balances	5,832
Bills payable and other liabilities	1,455	Australian notes	15,751
Savings bank deposits	16,125	Money at short call in London	12,215
Capital — Debentures issued	...	Investments	15,747
Reserve fund	767	Fixed deposits of other banks	1,089
Redemption fund	767	Bills receivable in London and remittances in transit	1,139
Outstanding credits, per contra	194	Bills discounted, loans and advances	17,858
		Bank premises	307
		Letters of credit, per contra	194
	70,132		70,132

This bank (not to be confused with the Bank of Australasia) had last year thirty branches in Australia and six offices in the United Kingdom. It has done more for the development of Australian industries than statistics could demonstrate, and so far from weakening the position of Australian banks its prosperity has proved to be a source of strength.

The development of banking in Canada has similarly been studied with profit, especially in regard to the numerous branch banks. Its weak point, as all critics on banking agree, is the lack of Government inspection. Monthly returns, however, of assets and liabilities according to a prescribed form are required to be made to Government, but there is nothing that corresponds to the system of bank examination in the United States. The minimum subscribed capital is $500,000, of which not less than $250,000 must be paid in before the commencement of business. There are also restrictions on loans. All bank charters expire at the end of each decade, so that an opportunity is afforded for their revision at regular intervals. Canadian bankers have also procured for their chartered association legal powers of supervision over note issues by banks. The banks have in this way the legal right to inspect each other so far as their note circulation is concerned, but in no other matter.

The renewal of the Charter of the Bank of France some time ago was of similar interest and importance. The Charter provided, among other things, for the opening in the next twelve years, of twelve new branches and twenty-five subsidiary branches, and also special offices in fifty provincial towns including cantons having more than 6000 inhabitants. The bank also undertakes to act as a clearing house for local bills and local paper issues, with the result that credit facilities will be made available in the most remote districts of France. In regard to this the *Times of India* wrote :

> The Presidency banks have not that monopoly of the note issue, which is exceedingly lucrative to the Bank of France. On the other hand, they have a monopoly of the custody of Government funds, which directly and indirectly is very valuable. The goal we have to set ourselves is to bring credit facilities in the most remote districts of India. As a first step in that direction we have to lay down a policy which will establish banking facilities in every district headquarters. That ought to be one of the duties thrown on the Presidency banks in return for the valuable privileges which they enjoy—privileges whose value is attested by the appearance of their balance-sheets. If it cannot be done through the Presidency banks, then the establish-

ment of a State Bank should be regarded as of the greatest urgency.[1]

The successful efforts at banking reconstruction in the United Kingdom, especially in connection with the establishing of the British Trade Corporation and the numerous and important bank amalgamations of the last few years, have further affected those who are bitten with a mania for banking reform in India.

Lastly, there is the pre-eminently successful experiment of the Federal Reserve Board and the twelve Federal Reserve banks which came into being on the passing of the Federal Reserve Act of December 23, 1913. The United States is perhaps the unique example of the establishment of a central banking system after banking had already reached an advanced stage of development in a country. The main object of the Federal Reserve Act was to give the banking system of the United States all the advantages of a central bank without the creation of a central bank. A more complicated system than a central bank with branches in most cities was introduced by the creation of twelve districts in each of which was a Federal Reserve bank which had power to open branches in its own district. There are, therefore, twelve central banks enjoying the advantages of local management, while the Federal Reserve Board, the central authority, supervises and imparts unity of control into the banking system. The United States experienced the same difficulties which India in a smaller degree experiences from time to time. Both are large in area—the area of India is, however, but half that of the States—and they both possess an independent treasury system. Until the

[1] *Times of India*, dated March 9, 1918.

passing of the Act of 1913 there was a great want of unity in the banking administration of the United States. The financial crisis of 1908 clearly showed that some scheme of keeping ample reserves of cash in all the banks' vaults or within easy reach had to be solved in addition to the question of adequate supervision. The Monetary Commission first aimed at a Central State bank, but, as in India with our Presidency banks, local jealousies were strong. The American Bankers' Association, in their answers to questions formulated by a sub-committee of the Banking and Currency Committee of the Senate, pointed out the following defects in the currency and banking system: (1) The absolute rigidity and lack of cohesiveness, there being no provision for co-operation among the banks. Under ordinary conditions this was not so much felt by the banks individually, but under strained financial conditions, when each bank was thrown on its own resources and had in self-protection to act independently of all the rest, the lack of a system under which all could co-operate through a common policy of action became keenly felt, and it was evident that what was really lacking was a system; (2) the use of so much of the legal reserve money of the country in actual circulation for ordinary business purposes was another waste; (3) the independent treasury system, under which Government acts as partial custodian of its own funds, resulted in irregular withdrawals of money from the bank reserves and from circulation, and materially interfered with the even tenor of general business; (4) there was no open market for commercial paper (issued for agricultural, industrial, and commercial purposes), available for investment by banks. (This hindered the development of the productive forces of the country); and (5) there was a lack of provision for the organisation of American banking institutions in foreign countries, institutions which are necessary for the development of foreign trade.

A scheme was devised by Congress which accomplished the good results of a central bank and yet avoided the criticism that such a bank would, especially among the democrats, inevitably produce. The war has conclusively proved that the great aim of the Act has been achieved, *i.e.* all member banks have ample supplies of cash at all times. There is first of all a Federal Reserve Board of seven members. There is also the Federal Advisory Council composed of one representative from each of the Reserve banks. This Council may act only in an advisory capacity to the Federal Reserve Board. The Federal Reserve banks are twelve in number, the whole of the United States being divided into twelve banking districts or areas. Every national bank must become a stockholder to the extent of 6 per cent of its capital and reserves (50 per cent of the subscribed capital to be paid in) of the Federal Reserve bank in the district in which it is situated. State banks and trust companies may also become member banks under certain conditions (7670 National banks and 195 State banks are members). The Federal Reserve banks are required to keep minimum reserves of 35 per cent of their deposits. Member banks have to keep reserves of 18 per cent, 15 per cent, and 12 per cent respectively, according as they are located in large cities, smaller cities, or rural districts. The Federal Reserve Board is authorised to suspend temporarily any of these reserve requirements, and to impose a graduated tax upon the amounts by which the reserves fall below the stated minimum. The Federal Reserve banks, except for open market purchases, do no banking business with the public but only with their member banks. These Federal Reserve banks may issue Federal Reserve notes against gold or commercial paper. Additional currency can thus be obtained when trade requires it by the discount of bills of exchange, and these being of short date, their payment when due would of necessity cause a contraction in the notes issued against them. The total issue, as we shall see, is limited in proportion to the amount of the gold reserve.

"In this system," said the late Sir Edward Holden, "the currency in circulation is not increased unless there has been a previous increase in the volume of goods produced, as the Bills of Exchange which are discounted for currency must be commercial bills representing goods. Hence there is no similar effect upon prices consequent on an increase in currency obtained in this way as would be the case when notes are issued against securities not representing goods, such as Treasury Bills. . . . The experience of most State banks is that commercial Bills of Exchange are the best security on which to issue currency after gold, and it has been on this basis that the Americans have worked and have built up their Federal Reserve banks."

The following table illustrates the remarkable development in the twelve Reserve banks:

[TABLE

CONSOLIDATED BALANCE SHEET OF THE TWELVE FEDERAL RESERVE BANKS

(In thousands of £ sterling.)

	December 1914.	December 1917.	December 1918.
Capital	3,610	13,810	16,117
Reserve	..	..	277
Notes issued	3,205	222,107	532,740
Deposits	51,204	294,472	309,900
Other liabilities	..	2,598	33,227
Total liabilities	58,019	532,987	892,261
Gold	48,264	326,272	415,798
Legal tenders	5,315	10,390	10,927
Total cash	53,579	336,662	426,725
Bills	2,119	175,517	389,413
Investments	51	20,108	70,788
Other assets	2,270	700	5,335
Total assets	58,019	532,987	892,261

Senator Robert L. Owen, Chairman of the United States Senate Committee on Banking and Currency and chief sponsor of the Federal Reserve Act, said some time ago:

The central idea of the system is elastic currency issued against commercial paper and gold, expanding and contracting according to the needs of commerce. . . . The soul of the Reserve System is elastic currency issued by Government, under Government control, expanding and contracting as the nation's commerce may require. Under the Reserve System a financial panic is impossible. People will not hoard currency nor hold gold when they know that they can get currency or get gold when required. This was an important object of those who prepared the Reserve Act. America no longer believes a financial panic possible, and therefore the business men, being perfectly assured as to the stability of credits, do not hesitate to enter manufacturing and commercial enterprises from which they would be deterred under old conditions of unstable credit. The system has expanded the use of acceptances and of cheques and drafts, has stimulated industry, provided enlarged employment of labour, increased output, and greatly enhanced the financial prestige of American banks.

The Federal Reserve Board has specially excluded notes, drafts, and bills drawn for stock speculation from the paper eligible for discount. Under the amendments of June 1917, when a Federal Reserve bank deposits with the Federal Reserve agent gold or gold certificates as collateral for reserve notes in addition to approved commercial paper, the gold so deposited is included as part of the 40 per cent minimum gold reserve which the bank is required to maintain against notes actually in circulation. Recently the Federal Reserve Board has carefully defined the type of paper which is eligible for discount. Bills of exchange issued "for the purpose of carrying or trading in stocks, bonds, or other investment securities, except bonds and notes of the United States," are not eligible for rediscount. This prevents the Federal Reserve banks financing speculation, and limits rediscounts to self-liquidating paper. A gold reserve of 40 per cent of their notes in circulation, 5 per cent of which is kept with the United States Treasury in Washington for redeeming the notes, must be held by the Reserve banks. The Federal Reserve Board may suspend this under penalty of a heavy tax. The notes are redeemable in gold only at Washington, and they are obligations of the United States Government itself. The notes are issued through the Federal Reserve agent in each of the Federal Reserve banks. He is a Government official, and is the custodian of the gold reserve and of the discounted bills held against the notes in circulation. The Reserve banks' gold reserves must be 35 per cent of their total deposits from the member banks *plus* 40 per cent of the total of their currency notes in circulation. The funds of the United States Government may be deposited in the Federal Reserve banks without collateral security, to be drawn out by cheques for public disbursements. The Secretary of the Treasury is permitted under the Act to use member banks as depositories, or to keep his funds in his own vaults.

In short the Federal Reserve Act provided for the creation of Federal Reserve banks, twelve in number, which were superimposed over the National and State banks and trust companies. Membership was imperative for National banks but not so for other banks. Over these Reserve banks is the Federal Reserve Board which controls the whole system. This Federal Reserve Board is composed of the Secretary of the Treasury (*ex-officio* chairman), the Comptroller of the Currency (*ex-officio*), and five members appointed by the President with consent of the Senate for ten years, two to be experienced in banking and finance. All give their entire time to the Board and receive as an annual salary $12,000 each. No member of the Board can be an officer, director, or stockholder of any bank or trust company, nor a member of Congress. Members and assistant secretaries of the Treasury cannot be employed in any member bank while in office nor for two years thereafter. The Federal Reserve Board has very extensive powers. It supervises the Reserve banks, regulates the issue of notes, defines the character of bills eligible for discount, rediscount, etc. Every half year it levies upon the Reserve banks assessments to meet the estimated expenses of the Board. The Federal Reserve banks have each a directorate of nine—3 in class A, elected by member banks representing banks, 3 in class B, elected by member banks representing business interests of the Federal Reserve district in which the bank is located, and 3 in class C, appointed by the Federal Reserve Board, one a person of banking experience, to be chairman and designated as "Federal Reserve Agent." Directors, officers, employees or stockholders of any bank are not eligible. No member of Congress can be an officer or director. The capital must not be less than $4,000,000. Shares $100 par value, tax exempt, are subscribed for by member banks in the district, and under certain conditions by the United States Treasury and by the general public. Six per cent of earnings goes as cumulative dividend. Of the remainder one half to surplus (reserve) up to 40 per cent of paid-up capital. After this all earnings go to the United States Government as a franchise tax, to be applied either to the gold reserve, or to the retirement of outstanding United States bonds.

II

Indian Banking Legislation of the Future

With this somewhat portentous proem we now proceed to review in the modest space of a few pages the main problems of banking legislation which the remarkable happenings of recent years have brought plainly to a head. There are certainly spots of considerable weakness in our banking armour. We do not refer to the Presidency banks which have had the great good fortune of being restricted in their business by legislative enactment. Sir William Muir, the Finance Member of 1876, showed how the advantages of Scotch banking, *e.g.* in regard to cash credits, etc., could with safety be continued in the new Act. As a Scotsman he was essentially cautious, and every line of the restrictive portions of the Act shows the wisdom of this policy. Unfortunately, this banking legislation has two faults. In the first place, it is over forty years old, and in the second place it is restricted to the three Presidency banks. It would be to the advantage of Indian Joint-Stock banks if the safeguards of sound banking were adopted, *e.g.* (1) the restriction of the term "bank" to banks proper; (2) the advantage of having, as in the Canadian system, a minimum paid-up capital before the bank opens its doors to do business; and (3) restrictions by law in the granting of loans and discounting paper. Legislation seems also required in connection with the investments of banks. Some banks invest too largely in real estate, and even in unsound securities. If a run took place these could not be quickly realised, and if realisable, only at a very considerable loss. This might, it is true, be remedied by the statutory regulation of the cash balances, but this is an exceedingly difficult question, since different localities work under different conditions. A percentage fixed for all banks alike might afford no real protection, since it might be too low, or on the other hand so high as to interfere seriously with the accommodation which the banks give to their customers. The failures of 1913 also showed the necessity of limiting the amount of the paper of any one man which a bank should be permitted to discount, the limitation in the number of shares of the bank and advances which may be made to any single person. We have already referred to the demand for trained men. Just as trained teachers are of the first importance to Indian education at the present time, so are trained officers in sufficient numbers to Indian banking. There is, too, the advantage of public inspection. It would be well to take a leaf out of American banking legislation and to arrange for monthly or quarterly reports to the Controller of Currency or a similar officer with the Government of India. The Federal Reserve Act provided that the Reserve Board shall examine Federal Reserve Banks and member banks. The Comptroller of the Currency at Washington, with the approval of the Secretary of the Treasury, must appoint examiners to examine each National bank at least twice in each year. The State banks must be subject to examination by the Federal Reserve Board, and when admitted to membership must make reports to the Federal Reserve Bank of their condition and of payments of dividends not less than once a quarter. Publicity is not merely a precaution against unsound banking, but it is helpful to the banks, as it obtains public confidence. The Presidency banks publish a statement weekly. Most of the other banks also furnish annually to the Department of Statistics a return,[1] but there is no monthly or quarterly return prescribed by law. The Bank of England, the Bank of France, and the Reichsbank publish weekly reports. Special inspection is sometimes rendered unnecessary

[1] These returns are consolidated and published in the Department of Statistics' Annual Banking Blue Book (Superintendent, Government Printing, Calcutta).

as in the Bank of France, where the Ministry appoint the governor and the two sub-governors. It would be well if banks in India were compelled to return to Government and to publish monthly a balance sheet somewhat in the following form. The items are tentative, but they elucidate most of the mysteries that require to be known.

PROPOSED MONTHLY STATEMENT TO BE PUBLISHED BY BANKS IN INDIA

Liabilities.

		R. A. P.
Capital—		
Authorised .	R.	
Subscribed .	R.	
Paid up . .	R.	
Reserve		
Current deposit and other accounts		
Acceptances on behalf of customers		
Guarantees, endorsement, and other obligations . . .		
		R.

Assets.

		R. A. P
Cash—		
1. In hand .	R.	
2. With Presidency banks	R.	
Bullion		
Loans at call and short notice		
Investments—		
1. Securities of, or guaranteed by, the Government of India .	R.	
2. Securities of the British and Colonial Governments	R.	
3. Other investments .	R.	
Bills discounted—		
1. Foreign bills of exchange	R.	
2. Inland bills (hundis, cheques, etc.)	R.	
Loans and advances		
Bank premises		
Other assets		
Liabilities of customers for acceptances as *per contra* . .		
Liabilities of customers for guarantees, endorsements, and other obligations as *per contra*		
		R.

The wholesome advantages of more light as a partial cure for our banking maladies are self-evident. The banks themselves would see that there was a "sweet reasonableness" in this, as it would be to their own interests.

The next question is, Shall we have a free banking system or a privileged system? At present we have, strictly speaking, neither the one nor the other. The latter of these two systems is almost universal in the great countries of the world, and at present the tendency is all in favour of its complete establishment in those countries where, as in India, there is only a very partial application of the system. The main advantages to India of the privileged system are the advantages which would accrue from a strong central control either in the nature of a Federal Reserve Board superimposed over the three Presidency banks, or in a State Central Bank formed from an amalgamation of the Presidency banks. Such an institution, be it a Board or Central State Bank, would be of invaluable assistance to Government, and it would also relieve Government of some of its regular financial duties, duties which in other countries are ordinarily undertaken by a central institution. Under the Federal Reserve Act the difficulty of combining Government control and private management was overcome. Purely banking questions, such as the granting of loans, were entrusted to boards of directors of the Federal Reserve banks, while supervision and control were left to the Federal Reserve Board appointed by the President of the United States. The Government of India would gain in having their financial and banking work done by a board or institution, the members of which would include professional bankers. Work done by bankers would not be subjected to perpetual and carping criticism as is that of a close bureaucratic corporation. In dealing with the pros and cons, Sir James Meston said : " It would relieve the officers of Government, who very often have neither the training nor experience necessary for this sort of work, of obligations and responsibilities for which they themselves must recognise that they are not fully equipped." Government would probably hand over the Treasury balances, or the greater part of these, since there may be out-of-the-way treasuries where the Bank would not care at first to open branches. The note issue, including the paper currency, the buying of silver, coinage, the exchange and banking work in London, would probably be among the duties assigned by Government. The Gold Standard Reserve would not be handed over, since that reserve is for the maintenance of exchange and should be under the lock and key of the Secretary of State and the Government of India. The proposed central institution—whether a board or a bank—would advise and perhaps even assist Government in their management of it. The mercantile community would prefer a central institution to do the financial and banking work rather than a Government department, in the same way that the masterly bankers of the Bank of England or the Bank of France are never questioned as to what they do, so great is the confidence of the general public in the banker. An institution with branches up and down the country-side would put an end to the appalling dissipation of resources that at present exists. Coin instead of remaining idle would be put to productive uses. It would be possible to economise the use of the precious metals. A complete control over discounts as has been successfully achieved under the American system (which even with the Reserve Board is not quite a type of privileged banking system) would be feasible. Greater economies and better management would result throughout the banking system. The bank capital of the country would be distributed according to the relative needs of different localities, and thus waste would be avoided. Such a central institution, too, is more apt to attract talent and to train up an efficient service than is a small local institution or group of institutions. In favour of the *status quo* we are told there are difficulties which cannot lightly be brushed aside. There are the alleged provincial jealousies and banking rivalries. The difficulty of finding in India a directorate sufficiently competent, and the danger of a sharp conflict of views between the Head Office in India and the London branch, have been put forward. It is also said that the present system has promoted the development of banking to the degree required by commerce and industry, and independent banks, familiar with local requirements, have felt the pulse of local needs more accurately than the branches of an institution with its head office elsewhere. Of these arguments the only one of importance is the question of inter-provincial jealousies and banking rivalries, and, as we have noted elsewhere, this aspect is at the present time not incapable of solution. More than this cannot at present be said. We have, too, shown how the Americans surmounted this difficulty by the Federal Reserve legislation of December 1913.

In a previous chapter we have referred to the Resolution for an inquiry into banking that was brought forward in the Legislative Council in Delhi in March

1919. If—it is perhaps in the opinion of some a large "if"—it is decided ultimately to hold an inquiry, the terms of reference might be somewhat on the following lines: "to inquire into the changes that are necessary or desirable in the banking system of India or in the law relating to banks with a view to the improvement of banking facilities and the encouragement of sound banking in the country; to consider especially the question of a more effective supervision of banking by the establishment of a central bank or otherwise; and to make recommendations." It would be necessary to undertake, in as thorough and scientific a manner as possible, the investigation of banking conditions in India, and perhaps also in the United States (under the Federal Reserve Act) and in London. The examination of expert witnesses would be necessary. Papers and monographs would have to be prepared by expert authorities in one or two instances, and statistical information would have to be collected by Government from the banks. If a Commission were ever appointed, it would probably be the strongest that ever set foot in India, since men of light and leading in the banking world, such as the late Sir Edward Holden of the London Joint City and Midland Bank, and Senator Robert L. Owen, one of the pillars of American financial statesmanship, would be indispensable. We are sometimes apt to forget that it is largely by a sound system of banking that a country can achieve real financial independence and real financial power.

TABLES

CONTENTS

TABLE 1.—EXPORTS AND IMPORTS OF MERCHANDISE AND TREASURE (PRIVATE AND GOVERNMENT)

(In thousands of £ sterling.)

	Merchandise.			Treasure.			Total of Merchandise and Treasure.	Gold.		
	Imports.	Exports.	Total.	Imports.	Exports.	Net Imports.		Imports.	Exports.	Net Imports.
Quinquennial average—										
1864–65 to 1868–69	29,898	54,703	84,601	17,278	1,760	15,518	103,639	6,038	314	5,724
1869–70 to 1873–74	30,084	51,639	81,723	7,718	1,433	6,285	90,874	3,107	179	2,928
1874–75 to 1878–79	33,530	52,810	86,340	8,608	2,433	6,175	97,381	1,482	888	594
1879–80 to 1883–84	41,294	64,798	106,092	9,594	1,094	8,500	116,780	3,477	83	3,394
1884–85 to 1888–89	45,125	65,135	110,260	10,052	1,207	8,845	121,519	2,537	239	2,298
1889–90 to 1893–94	47,726	70,752	118,478	11,967	2,411	9,556	132,856	2,936	1,374	1,562
1894–95 to 1898–99	43,538	64,707	108,245	9,128	3,871	5,257	121,244	3,404	1,894	1,510
1899–1900 to 1903–4	56,452	83,281	139,733	17,341	7,767	9,574	164,841	8,666	4,544	4,122
In the year 1904–5	69,607	105,147	174,754	26,340	11,027	15,313	212,121	14,540	8,073	6,467
„ 1905–6	74,740	107,893	182,633	21,100	10,313	10,787	214,046	9,834	9,527	307
„ 1906–7	78,193	118,020	196,213	29,720	3,813	25,907	229,746	12,353	2,453	9,900
„ 1907–8	91,098	118,323	209,421	28,189	3,632	24,557	241,242	13,835	2,257	11,578
„ 1908–9	85,858	102,095	187,953	15,163	4,213	10,950	207,329	5,603	2,699	2,904
Quinquennial average—										
1904–5 to 1908–9	79,899	110,296	190,195	24,102	6,599	17,503	220,896	11,233	5,002	6,231
In the year 1909–10	81,767	125,312	207,079	25,015	4,266	20,749	236,360	16,687	2,234	14,453
„ 1910–11	89,137	139,974	229,111	26,491	4,751	21,740	260,353	18,595	2,609	15,986
„ 1911–12	96,037	151,993	248,030	35,647	6,916	28,731	290,593	27,662	2,489	25,173
„ 1912–13	111,086	164,146	275,232	41,221	7,088	34,133	323,541	27,527	4,860	22,667
„ 1913–14	127,538	166,005	293,543	28,960	4,721	24,239	327,224	18,818	3,268	15,550
Quinquennial average—										
1909–10 to 1913–14	101,113	149,487	250,600	31,467	5,548	25,919	287,915	21,858	3,092	18,766
In the year 1914–15	96,621	121,451	218,072	14,539	3,525	11,014	236,136	7,136	2,037	5,099
„ 1915–16	92,113	132,987	225,100	7,964	5,484	2,480	238,548	3,521	4,261	-740
„ 1916–17	106,833	164,874	271,707	25,635	4,278	21,357	301,620	8,892	68	8,824
„ 1917–18	109,570	163,263	272,833	34,509	5,029	29,480	312,371	19,396	2,611	16,785
„ 1918–19	125,708	170,195	295,903	47,577	6,007	41,570	349,487	1,517	5,226	-3,709
Quinquennial average—										
1914–15 to 1918–19	106,169	150,554	256,723	26,045	4,864	21,180	287,632	8,092	2,840	5,252

TABLE 2.—THE BALANCE OF TRADE IN INDIA
(In thousands of £ sterling.)

	Average of 5 Years ending											
	1883-84.	1888-89.	1893-94.	1898-99.	1903-04.	1908-09.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.	1918-19.
1. Exports of merchandise (excluding Government Stores)	52,680	59,053	69,940	71,633	83,013	110,206	149,411	121,061	131,587	163,434	161,703	169,242
2. Imports of merchandise (excluding Government Stores)	31,966	39,014	45,167	46,527	52,286	74,567	97,232	91,953	87,991	99,757	100,283	112,689
3. Net exports	20,714	20,039	24,773	25,106	30,727	35,639	52,179	29,108	43,596	63,677	61,420	56,553
4. Imports of treasure and funds (private account)	20,007	20,492	24,413	23,953	29,341	36,827	52,464	11,266	26,443	33,282	49,830	15,651
Net imports of—												
Gold	2,753	2,053	1,400	1,500	6,367	8,589	19,242	5,637	3,267*	2,797*	14,306*	15*
Silver	4,167	5,973	8,140	4,167	3,413	5,405	4,806	6,676	3,717	−1,440†	971†	38†
Net imports of treasure	6,920	8,026	9,540	5,667	9,780	13,994	24,048	12,313	6,984	1,357	15,277	53
Enfaced rupee paper (net imports)	..	..	..	353	587	360	581	238	603	347	552	..
Enfaced rupee paper (net exports)	660	114	327	..	..	..	..	..	..	..	..	464
Interest on— Enfaced rupee paper	567	580	660	553	467	373	297	228	213	195	185	173
Council drafts paid in India through—												
Treasury	13,180	12,000	14,540	17,380	17,627	22,207	24,294	6,594	4,980	8,094	23,781	6,263
Gold Standard Reserve	..	..	..	..	880	1,233	2,168	600	7,533	4,295	1,377	..
Currency	..	..	..	..	..	267	1,107	..	8,190	18,994	8,658	14,346
Funds supplied by the Government to finance wheat purchases	..	..	..	..	..	..	..	..	2,833	..	..	..
Reverse drafts paid in London	..	..	..	..	..	*1,607*	*31*	*8,707*	*4,893*	..	..	*4,720*
Net	13,180	12,000	14,540	17,380	18,507	22,100	27,538	−1,513	18,643	31,383	33,816	15,889
Balance of trade in favour of India	707	..	360	1,153	1,386	..	..	17,842	17,153	30,395	11.590	40,902
Balance of trade against India	..	453	..	..	..	1,188	285	..	..	..	..	..

NOTE.—(1) All possible items in the Balance of Trade cannot be included in the table for reasons given in Chapter I.
(2) The conversion rate R. 15=£ has been retained as section 11 of the Indian Coinage Act of 1906 (Act III. of 1906) is still in force.

* Excludes transactions, such as gold imported or exported on behalf of the Bank of England, which do not enter into India's Balance of Trade.

† Excludes *piastres* coined at the Bombay Mint on behalf of the Egyptian Government valued at £773,000 in 1916–17, £515,000 in 1917–18, and £39,000 in 1918–19. The value of old Straits dollars received at the Bombay Mint for recoinage (£756,000) and of the export of the recoined dollars (£77,000) have also been excluded in 1918–19.

TABLE 3.—THE GROWTH OF BUSINESS IN INDIA

Year commencing April 1.	Value of imports and exports of merchandise and treasure. (Private.)		Tonnage of vessels entered and cleared with cargo. (Foreign shipping.)		Value of coasting trade.		Tonnage of coasting shipping entered and cleared with cargo.		Inland trade (imports and exports).	
	1.		2.		3.		4.		5.	
	Rs. (crores).	Index number.	Tons (thousands).	Index number.	Rs. (crores).	Index number.	Tons (thousands).	Index number.	Cwt. (millions).	Index number.
1890 . .	193	98	6,635	96	66	98	19,899	93	414	92
1891 . .	192	97	7,153	104	68	101	20,901	98	464	103
1892 . .	193	98	6,593	96	66	98	21,433	100	435	96
1893 . .	203	104	6,763	98	68	101	22,483	105	457	101
1894 . .	197	100	7,215	105	70	104	22,378	104	490	108
1895 . .	201	102	7,200	104	75	111	23,133	108	504	112
1896 . .	194	99	6,712	97	68	101	22,138	103	493	109
1897 . .	194	99	6,706	97	76	112	21,009	98	535	118
1898 . .	206	105	7,709	112	69	102	22,308	104	585	129
1899 . .	209	107	7,438	108	81	120	21,208	99	660	146
1900 . .	208	106	7,072	103	84	124	20,825	97	646	143
1901 . .	234	119	8,350	121	79	118	22,722	106	680	150
1902 . .	242	123	9,360	136	73	108	23,646	110	634	140
1903 . .	278	142	10,670	155	72	107	25,792	120	705	156
1904 . .	295	151	11,492	166	79	117	27,659	129	858	190
1905 . .	292	149	10,573	153	84	125	29,613	138	889	197
1906 . .	318	162	11,801	171	96	143	30,640	143	947	210
1907 . .	346	177	12,388	179	109	161	31,920	149	1,000	221
1908 . .	303	155	11,594	168	107	158	32,720	153	935	207
1909 . .	349	178	12,491	181	107	158	32,872	154	1,007	223
1910 . .	386	197	12,755	185	105	155	32,085	150	1,070	237
1911 . .	430	219	13,847	200	104	153	31,180	146	1,165	258
1912 . .	465	237	14,663	213	115	170	32,131	150	1,376	304
1913 . .	476	243	15,037	217	120	177	31,499	147	1,350	299
1914 . .	345	176	11,044	159	111	165	23,822	111	1,267	280
1915 . .	349	178	10,175	147	110	162	18,960	89	1,298	287
1916 . .	415	212	9,940	144	114	168	16,032	75	1,352	299
1917 . .	424	216	8,908	129	121	177	12,595	59	1,346	298
1918 . .	427	218	8,840	128	157	233	14,246	67	1,373 *	304

* Provisional estimates subject to revision.

NOTE.—The base of the index number is the average for the five years 1890–94, excepting in one or two cases where figures for the first year (1890) or first few years are not available, in which cases the average for the first five years for which figures are available is taken as the base.

(*Continued on next page.*)

TABLE 3 (*continued*).—THE GROWTH OF BUSINESS IN INDIA

Year commencing April 1.	Passengers carried by railways (unit mileage of passengers). 6.		Freight carried by railways (goods). 7.		Gross earnings of railways. 8.		Value of money orders paid in each year. 9.		Paid-up capital of Joint-Stock companies registered in India. 10.		Receipts and disbursements of Govt. of India in India and in England (excluding remittances). 11.	
	Unit Miles (crores).	Index number.	Ton miles (crores.)	Index number.	Rs. (crores).	Index number.	Rs. (crores).	Index number.	Rs. (crores).	Index number.	£ (millions).	Index number.
1890 . .	479	89	351	82	21	91	16	90	24	93	264	98
1891 . .	523	98	444	103	24	104	17	94	26	101	256	95
1892 . .	526	98	423	99	23	100	18	99	26	101	269	100
1893 . .	560	105	443	103	24	104	19	105	27	102	284	106
1894 . .	589	110	486	113	25	108	20	112	27	103	271	101
1895 . .	618	116	494	115	26	113	21	118	29	110	267	99
1896 . .	644	120	459	107	25	108	23	127	30	116	286	106
1897 . .	592	111	480	112	26	113	25	141	32	123	307	114
1898 . .	583	109	571	133	27	117	26	143	35	132	212	79
1899 . .	619	116	616	144	29	126	27	150	34	132	216	80
1900 . .	707	132	665	155	32	139	28	155	36	138	261	97
1901 . .	787	147	707	165	34	148	28	158	37	142	243	90
1902 . .	787	147	718	167	34	148	30	164	38	145	250	93
1903 . .	839	157	763	178	36	156	31	174	39	147	239	89
1904 . .	901	168	897	208	40	174	33	184	40	154	240	89
1905 . .	990	185	904	211	42	182	35	196	42	159	285	106
1906 . .	1,069	200	977	228	44	191	38	210	44	168	259	96
1907 . .	1,184	221	1,084	252	47	204	41	226	50	193	272	101
1908 . .	1,210	226	993	231	45	196	42	232	57	217	302	112
1909 . .	1,236	231	934	218	47	204	43	237	61	234	293	109
1910 . .	1,343	251	1,209	282	51	222	45	249	64	244	313	116
1911 . .	1,437	268	1,336	311	55	239	48	264	69	265	312	116
1912 . .	1,532	286	1,563	364	62	270	51	285	72	275	330	123
1913 . .	1,661	310	1,562	364	64	278	55	307	76	292	325	121
1914 . .	1,602	299	1,523	355	60	261	55	306	80	308	357	133
1915 . .	1,653	309	1,716	400	65	283	57	319	85	324	356	132
1916 . .	1,785	333	1,983	462	71	309	61	342	90	346	503	187
1917 . .	1,620	303	2,101	489	77	335	73	409	99	380	863	321
1918 . .	2,113 *	396	2,234 *	521	85	370	80 *	448	107 *	412	1,056 *	392

* Provisional estimates subject to revision.

NOTE.—The base of the index number is the average for the five years 1890–94, excepting in one or two cases where figures for the first year (1890) or first few years are not available, in which cases the average for the first five years for which figures are available is taken as the base.

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TABLE 3 (*continued*).—THE GROWTH OF BUSINESS IN INDIA

Year.	Jute, manufactured. 12. Exports of gunny bags by sea to foreign countries. (millions).	Index number.	Exports of gunny cloths and canvas. Yards (millions).	Index number.	Average index number.	Production of jute, raw. 13. Bales (lakhs).	Index number.	Production of cotton, raw. 14. Bales (lakhs).	Index number.	Production of cotton manufactured in India (yarn and woven goods). 15. Lbs. (millions).	Index number.	Production of rice. 16. T'ns(thousands).	Index number.
1890 . .	99	82	30	55	68	(*a*)	..	(*a*)	..	(*a*)	..	(*a*)	..
1891 . .	106	88	37	68	78	30	59	17	75	(*a*)	..	15,740	75
1892 . .	124	102	40	74	88	57	113	22	97	(*a*)	..	21,014	100
1893 . .	131	108	61	113	110	50	99	25	110	(*a*)	..	22,956	109
1894 . .	143	118	103	190	154	61	121	22	97	(*a*)	..	24,895	118
1895 . .	168	139	114	211	175	56	111	27	119	432	79	20,768	99
1896 . .	166	137	169	313	225	57	113	23	102	506	93	13,784	65
1897 . .	198	163	243	450	306	68	135	25	110	554	102	24,918	118
1898 . .	181	149	280	518	333	53	105	30	133	614	113	25,282	120
1899 . .	168	139	307	568	354	54	107	11	49	612	112	22,578	107
1900 . .	203	168	365	675	422	65	129	30	133	452	83	20,675	98
1901 . .	230	190	419	775	482	74	147	27	119	693	127	19,215	91
1902 . .	225	186	493	912	549	66	130	34	150	698	128	23,474	111
1903 . .	206	170	552	1,022	596	72	143	32	141	717	132	21,964	104
1904 . .	201	166	576	1,066	616	74	146	38	168	737	135	22,423	106
1905 . .	233	192	659	1,219	706	81	160	34	150	845	155	21,657	103
1906 . .	258	213	696	1,289	751	92	181	49	217	819	150	21,387	101
1907 . .	293	242	790	1,461	852	98	193	31	137	827	152	19,017	90
1908 . .	301	249	770	1,425	837	63	125	37	164	850	156	20,939	100
1909 . .	364	301	940	1,739	1,020	72	142	48	212	856	157	28,513	135
1910 . .	361	298	955	1,767	1,033	79	156	39	172	856	157	28,818	137
1911 . .	290	239	871	1,611	925	82	162	33	146	892	164	28,166	134
1912 . .	312	258	1,022	1,891	1,075	98	193	46	203	974	179	28,485	135
1913 . .	369	305	1,061	1,963	1,134	89	175	51	225	957	176	28,790	137
1914 . .	398	329	1,057	1,955	1,142	104	206	52	230	929	171	27,242	129
1915 . .	794	656	1,192	2,205	1,430	73	145	37	164	1,075	198	32,831	155
1916 . .	805	665	1,231	2,278	1,470	83	164	45	199	1,059	194	34,791	165
1917 . .	758	626	1,197	2,214	1,420	89	175	40	177	1,042	191	36,249	172
1918 . .	583	483	1,103	2,041	1,262	69	136	37	164	965	178	23,672	112

(*a*) Figures not available.

(*Continued on next page.*)

TABLE 3 (*continued*).—THE GROWTH OF BUSINESS IN INDIA

Year.	Production of wheat.		Production of tea.		Production of oilseeds (linseed, sesamum and rape and mustard)		Production of coal.		Production of iron ore.		Production of petroleum.		Growth of business index number (excluding iron and petroleum).	Index number showing growth of business.
	17.		18.		19.		20.		21.		22.		23.	24.
	Tons (thousands).	Index number.	Lbs. (millions).	Index number.	Tons (thousands).	Index number.	Tons (thousands).	Index number.	Tons (thousands).	Index number.	Gallons (millions).	Index number.		
1890 .	(a)	..	(a)	..	(a)	..	2,169	87	(b)	..	(b)	..	90	85
1891 .	6,094	91	124	94	1,214	79	2,329	94	(b)	..	(b)	..	92	91
1892 .	7,649	115	122	93	1,854	121	2,538	102	(b)	..	(b)	..	101	101
1893 .	7,269	109	132	100	1,684	110	2,562	103	(b)	..	(b)	..	104	105
1894 .	6,999	105	135	103	1,380	90	2,824	114	(b)	..	(b)	..	109	110
1895 .	5,380	81	143	109	1,528	100	3,540	143	47	108	13	64	111	109
1896 .	5,363	80	156	119	1,299	85	3,864	156	14	32	15	73	112	107
1897 .	7,208	108	154	117	1,980	129	4,066	163	44	101	19	93	126	124
1898 .	6,838	103	157	120	1,824	119	4,608	185	51	117	22	108	130	128
1899 .	5,357	80	182	138	1,442	94	5,093	205	62	142	33	162	129	131
1900 .	7,094	106	197	150	1,796	118	6,119	246	63	144	38	186	144	146
1901 .	6,091	91	191	145	1,664	108	6,636	267	50	144	50	245	152	155
1902 .	7,971	120	189	144	2,094	136	7,424	299	81	185	57	279	162	169
1903 .	9,641	146	209	159	2,346	153	7,438	299	67	153	88	431	173	184
1904 .	7,582	114	222	169	1,558	102	8,217	331	72	165	118	583	181	198
1905 .	8,570	129	222	169	1,705	112	8,418	339	103	236	145	710	191	217
1906 .	8,493	127	241	184	2,019	132	9,783	394	91	208	141	690	208	230
1907 .	6,126	92	245	186	1,137	74	11,147	449	69	158	152	745	215	237
1908 .	7,639	115	247	188	1,773	116	12,770	514	72	165	177	867	219	246
1909 .	9,633	144	258	197	2,283	149	11,870	478	83	190	234	1,146	238	278
1910 .	10,061	151	263	201	2,354	153	12,047	485	55	126	215	1,053	247	278
1911 .	9,924	149	269	205	2,369	154	12,716	512	366	838	226	1,107	249	316
1912 .	9,853	148	298	227	2,257	148	14,706	592	580	1,328	249	1,220	279	369
1913 .	8,358	125	307	234	1,876	123	16,208	652	371	850	278	1,362	287	362
1914 .	10,087	151	313	239	2,167	142	16,464	663	442	1,012	259	1,269	282	360
1915 .	8,652	130	372	283	2,060	135	17,104	689	390	893	287	1,406	298	376
1916 .	10,234	153	368	281	2,230	146	17,254	695	412	943	297	1,455	317	397
1917 .	10,162	152	372	283	2,009	132	18,213	733	413	946	283	1,386	327	403
1918 .	7,407	112	381*	289	1,245	81	20,722	833	492	1,122	287	1,406	333	417

(a) Figures not available. (b) Figures defective. * Estimated.

TABLE 4.—PRICES IN INDIA EXPRESSED IN INDEX NUMBERS

(Price in 1873=100.)

Year.	Exported articles (28). (Unweighted.)	Imported articles (11). (Unweighted.)	General index number for all (39) articles. (Unweighted.)	Weighted index number (100 articles) equated to 100 for 1873.
1861	88	95	90	93
1862	88	95	90	93
1863	93	113	98	97
1864	103	132	111	105
1865	100	125	107	109
1866	110	126	115	124
1867	102	124	108	118
1868	94	107	98	107
1869	108	97	105	118
1870	105	95	102	107
1871	95	88	93	93
1872	101	91	98	98
1873	100	100	100	100
1874	102	99	101	108
1875	95	90	94	96
1876	90	91	90	100
1877	110	88	104	129
1878	114	84	106	138
1879	112	83	104	126
1880	110	88	104	109
1881	99	86	96	99
1882	95	85	92	98
1883	93	79	89	99
1884	96	78	91	107
1885	91	75	87	106
1886	93	80	89	103
1887	94	83	91	104
1888	98	92	96	111
1889	104	91	101	117
1890	104	91	100	117
1891	103	84	98	120
1892	109	84	102	132
1893	112	89	105	129
1894	110	84	102	122
1895	111	87	104	120
1896	117	94	110	131
1897	124	86	113	153
1898	102	80	96	125
1899	100	87	96	121
1900	124	96	116	143
1901	116	96	110	139
1902	113	86	106	128
1903	103	88	99	122
1904	104	93	101	121
1905	116	96	110	135
1906	139	105	129	158
1907	145	116	137	167
1908	151	106	138	179
1909	133	99	124	160
1910	127	109	122	150
1911	136	113	129	155
1912	145	117	137	174
1913	154	117	143	182
1914	160	114	147	187
1915	155	146	152	182
1916	163	236	184	185
1917	170	262	196	186
1918	199	289	225	215

TABLE 5

Prices—Gold Prices in India and Foreign Countries

Gold prices in India and foreign countries from 1890 to 1918, as compared with the level of prices prevailing in each country in the quinquennial period 1890–1894.

Year.	India.					United Kingdom.		Canada.	United States.		Australia.
	Department of Statistics.					*Economist.*	Sauerbeck, now *Statist.*	Department of Labour.	Dun.	Gibson.	Bureau of Census and Statistics.
	Unweighted.				W'hted.						
1890-4	100	100	100	100	100	100	100	100	100	100	100
	39 articles.	11 articles.	28 articles.	7 articles.	100 articles.	44 articles.	45 articles.	272 articles.	200 articles.	22 articles.	92 articles.
	General.	Imported.	Exported.	Food-grains.							
1890	116	123	113	109	110	104	105	106	98	95	117
1891	105	105	104	115	105	103	105	104	107	111	104
1892	98	94	98	110	103	99	99	99	98	99	102
1893	98	97	98	93	98	98	99	98	103	100	94
1894	85	82	86	74	84	96	92	93	94	95	83
1895	91	89	91	81	85	89	90	92	88	92	84
1896	101	102	102	111	98	92	89	89	85	74	102
1897	110	99	114	160	123	91	90	88	82	76	102
1898	98	96	98	110	104	91	93	92	87	84	99
1899	99	105	96	110	101	95	99	96	88	91	89
1900	118	114	119	153	119	112	109	104	93	97	99
1901	111	115	111	125	116	108	102	103	104	97	108
1902	108	103	108	113	106	100	101	105	111	117	116
1903	102	106	99	100	103	102	101	106	109	107	116
1904	104	112	100	93	100	104	102	107	109	105	98
1905	112	115	112	117	112	106	105	109	109	103	101
1906	132	127	134	143	132	111	112	115	114	109	105
1907	140	139	140	144	140	117	117	121	117	111	113
1908	140	127	144	183	149	114	106	116	124	118	123
1909	126	119	128	155	134	106	108	116	122	129	110
1910	124	131	122	134	125	116	114	119	135	129	111
1911	132	136	131	129	130	116	117	122	126	124	111
1912	140	140	140	151	145	120	124	129	135	137	130
1913	146	140	148	159	152	128	124	130	132	127	120
1914	150	136	154	177	156	122	124	131	136	133	127
1915	156	176	150	174	153	130	157	143	135	140	178
1916	189	285	157	162	155	168	198	174	150	164	167
1917	206	323	168	166	160	228	255	227	185	242	184
1918	251	378	210	236	196	269	281	267	242	268	213

Note.—To convert an index number of silver prices to an index number of gold prices, the index number of silver prices for any year is multiplied by the rate of exchange for that year, and divided by the rate of exchange in the basic period. To convert, for example, the index number of silver prices for the year 1900, which was 116, to a gold basis with 1873 as the standard period (1873=100), 116 is multiplied by 15·973, the rate of exchange of the year, and divided by 22·351, the rate of exchange of the standard period, *i.e.* the gold prices index number is 83.

In the above table the index number of silver prices in 1900, for example, has been converted to a gold basis with 1890–94 as 100 or the standard period. It was necessary firstly to reduce the index numbers of silver prices on the basis of 1873 to the basic period 1890–94, *i.e.* 116 multiplied by 100 and divided by 101·4, the average of the five years' index numbers 1890–94. This is 114, and 114 is then multiplied by 15·973, the average rate of exchange in 1900, and divided by 15·4904, the average rate of exchange in 1890–94, *i.e.* the index number is 118.

TABLE 6.—GOLD—ESTIMATED WORLD'S PRODUCTION OF GOLD AND SILVER SINCE 1831

Calendar year.	Gold.		Silver.		
	Fine ounces.	Value.	Fine ounces.	Annual average price of bar silver per ounce standard in London.	Estimated value of silver produced at price stated in previous column.
	Fine oz. (millions).	£ (millions).	Fine oz. (millions).	*d.*	£ (millions).
Up to 1830	129	547	4,374	..	1,178
1831–40	7	28	192	$59\frac{13}{16}$	51
1841–50	18	75	251	$59\frac{9}{16}$	67
1851–55	32	136	142	$61\frac{3}{16}$	39
1856–60	32	138	145	$61\frac{5}{8}$	40
1861	6	25	35	$60\frac{13}{16}$	10
1862	6	25	35	$61\frac{7}{16}$	10
1863	6	25	35	$61\frac{3}{8}$	10
1864	6	25	35	$61\frac{3}{8}$	10
1865	6	25	35	$61\frac{1}{16}$	10
1866	6	27	43	$61\frac{1}{8}$	12
1867	6	27	43	$60\frac{9}{16}$	12
1868	6	27	43	$60\frac{1}{2}$	12
1869	6	27	43	$60\frac{7}{16}$	12
1870	6	27	43	$60\frac{9}{16}$	12
1871	6	24	63	$60\frac{1}{2}$	17
1872	6	24	63	$60\frac{5}{16}$	17
1873	5	20	63	$59\frac{1}{4}$	17
1874	4	19	55	$58\frac{5}{16}$	15
1875	5	20	62	$56\frac{7}{8}$	16
1876	5	21	68	$52\frac{3}{4}$	16
1877	6	23	63	$54\frac{13}{16}$	15
1878	6	24	73	$52\frac{9}{16}$	17
1879	5	22	74	$51\frac{1}{4}$	17
1880	5	22	75	$52\frac{1}{4}$	18
1881	5	21	79	$51\frac{11}{16}$	18
1882	5	21	86	$51\frac{5}{8}$	20
1883	5	20	89	$50\frac{9}{16}$	20
1884	5	21	82	$50\frac{5}{8}$	19
1885	5	22	92	$48\frac{5}{8}$	20
1886	5	22	93	$45\frac{3}{8}$	19
Carry forward	361	1,530	6,674	..	1,766

TABLE 6 (*continued*).—GOLD—ESTIMATED WORLD'S PRODUCTION OF GOLD AND SILVER SINCE 1831

Calendar year.	Gold.		Silver.		
	Fine ounces.	Value.	Fine ounces.	Annual average price of bar silver per ounce standard in London.	Estimated value of silver produced at price stated in previous column.
	Fine oz. (millions).	£ (millions).	Fine oz. (millions).	*d.*	£ (millions).
Brought forward	361	1,530	6,674	..	1,766
1887 . . .	5	22	96	$44\frac{5}{8}$	19
1888 . . .	5	23	109	$42\frac{7}{8}$	21
1889 . . .	6	25	120	$42\frac{11}{16}$	23
1890 . . .	6	24	126	$47\frac{11}{16}$	27
1891 . . .	6	27	137	$45\frac{1}{16}$	28
1892 . . .	7	30	153	$39\frac{13}{16}$	27
1893 . . .	8	32	165	$35\frac{5}{8}$	27
1894 . . .	9	37	165	$28\frac{15}{16}$	21
1895 . . .	10	41	168	$29\frac{7}{8}$	23
1896 . . .	10	42	157	$30\frac{3}{4}$	22
1897 . . .	11	49	160	$27\frac{9}{16}$	20
1898 . . .	14	59	169	$26\frac{15}{16}$	21
1899 . . .	15	63	168	$27\frac{7}{16}$	21
1900 . . .	12	52	174	$28\frac{1}{4}$	22
1901 . . .	13	54	173	$27\frac{3}{16}$	21
1902 . . .	14	61	163	$24\frac{1}{16}$	18
1903 . . .	16	67	168	$24\frac{3}{4}$	19
1904 . . .	17	71	164	$26\frac{3}{8}$	20
1905 . . .	18	78	172	$27\frac{13}{16}$	22
1906 . . .	19	83	165	$30\frac{7}{8}$	23
1907 . . .	20	85	184	$30\frac{3}{16}$	25
1908 . . .	21	91	203	$24\frac{3}{8}$	22
1909 . . .	22	93	212	$23\frac{11}{16}$	23
1910 . . .	22	94	222	$24\frac{5}{8}$	25
1911 . . .	22	95	226	$24\frac{9}{16}$	25
1912 . . .	23	96	224	$28\frac{1}{32}$	28
1913 . . .	22	93	224	$27\frac{9}{16}$	28
1914 . . .	21	90	161	$25\frac{5}{16}$	18
1915 . . .	23	97	180	$23\frac{11}{16}$	19
1916 . . .	22	93	161	$31\frac{5}{16}$	23
1917 . . .	20	87	164	$40\frac{7}{8}$	30
1918 . . .	18	78	180	$47\frac{9}{16}$	39
Total . .	838	3,562	12,087	..	2,516

TABLE 7.—Production of Gold and Silver in certain chief producing Countries

(a) Production of Gold.

Countries.	1913 (pre-war year). Production.	Value.	1917. Production.	Value.
	Fine oz. (thousands).	£ (thousands).	Fine oz. (thousands).	£ (thousands).
South Africa (mainly Transvaal) . . .	9,489	40,305	9,856	41,867
United States of America	4,300	18,264	4,051	17,209
Australia	2,207	9,374	1,450	6,160
Western Australia .	1,314	5,582	974	4,137
Victoria . . .	435	1,847	199	847
Queensland. . .	266	1,129	175	745
New South Wales .	150	636	82	349
Tasmania . . .	33	142	14	59
South Australia .	6	27	5	21
Northern Territory .	3	11	1	2
Russia	1,074	4,562	871	3,699
Canada	803	3,411	735	3,123
India (including Burma) .	540	2,292	523	2,222
Mexico	909	3,861	435	1,849
Colombia	193	820	300	1,274
New Zealand . . .	344	1,459	280	1,189
Japan (includingFormosa)	211	897	271	1,150
China	177	752	174	740
Brazil	87	367	143	608
Austria-Hungary . .	103	438	48	205
Other countries . . .	1,345	5,721	1,354	5,746
Total . . .	21,782	92,523	20,491	87,041

(b) Production of Silver.

Countries.	1913 (pre-war year.) Production.	Value.	1917. Production.	Value.
	Fine oz. (thousands).	£ (thousands).	Fine oz. (thousands).	£ (thousands)
United States of America	66,801	8,294	71,740	13,209
Mexico	70,704	8,778	31,214	5,747
Canada	31,525	3,914	22,151	4,078
Peru	8,352	1,037	11,000	2,025
Japan	4,650	577	6,845	1,260
Spain	4,232	525	4,500	829
Bolivia and Chile . .	4,050	503	4,107	756
New South Wales . .	14,164	1,759	2,800	516
India (including Burma) .	116	15	1,463	237
Other countries . . .	19,314	2,397	8,173	1,538
Total . . .	223,908	27,799	163,993	30,195

TABLE 8.—GOLD—IMPORTS, EXPORTS, AND NET IMPORTS OF GOLD (ON PRIVATE AND GOVERNMENT ACCOUNT)

Year.	Gold.					
	Imports.		Exports.		Net Imports.	
	R. (lakhs).	£ (millions).	R. (lakhs).	£ (millions).	R. (lakhs).	£ (millions).
1835–36	33	·3	..	..	33	·3
1836–37	42	·4	..	..	42	·4
1837–38	46	·44	3	·03	43	·41
1838–39	27	·3	1	..	26	·3
1839–40	23	·2	..	..	23	·2
1840–41	14	·1	..	..	14	·1
1841–42	17	·2	..	..	17	·2
1842–43	21	·2	..	..	21	·2
1843–44	41	·4	..	..	41	·4
1844–45	72	·6	1	..	71	·6
1845–46	55	·5	1	..	54	·5
1846–47	85	·8	..	..	85	·8
1847–48	1,05	·96	1	..	1,04	·96
1848–49	1,40	1·23	5	·05	1,35	1·18
1849–50	1,16	1·09	4	·04	1,12	1·05
1850–51	1,15	1·16	..	..	1,15	1·16
1851–52	1,34	1·35	7	·07	1,27	1·28
1852–53	1,34	1·33	17	·17	1,17	1·16
1853–54	1,08	1·08	2	·02	1,06	1·06
1854–55	88	·85	15	·15	73	·70
1855–56	2,51	2·52	..	..	2,51	2·52
1856–57	2,18	2·28	9	·09	2,09	2·19
1857–58	2,83	2·90	5	·05	2,78	2·85
1858–59	4,44	4·56	1	·01	4,43	4·55
1859–60	4,29	4·40	1	·01	4,28	4·39
1860–61	4,24	4·35	1	·01	4,23	4·34
1861–62	5,19	5·16	1	·01	5,18	5·15
1862–63	6,88	6·84	3	·03	6,85	6·81
1863–64	8,93	8·88	3	·03	8,90	8·85
1864–65	9,88	9·83	4	·04	9,84	9·79
1865–66	6,37	6·30	65	·64	5,72	5·66
1866–67	4,58	4·39	74	·71	3,84	3·68
1867–68	4,78	4·60	17	·16	4,61	4·44
1868–69	5,18	4·99	2	·02	5,16	4·97
1869–70	5,69	5·51	10	·10	5,59	5·41
1870–71	2,79	2·60	50	·47	2,29	2·13
1871–72	3,57	3·44	1	·01	3,56	3·43
1872–73	2,62	2·48	8	·07	2,54	2·41
1873–74	1,65	1·54	27	·25	1,38	1·29
1874–75	2,09	1·93	22	·20	1,87	1·73
1875–76	1,84	1·66	29	·26	1,55	1·40
1876–77	1,44	1·23	1,23	1·05	21	·18

NOTE.—To convert rupees into £ sterling the average rate of exchange for each year prior to 1899–1900 has been taken.

TABLE 8 (*continued*).—GOLD—IMPORTS, EXPORTS, AND NET IMPORTS OF GOLD (ON PRIVATE AND GOVERNMENT ACCOUNT)

Year.	Gold.					
	Imports.		Exports.		Net Imports.	
	R. (lakhs).	£ (millions).	R. (lakhs).	£ (millions).	R. (lakhs).	£ (millions).
1877–78	1,58	1·37	1,11	·96	47	·41
1878–79	1,46	1·20	2,36	1·94	– 90 *	– ·74 *
1879–80	2,05	1·70	30	·25	1,75	1·45
1880–81	3,67	3·05	2	·02	3,65	3·03
1881–82	4,86	4·03	1	·01	4,85	4·02
1882–83	5,10	4·15	17	·14	4,93	4·01
1883–84	5,47	4·45	1	·01	5,46	4·44
1884–85	4,78	3·85	11	·09	4,67	3·76
1885–86	3,09	2·35	33	·25	2,76	2·10
1886–87	2,83	2·05	65	·47	2,18	1·58
1887–88	3,24	2·28	25	·18	2,99	2·10
1888–89	3,12	2·13	31	·21	2,81	1·92
1889–90	5,07	3·50	46	·32	4,61	3·18
1890–91	6,50	4·90	86	·65	5,64	4·25
1891–92	4,12	2·87	1,71	1·19	2,41	1·68
1892–93	1,78	1·11	4,59	2·86	– 2,81 *	– 1·75 *
1893–94	3,15	1·91	2,51	1·52	64	·39
1894–95	1,76	1·0	6,73	3·7	– 4,97 *	– 2·7 *
1895–96	5,03	2·9	2,50	1·4	2,53	1·5
1896–97	4,49	2·7	2,20	1·3	2,29	1·4
1897–98	7,28	4·7	2,37	1·5	4,91	3·2
1898–99	8,84	5·9	2,34	1·6	6,50	4·3
1899–1900	11,45	7·6	2,01	1·3	9,44	6·3
1900–01	11,90	7·9	11,06	7·4	84	·5
1901–02	8,31	5·5	6,37	4·2	1,94	1·3
1902–03	13,19	8·8	4,43	3·0	8,76	5·8
1903–04	20,15	13·4	10,22	6·8	9,93	6·6
1904–05	21,81	14·5	12,11	8·0	9·70	6·5
1905–06	14,75	9·8	14,29	9·5	46	·3
1906–07	18,53	12·3	3,68	2·4	14,85	9·9
1907–08	20,75	13·8	3,38	2·2	17,37	11·6
1908–09	8,40	5·6	4,05	2·7	4,35	2·9
1909–10	25,03	16·7	3,35	2·2	21,68	14·5
1910–11	27,89	18·6	3,91	2·6	23,98	16·0
1911–12	41,49	27·6	3,73	2·5	37,76	25·1
1912–13	41,29	27·5	7,29	4·9	34,00	22·6
1913–14	28,23	18·8	4,90	3·2	23,33	15·6
1914–15	10,70	7·1	3,06	2·0	7,64	5·1
1915–16	5,28	3·5	6,39	4·2	– 1,11 *	– ·7 *
1916–17	13,34	8·89	10	·07	13,24	8·82
1917–18	29,10	19·4	3,92	2·6	25,18	16·8
1918–19	2,28	1·5	7,84	5·2	– 5,56 *	– 3·7 *

* Net exports, the exports being larger than the imports.

NOTE.—To convert rupees into £ sterling the average rate of exchange for each year prior to 1899–1900 has been taken.

TABLE 9.—Gold—Absorption of Gold (both Coin and Bullion) in India

(In thousands of £ sterling).

	1873-74.	Average of 5 years ending 1878-79.	1883-84.	1888-89.	1893-94.	1898-99.	1903-4.	1908-9.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.	1918-19.
1. Production . .	..	..	..	..	463	1,226	1,967	2,267	2,243	2,340	2,367	2,303	2,222	2,061
2. Imports . .	..	..	..	..	2,857	3,403	8,667	11,233	21,858	7,133	3,520	2,839*	17,925*	1,517*
3. Exports . .	..	..	..	..	1,310	1,894	4,547	5,000	3,091	2,040	4,260	67	125*	3,555*
4. Net imports (*i.e.* 2-3) . . .	1,285	594	3,394	2,297	1,547	1,509	4,120	6,233	18,767	5,093	-740	2,772*	17,800*	-2,038*
5. Net addition to stock (*i.e.* 1+4) .	1,285	594	3,394	2,297	2,010	2,735	6,087	8,500	21,010	7,433	1,627	5,075	20,022	23
6. Balance held in Mint and Government Treasuries and Currency and Gold Standard Reserves .	..	..	..	..	..	439	8,587	4,380	12,740	10,386	8,428	8,110	17,911	11,583
7. Increase (+) or decrease (−) in stock held in Mints, etc., as compared with the preceding year .	..	..	..	..	..	+405	+1,780	−2,167	+2,983	−4,614	−1,958	−318	+9,801	−6,328
8. Net absorption (*i.e.* 5−7) . . .	1,285	594	3,394	2,297	2,010	2,330	4,307	10,667	18,027	12,047	3,585	5,393	10,221	6,351
9. Progressive total of additions to stock .	1,285	3,963	12,504	25,766	34,853	37,650	67,460	105,873	184,770	236,046	237,673	242,748	262,770	262,793
10. Net progressive absorption . . .	1,285	3,963	12,504	25,766	34,853	37,211	58,873	101,493	172,029	225,660	229,245	234,638	244,859	251,210

* Excludes gold imported and exported on behalf of the Bank of England.

Note.—The quinquennial average figures are inserted only for comparative purposes. The progressive total of additions to stock (item 9) and net progressive absorption (item 10) are calculated on the annual figures and are not based on these averages. Item 9 is the sum of the yearly figures in item 5 and item 10 the sum of the yearly figures in item 8.

TABLE 10.—Net Absorption of (1) British Gold Coin and (2) Rupees (including Half-Rupees) in India from 1899–1900 to 1918–19

Year ended March 31.	Net absorption of gold coin.*	Net absorption of rupees and half-rupees.
	£ (thousands).	R. (lakhs).
1900	2,700	13,93
1901	2,049	8·62
1902	977	– 68
1903	2,152	2
1904	3,283	10,97
1905	2,943	7,43
1906	3,797	14,50
1907	5,135	18,00
1908	7,385	3,92
1909	3,432	– 14,88
1910	2,874	13,22
1911	8,103	3,34
1912	8,884	11,54
1913	11,101	10,49
1914	12,074	5,32
1915	5,623	– 6,70
1916	192	10,40
1917	2,117	33,81
1918	9,506	27,86
1919	3,475	45,02

* Includes figures of direct absorption, *i.e.* the imports other than those tendered by Government.

TABLE 11.—SILVER—IMPORTS, EXPORTS, AND NET IMPORTS OF SILVER (ON PRIVATE AND GOVERNMENT ACCOUNT).

Year.	Silver.					
	Imports.		Exports.		Net Imports.	
	R. (lakhs).	£ (millions).	R. (lakhs).	£ (millions).	R. (lakhs).	£ (millions).
1835–36	1,83	1·7	22	·2	1,61	1·5
1836–37	1,65	1·6	31	·3	1,34	1·3
1837–38	2,22	2·1	25	·2	1,97	1·9
1838–39	2,85	2·8	21	·2	2,64	2·6
1839–40	1,94	1·9	29	·3	1,65	1·6
1840–41	1,71	1·7	31	·3	1,40	1·4
1841–42	1,68	1·6	40	·4	1,28	1 2
1842–43	3,23	3·2	28	·3	2,95	2·9
1843–44	4,74	4·5	1,05	1·0	3,69	3·5
1844–45	3,18	2·9	1,19	1·1	1,99	1·8
1845–46	1,96	1·8	1,03	1·0	93	·8
1846–47	2,09	2·0	71	·7	1,38	1·3
1847–48	92	·8	1,41	1·3	– 49 *	– ·5 *
1848–49	2,80	2·5	2,48	2·2	32	·3
1849–50	2,23	2·1	96	·9	1,27	1·2
1850–51	2,66	2·7	54	·6	2,12	2·1
1851–52	3,71	3·7	85	·8	2,86	2·9
1852–53	5,49	5·5	89	·9	4,60	4·6
1853–54	3,77	3·8	1,46	1·5	2,31	2·3
1854–55	1,14	1·0	1,11	1·0	3	..
1855–56	8,79	8·8	60	·6	8,19	8·2
1856–57	12,24	12·8	1,16	1·2	11,08	11·6
1857–58	12,99	13·3	77	·8	12,22	12·5
1858–59	8,38	8·6	65	·7	7,73	7·9
1859–60	12,07	12·4	92	1·0	11,15	11·4
1860–61	6,43	6·6	1,10	1·1	5,33	5·5
1861–62	9,76	9·7	67	·7	9,09	9.0
1862–63	13,63	13·6	1,08	1·1	12,55	12·5
1863–64	14,04	13·9	1,24	1·2	12,80	12·7
1864–65	11,49	11·4	1,41	1·4	10,08	10·0
1865–66	20,18	20·0	1,51	1·5	18,67	18·5
1866–67	8,65	8·3	1,69	1·6	6,96	6·7
1867–68	7,00	6·7	1,41	1·3	5,59	5·4
1868–69	9,98	9·6	1,38	1·3	8,60	8·3
1869–70	8,26	8·0	94	·9	7,32	7·1
1870–71	2,66	2·5	1,72	1·6	94	·9
1871–72	8,01	7·7	1,49	1·4	6,52	6·3
1872–73	1,93	1·9	1,22	1·2	71	·7
1873–74	4,14	3·8	1,65	1·5	2,49	2·3
1874–75	6,05	5·6	1,41	1·3	4,64	4·3
1875–76	3,46	3·1	1,91	1·7	1,55	1·4
1876–77	9,99	8·5	2,79	2·4	7,20	6·1

* Net exports, the exports being larger than the imports.

NOTE.—To convert rupees into £ sterling the average rate of exchange for each year prior to 1899–1900 has been taken.

TABLE 11 (*continued*).—SILVER—IMPORTS, EXPORTS, AND NET IMPORTS OF SILVER (ON PRIVATE AND GOVERNMENT ACCOUNT)

Year.	Silver.					
	Imports.		Exports.		Net Imports.	
	R. (lakhs).	£ (millions).	R. (lakhs).	£ (millions).	R. (lakhs).	£ (millions).
1877–78 . .	15,78	13·7	1,10	1·0	14,68	12·7
1878–79 . .	5,59	4·6	1,62	1·3	3,97	3·3
1879–80 . .	9,60	7·9	1,73	1·4	7,87	6·5
1880–81 . .	5,31	4·4	1,42	1·2	3,89	3·2
1881–82 . .	6,47	5·4	1,09	·9	5,38	4·5
1882–83 . .	8,36	6·8	88	·7	7,48	6·1
1883–84 . .	7,41	6·0	1,00	·8	6,41	5·2
1884–85 . .	9,11	7·3	1,86	1·5	7,25	5·8
1885–86 . .	12,39	9·4	78	·6	11,61	8·8
1886–87 . .	8,22	6·0	1,06	·8	7,16	5·2
1887–88 . .	10,59	7·5	1,36	1·0	9,23	6·5
1888–89 . .	10,73	7·3	1,48	1·0	9,25	6·3
1889–90 . .	12,39	8·6	1,45	1·0	10,94	7·6
1890–91 . .	15,43	11·6	1,26	·9	14,17	10·7
1891–92 . .	10,60	7·4	1,58	1·1	9,02	6·3
1892–93 . .	15,23	9·5	2,37	1·5	12,86	8·0
1893–94 . .	15,31	9·3	1,59	1·0	13,72	8·3
1894–95 . .	7,82	4·2	1,49	·8	6,33	3·4
1895–96 . .	8,34	4·7	1,76	1·0	6,58	3·7
1896–97 . .	8,59	5·2	2,74	1·7	5,85	3·5
1897–98 . .	13,25	8·5	4,78	3·1	8,47	5·4
1898–99 . .	9,05	6·0	5,07	3·4	3,98	2·6
1899–1900 . .	9,53	6·4	5,95	4·0	3,58	2·4
1900–01 . .	12,68	8·4	3,17	2·1	9,51	6·3
1901–02 . .	12,29	8·2	5,10	3·4	7,19	4·8
1902–03 . .	12,19	8·1	5,23	3·5	6,96	4·6
1903–04 . .	18,38	12·2	4,73	3·1	13,65	9·1
1904–05 . .	17,70	11·8	4,34	2·9	13,36	8·9
1905–06 . .	16,90	11·3	1,18	·8	15,72	10·5
1906–07 . .	26,04	17·4	2,04	1·4	24,00	16·0
1907–08 . .	21,53	14·4	2,06	1·4	19,47	13·0
1908–09 . .	14,34	9·5	2,27	1·5	12,07	8·0
1909–10 . .	12,49	8·3	3,05	2·0	9,44	6·3
1910–11 . .	11,88	7·9	3,21	2·1	8,67	5·8
1911–12 . .	11,98	8·0	6,64	4·4	5,34	3·6
1912–13 . .	20,54	13·7	3,34	2·2	17,20	11·5
1913–14 . .	15,21	10·1	2,18	1·4	13,03	8·7
1914–15 . .	11,10	7·4	2,23	1·5	8,87	5·9
1915–16 . .	6,66	4·4	1,83	1·2	4,83	3·2
1916–17 . .	25,11	16·7	6,31	4·2	18,80	12·5
1917–18 . .	26,67	15·1	3,63	2·4	19,04	12·7
1918–19 . .	69,09	46·1	1,17	·8	67,92	45·3

NOTE.—To convert rupees into £ sterling the average rate of exchange for each year prior to 1899–1900 has been taken.

TABLE 12.—Silver—Imports and Price of Silver and the Average Rate of Exchange

Year ended March 31.	Net imports of silver into India.	Average price of silver per oz.	Average rate of exchange per rupee.	Year ended March 31.	Net imports of silver into India.	Average price of silver per oz.	Average rate of exchange per rupee.
	Oz (thousands).	*d.*	*d.*		Oz. (thousands)	*d.*	*d.*
1872 .	22,852	$60\frac{1}{2}$	23·125	1896 .	27,018	$29\frac{7}{8}$	13·638
1873 .	2,506	$60\frac{5}{16}$	22·750	1897 .	25,929	$30\frac{3}{4}$	14·450
1874 .	8,747	$59\frac{1}{4}$	22·351	1898 .	44,285	$27\frac{9}{16}$	15·402
1875 .	16,270	$58\frac{5}{16}$	22·221	1899 .	23,165	$26\frac{15}{16}$	15·978
1876 .	5,451	$56\frac{7}{8}$	21·645	1900 .	18,646	$27\frac{7}{16}$	16·067
1877 .	25,230	$52\frac{3}{4}$	20·491	1901 .	49,435	$28\frac{1}{4}$	15·973
1878 .	51,436	$54\frac{13}{16}$	20·790	1902 .	39,005	$27\frac{3}{16}$	15·987
1879 .	13,916	$52\frac{9}{16}$	19·761	1903 .	42,274	$24\frac{1}{16}$	16·002
1880 .	27,581	$51\frac{1}{4}$	19·961	1904 .	79,182	$24\frac{3}{4}$	16·049
1881 .	13,642	$52\frac{1}{4}$	19·956	1905 .	74,349	$26\frac{3}{8}$	16·045
1882 .	18,852	$51\frac{11}{16}$	19·895	1906 .	84,318	$27\frac{13}{16}$	16·042
1883 .	26,216	$51\frac{5}{8}$	19·525	1907 .	118,199	$30\frac{7}{8}$	16·084
1884 .	22,448	$50\frac{9}{16}$	19·536	1908 .	97,915	$30\frac{3}{16}$	16·029
1885 .	25,394	$50\frac{5}{8}$	19·308	1909 .	73,740	$24\frac{3}{8}$	15·964
1886 .	40,678	$48\frac{5}{8}$	18·254	1910 .	61,015	$23\frac{11}{16}$	16·041
1887 .	25,079	$45\frac{3}{8}$	17.441	1911 .	54,876	$24\frac{5}{8}$	16·060
1888 .	32,783	$44\frac{5}{8}$	16·899	1912 .	32,229	$24\frac{9}{16}$	16·083
1889 .	32,436	$42\frac{7}{8}$	16·379	1913 .	91,077	$28\frac{1}{32}$	16·058
1890 .	38,644	$42\frac{11}{16}$	16·566	1914 .	71,107	$27\frac{9}{16}$	16·070
1891 .	51,529	$47\frac{11}{16}$	18·089	1915 .	55,766	$25\frac{5}{16}$	16·004
1892 .	32,348	$45\frac{1}{16}$	16·733	1916 .	32,932	$23\frac{11}{16}$	16·087
1893 .	45,524	$39\frac{13}{16}$	14·984	1917 .	92,194	$31\frac{5}{16}$	16·148
1894 .	54,329	$35\frac{5}{16}$	14·546	1918 .	74,531	$40\frac{7}{8}$	16·532
1895 .	27,040	$28\frac{15}{16}$	13·100	1919 .	237,029	$47\frac{9}{16}$	17·544

Note.—Figures relating to the average price of silver per oz. refer to calendar year, and the calendar year 1918, for example, corresponds more nearly to the fiscal year ending March 31, 1919, than to that ending March 31, 1918.

TABLE 13.—THE SILVER CONTENT OF THE RUPEE

Price of silver per standard oz in London with the equivalent gold price of the silver in the rupee. The rupee contains 165 grains of fine silver. The rupee itself weighs 180 grains and is $\frac{11}{12}$ths fine.

Price in London per standard oz.	The equivalent metallic value of 165 grains.	Price in London per standard oz.	The equivalent metallic value of 165 grains.
d.	*d.*	*d.*	*d.*
20	7·432	43	15·979
21	7·804	44	16·351
22	8·176	45	16·723
23	8·547	46	17·094
24	8·918	47	17·466
25	9·291	48	17·838
26	9·662	49	18·209
27	10·034	50	18·581
28	10·046	51	18·952
29	10·777	52	19·324
30	11·149	53	19·696
31	11·520	54	20·067
32	11·892	55	20·439
33	12·263	56	20·811
34	12·635	57	21·182
35	13·007	58	21·554
36	13·378	59	21·925
37	13·750	60	22·297
38	14·121	61	22·671
39	14·493	62	23·041
40	14·865	63	23·412
41	15·236	64	23·782
42	15·608	65	24·156

NOTE.—This table contains only the equivalent value in sterling of the silver content of the rupee excluding freight, insurance, and other charges.

TABLE 14.—RUPEE COINAGE (INCLUDING SMALL SILVER PIECES) IN INDIA

(In lakhs of rupees.)

Year ended March 31.	New coinage.	Re-coinage.	Net coinage.	Total coinage per capita. R. A. P.
1836–1845 (average) .	3,60	1,24	2,36	*
1846–1855 ,, .	3,25	68	2,57	*
1856–1865 ,, .	9,09	49	8,60	*
1866–1875 ,, .	5,13	7	5,06	*
1876–1885 ,, .	6,49	25	6,24	0 4 1
1886–1895 ,, .	7,79	26	7,53	0 4 4
1892	5,55	19	5,36	0 3 1
1893	12,69	18	12,51	0 7 1
1894	4,81	20	4,61	0 2 8
1895	9	6	3	0 0 1
1896	29	29	..	0 0 2
1897	57	64	− 7	0 0 4
1898	99	61	38	0 0 7
1899	70	33	37	0 0 5
1900	2,23	91	1,32	0 1 3
1901	17,26	33	16,93	0 9 5
1902	5,13	1,31	3,82	0 2 9
1903	11,39	8,14	3,25	0 6 2
1904	16,53	5,38	11,15	0 9 0
1905	11,37	3,56	7,81	0 6 2
1896–1905 (average) .	6,65	2,15	4,50	0 3 7
1906	20,00	3,12	16,88	0 10 10
1907	26,09	2,71	23,38	0 14 2
1908	18,12	2,42	15,70	0 9 10
1909	2,85	2,61	24	0 1 7
1910	2,18	2,26	− 8	0 1 2
1906–1910 (average) .	13,85	2,62	11,23	0 7 6
1911	2,19	2,18	1	0 1 1
1912	2,81	2,51	30	0 1 5
1913	19,54	3,54	16,00	0 9 11
1914	13,16	2,65	10,51	0 6 8
1915	2,18	2,04	14	0 1 1
1911–1915 (average) .	7,98	2,59	5,39	0 4 3
1916	1,62	1,64	− 2	0 0 10
1917	30,77	1,39	29,38	0 15 7
1918	23,87	1,27	22,60	0 12 1
1919	52,05	55	51,50	1 10 5
1915–1919 (war average)	22,10	1,38	20,72	0 11 2

* Population figures for the whole of India not available.

TABLE 15.—GROSS COINAGE—WHOLE RUPEES COINED AND ISSUED FROM THE INDIAN MINTS FROM 1835

Calendar years.		Total coined.	Calendar years.		Total coined.
		R. (lakhs).			R. (lakhs).
			Brought forward		3,35,61
William IV.,	1835	16,40	Victoria,	1897	15
Victoria,	1840 *	31,17	,,	1898	75
,,	1840 †	76,66	,,	1900	11,81
,,	1862	70,69	,,	1901	10,91
,,	1874	4,35	,,	1901 ‡	9,31
,,	1875	3,10	Edward VII.,	1903	10,23
,,	1876	4,10	,,	1904	16,03
,,	1877	13,48	,,	1905	12,75
,,	1878	9,66	,,	1906	26,37
,,	1879	8,87	,,	1907	25,22
,,	1880	7,22	,,	1908	3,09
,,	1881	56	,,	1909	2,23
,,	1882	7,15	,,	1910	1,77
,,	1883	2,32	,,	1910 §	58
,,	1884	4,85	George V.,	1911	94
,,	1885	9,90	,,	1912	12,42
,,	1886	5,20	,,	1913	16,33
,,	1887	8,86	,,	1914	4,84
,,	1888	7,08	,,	1915	1,53
,,	1889	7,47	,,	1916	21,29
,,	1890	11,76	,,	1917	26,48
,,	1891	6,42	,,	1917 ‖	18
,,	1892	10,47	,,	1918	41,19
,,	1893	7,87	,,	1919	13,71
Carry forward		3,35,61	Total		6,05,72

* First issue. † Second issue. ‡ Coined in 1902. § Coined in 1911. ‖ Coined in 1918.

NOTE.—Net coinage will be found in Table 14.

TABLE 16.—PAPER CURRENCY—CIRCULATION OF RUPEES, NOTE CIRCULATION, CLEARINGS (IN THE PORTS * OF CALCUTTA, BOMBAY, MADRAS, KARACHI, AND RANGOON), WITH PER CAPITA AVERAGES

Year.	Circulation of rupees.		Active note circulation on March 31.		Total rupees and notes.		Clearings.		Grand Total.	
	Amount.	Per capita.	Amount.	Per capita.	Amount.	Per capita.	Amount.	Per capita.	Amount.	Per capita.
	R. (crores.)	R.	R. (crores.)	R.	R. (crores.)	R.	R. (crores.)	R.	R. (crores.)	R.
1900 .	130	4·5	22	·8	152	5·3	212	7·4	364	12·7
1901 .	143	4·9	22	·7	165	5·6	213	7·2	378	12·8
1902 .	138	4·7	22	·7	160	5·4	232	7·9	392	13·3
1903 .	136	4·6	25	·9	161	5·5	247	8·4	408	13·9
1904 .	144	4·9	28	·9	172	5·8	255	8·7	427	14·5
1905 .	152	5·2	28	·9	180	6 1	304	10·3	484	16·4
1906 .	164	5·6	33	1·1	197	6·7	335	11·4	532	18·1
1907 .	178	6·1	36	1 2	214	7·3	428	14·6	642	21·9
1908 .	191	6·5	32	1·1	223	7·6	410	13·9	633	21·5
1909 .	187	6·3	35	1·2	222	7 5	412	14·0	634	21·5
1910 .	186	6 3	40	1·4	226	7·7	465	15·8	691	23·5
1911 .	184	5·8	40	1·3	224	7·1	516	16·4	740	23·5
1912 .	182	5·8	44	1·4	226	7·2	589	18·7	815	25·9
1913 .	191	6·0	47	1·5	238	7·5	650	20·6	888	28·1
1914 .	187	5·9	50	1·6	237	7·5	538	17·1	775	24·6
1915 .	204	6·5	44	1·4	248	7·9	563	17·8	811	25·7
1916 .	212	6·7	53	1·7	265	8·4	809	25·6	1,074	34·0
1917 .	227	7·2	67	2·1	294	9·3	901	28·6	1,195	37·9
1918 .	219	6·9	84	2·7	303	9·6	1,396	44·3	1,699	53·9
1919 .	228	7·2	134	4·2	362	11·4	†	†	†	†

* Figures for Karachi are included from 1901 and those for Rangoon from 1907, previous figures not being available. The figures for Karachi and Rangoon are comparatively small. The Rangoon figure for the five pre-war years was 268 crores.

† Figures not yet available.

TABLE 17.—PAPER CURRENCY—COMPOSITION AND LOCATION OF THE PAPER CURRENCY RESERVE

(In lakhs of rupees.)

Year (last day of March).	Gross circulation.	Silver. In India. Coin.	Bullion.	Total.	In England.	In transit between India and England.	In U.S.A. and in transit therefrom.	Total.
1901 . .	29,87	9,42	1,78	11,20	..	..	..	11,20
1902 . .	31,66	11,12	..	11,12	..	..	..	11,12
1903 . .	35,72	10,93	..	10,93	..	..	..	10,93
1904 . .	38,21	11,50	53	12,03	..	..	..	12,03
1905 . .	39,18	11,37	1,70	13,07	..	..	..	13,07
1906 . .	44,66	13,58	95	14,53	..	1,82	..	16,35
1907 . .	46,95	13,70	3,06	16,76	..	2,15	..	18,91
1908 . .	46,89	25,18	8	25,26	..	..	..	25,26
1909 . .	45,49	31,12	8	31,20	..	..	..	31,20
1910 . .	54,41	29,28	8	29,36	..	..	..	29,36
1911 . .	54,99	26,06	8	26,14	..	..	..	26,14
1912 . .	61,36	15,40	8	15,48	..	..	..	15,48
1913 . .	68,98	16,45	..	16,45	..	..	..	16,45
1914 . .	66,12	20,53	..	20,53	..	..	..	20,53
1915 . .	61,63	32,34	..	32,34	..	..	..	32,34
1916 . .	67,73	23,06	..	23,06	51	..	..	23,57
1917 . .	86,37	17,08	2,00	19,08	13	..	..	19,21
1918 . .	99,79	10,40	39	10,79	..	..	..	10,79
1919 . .	1,53,46	16,66	15,69	32,35	..	..	5,04	37,39

(In lakhs of rupees.)

Year (last day of March).	Gold. Coin and bullion in India.	Coin and bullion in England.	Total.	Securities. In India.	In England.	Total.
1901 . .	8,67	..	8,67	10,00	..	10,00
1902 . .	10,54	..	10,54	10,00	..	10,00
1903 . .	14,79	..	14,79	10,00	..	10,00
1904 . .	16,18	..	16,18	10,00	..	10,00
1905 . .	16,11	..	16,11	10,00	..	10,00
1906 . .	5,74	10,57	16,31	10,00	2,00	12,00
1907 . .	5,50	10,54	16,04	10,00	2,00	12,00
1908 . .	4,07	5,56	9,63	10,00	2,00	12,00
1909 . .	4	2,25	2,29	10,00	2,00	12,00
1910 . .	9,30	3,75	13,05	10,00	2,00	12,00
1911 . .	9,28	7,57	16,85	10,00	2,00	12,00
1912 . .	23,33	8,55	31,88	10,00	4,00	14,00
1913 . .	29,38	9,15	38,53	10,00	4,00	14,00
1914 . .	22,44	9,15	31,59	10,00	4,00	14,00
1915 . .	7,64	7,65	15,29	10,00	4,00	14,00
1916 . .	12,24	11,92	24,16	10,00	10,00	20,00
1917 . .	12,00	6,67	18,67	10,00	38,49	48,49
1918 . .	26,85	67	27,52	10,00	51,48	61,48
1919 . .	17,37	12	17,49	16,08	82,50	98,58

TABLE 18.—PAPER CURRENCY—THE DENOMINATIONS OF CURRENCY NOTES IN CIRCULATION ON THE LAST DAY OF EACH YEAR FROM 1910 TO 1919

Last day of March.	Circulation in lakhs of rupees of notes for										
	R. 1.	R. 2–8.	R. 5.	R. 10.	R. 20.	R. 50.	R. 100.	R. 500.	R. 1,000.	R. 10,000	R. Total.
1910 . .	..	..	1,14	11,60	84	1,71	14,36	3,10	8,84	12,82	54,41
1911 . .	..	..	1,21	12,53	21	2,63	14,06	2,82	8,55	12,98	54,99
1912 . .	..	..	1,30	15,09	13	1,90	16,52	2,30	9,30	14,32	61,36
1913 . .	..	..	1,48	17,94	10	1,72	17,76	2,72	9,04	18,22	68,98
1914 . .	..	..	1,61	17,73	8	1,78	17,81	2,64	9,17	15,30	66,12
Pre-war average 1910–14	..	..	1,35	14,98	27	1,95	16,10	2,81	8,98	14,73	61,17
1915 . .	..	..	1,57	14,99	6	1,75	16,05	2,36	9,20	15,65	61,63
1916 . .	..	..	2,25	18,80	5	2,24	20,39	2,33	8,99	12,68	67,73
1917 . .	..	..	3,31	22,60	4	2,52	25,32	2,45	11,24	18,89	86,37
1918 . .	33	18	5,45	27,33	4	3,45	32,53	2,49	13,80	14,19	99,79
1919 . .	10,51	1,84	9,20	46,90	3	4,90	43,81	2,48	15,11	18,68	1,53,46

Last day of March.	Percentage to Total.									
	R. 1.	R. 2–8.	R. 5.	R. 10.	R. 20.	R. 50.	R. 100.	R. 500.	R. 1,000.	R. 10,000.
1910 . .	..	..	2·1	21·3	1·5	3·2	26·4	5·7	16·2	23·6
1911 . .	..	..	2·2	22·8	·4	4·8	25·6	5·1	15·5	23·6
1912 . .	..	..	2·1	24·6	2	3·1	26·9	4·6	15·2	23·3
1913 . .	..	..	2·1	26·0	1	2·5	25·7	3·9	13·1	26·4
1914 . .	..	..	2·4	26·8	·1	2·7	26·9	4·0	13·9	23·1
Pre-war average 1910–14	..	..	2·2	24·5	·4	3·2	26·3	4·6	14·7	24·1
1915 . .	..	..	2·6	24·3	·1	2·8	26·0	3·8	15·0	25·4
1916 . .	..	..	3·3	27·8	·1	3·3	30·1	3·4	13·3	18·7
1917 . .	..	..	3·8	26·2	·1	2·9	29·3	2·8	13·0	21·9
1918 . .	3	·2	5·5	27·4	·04	3·5	32·6	2·5	13·8	14·2
1919 . .	·68	1·2	6·0	30·6	·02	3·2	28·6	1·6	9·8	12·2

TABLE 19.—THE GOLD STANDARD RESERVE—AMOUNT, COMPOSITION, AND LOCATION OF THE GOLD STANDARD RESERVE 1901 TO 1919

(In thousands of £ sterling.)

March 31 in each year.	England.				
	Purchase value of sterling securities.	Cash at short notice.	Gold (temporarily forming part of balances of Secretary of State).	Gold deposited at the Bank of England.	Total.
1901 .	..	..	..	..	..
1902 .	3,454	..	..	..	3,454
1903 .	3,810	..	..	..	3,810
1904 .	6,377	..	..	..	6,377
1905 .	8,377	..	..	..	8,377
1906 .	12,165	..	..	..	12,165
1907 .	12,519	..	..	..	12,519
1908 .	13,187	..	1,131	..	14,318
1909 .	7,414	..	470	..	7,884
1910 .	13,219	3,011	..	..	16,230
1911 .	15,849	1,477	..	..	17,326
1912 .	16,748	1,074	..	..	17,822
1913 .	15,946	1,006	..	1,620	18,572
1914 .	17,165	25	..	4,320	21,510
1915 .	12,149	8	..	1,250	13,407
1916 .	16,219	5,792	..	..	22,011
1917 .	25,406	6,001	..	..	31,407
1918 .	28,453	6,000	..	..	34,453
1919 .	29,729	6,016	..	..	35,745

(In thousands of £ sterling.)

March 31 in each year.	India.					Total England and India.
	Coined rupees in India.	Outstanding debt from treasury balances.	Temporary loan to treasury balances.	Gold	Total.	
1901 .	..	1,831	..	1,200	3,031	3,031
1902 .	..	..	..	..	..	3,454
1903 .	..	1	..	..	1	3,811
1904 .	..	167	..	..	167	6,544
1905 .	..	152	..	..	152	8,529
1906 .	..	287	..	..	287	12,452
1907 .	4,000	301	..	22	4,323	16,842
1908 .	4,000	..	..	..	4,000	18,318
1909 .	10,587	..	..	..	10,587	18,471
1910 .	2,534	..	..	..	2,534	18,764
1911 .	1,934	..	..	..	1,934	19,260
1912 .	1,934	..	..	..	1,934	19,756
1913 .	4,000	35	..	..	4,035	22,607
1914 .	4,000	22	..	..	4,022	25,532
1915 .	..	70	7,000	5,238	12,308	25,715
1916 .	..	1 *	4,000 †	239	4,240	26,251
1917 .	..	..	..	103	103	31,510
1918 .	..	..	..	..	..	34,453
1919 .	..	..	..	..	..	35,745

* This amount (£1,326) was paid to the G.S.R. on April 5, 1916.

† Represents the balance of the temporary loan of £7,000,000 taken from the Reserve during the preceding year, £3,000,000 being repaid by the treasury.

TABLE 20.—AMOUNT OF COUNCIL BILLS AND TELEGRAPHIC TRANSFERS DRAWN ON INDIA WITH THE AVERAGE RATE OF EXCHANGE

Year.	Amount.	Average rate.	Year.	Amount.	Average rate.
	£	*d.*		£	*d.*
1862–63 . .	6,641,576	23·875	1891–92 . .	16,093,854	16·733
1863–64 . .	8,979,521	23·875	1892–93 . .	16,532,215	14·984
1864–65 . .	6,789,473	23·875	1893–94 . .	9,530,234	14·546
1865–66 . .	6,966,116	23·750	1894–95 . .	16,905,102	13·100
1866–67 . .	5,067,589	23·000	1895–96 . .	17,664,492	13·638
1867–68 . .	4,137,285	23·125	1896–97 . .	15,526,547	14·450
1868–69 . .	3,705,741	23·125	1897–98 . .	9,506,077	15·406
1869–70 . .	6,980,122	23·250	1898–99 . .	18,692,377	15·978
1870–71 . .	8,443,509	22·375	1899–1900 .	19,067,022	16·067
1871–72 . .	10,310,339	23·125	1900–01 . .	13,300,277	15·973
1872–73 . .	13,939,095	22·750	1901–02 . .	18,539,071	15·987
1873–74 . .	13,285,678	22·351	1902–03 . .	18,499,947	16·002
1874–75 . .	10,841,614	22·221	1903–04 . .	23,859,303	16·049
1875–76 . .	12,389,613	21·645	1904–05 . .	24,425,558	16·045
1876–77 . .	12,695,799	20·491	1905–06 . .	31,566,972	16·042
1877–78 . .	10,134,455	20·790	1906–07 . .	33,432,196	16·084
1878–79 . .	13,948,565	19·761	1907–08 . .	15,307,061	16·029
1879–80 . .	15,261,810	19·961	1908–09 . .	13,915,426	15·964
1880–81 . .	15,239,677	19·956	1909–10 . .	27,416,586	16·041
1881–82 . .	18,412,429	19·895	1910–11 . .	26,463,303	16·060
1882–83 . .	15,120,521	19·525	1911–12 . .	27,058,550	16·083
1883–84 . .	17,599,805	19·536	1912–13 . .	25,759,706	16·058
1884–85 . .	13,758,909	19·308	1913–14 . .	31,200,827	16·070
1885–86 . .	10,292,692	18·254	1914–15 . .	7,748,111	16·004
1886–87 . .	12,136,278	17·441	1915–16 . .	20,354,517	16·087
1887–88 . .	15,358,577	16·899	1916–17 . .	32,998,095	16·148
1888–89 . .	14,262,858	16·379	1917–18 . .	34,880,682	16·532
1889–90 . .	15,474,496	16·566	1918–19 . .	20,946,314	17·544
1890–91 . .	15,969,034	18·089		(Provisional)	

NOTE.—Reverse drafts were as follows:

1908–09 . . . £8,058,000 Bills at 1s. $3\frac{29}{32}$d. the rupee.
1909–10 . . . 156,000 Bills at 1s. $3\frac{29}{32}$d. the rupee.
1914–15 . . . 8,707,000 Bills and Transfers: Bills at 1s. $3\frac{29}{32}$d. the rupee. Transfers at 1s. $3\frac{31}{32}$d. and 1s. $3\frac{29}{32}$d. the rupee.
1915–16 . . . 4,893,000 deferred Transfers at 1s. $3\frac{29}{32}$d. the rupee.
1918–19 . . . 5,315,000 Bills and Transfers: Bills at 1s. $6\frac{1}{32}$d. the rupee. Telegraphic Transfers (immediate) at 1s. $5\frac{29}{32}$d. the rupee.

TABLE 21.—Treasury Balances in India

(March closing balances.)

Year.	In India. Reserve treasuries.	Presidency banks.	District treasuries.	Total.	Equivalent in £ sterling (£1 = R. 15).	In London *	Grand total (in India and in London).
	R. (crores).	R. (crores).	R. (crores).	R. (crores).	£ (millions).	£ (millions).	£ (millions).
1907–08 .	6·0	4·1	9·2	19·3	12·8	4·6	17·4
1908–09 .	4·4	3·5	7·5	15·4	10·2	8·0	18·2
1909–10 .	5·3	4·1	9·0	18·4	12·3	12·8	25·1
1910–11 .	6·7	4·1	9·6	20·4	13·6	16·7	30·3
1911–12 .	5·2	4·5	8·7	18·4	12·3	18·4	30·7
1912–13 .	13·3	5·7	9·9	28·9	19·3	8·8	28·1
1913–14 .	7·4	6·0	10·0	23·4	15·6	8·1	23·7
1914–15 .	6·1	5·9	10·2	22·2	14·8	7·9	22·7
1915–16 .	3·6	5·4	9·0	18·0	12·0	7·0	19·0
1916–17 .	4·6	10·1	8·2	22·9	15·3	5·4	20·7
1917–18 .	2·5	12·9	7·6	23·0	15·3	10·6 †	25·9
1918–19 .	3·6	11·8	10·6	26·0	17·3	14·7	32·0

* Excluding cash held in behalf of the Gold Standard Reserve.
† In addition to the special Reserve of £20,000,000.

TABLE 22.—CAPITAL, RESERVE, DEPOSITS, AND CASH BALANCES OF THE THREE PRESIDENCY BANKS ON DECEMBER 31 EACH YEAR

(In crores of rupees.)

Year.	Paid-up capital.	Reserve and rest.	Total.	Deposits.			Cash Balances.
				Public.	Private.	Total.	
1870 . .	3·4	·3	3·6	5·4	6·4	11·8	10·0
1880 . .	3·5	·6	4·1	2·9	8·5	11·4	7·4
1890 . .	3·5	1·0	4·5	3·6	14·8	18·4	13·0
1900 . .	3·6	2·0	5·6	2·8	12·9	15·7	5·0
1905 . .	3·6	2·6	6·2	3·1	22·3	25·4	8·2
1906 . .	3·6	2·8	6·4	3·1	27·4	30·5	11·0
1907 . .	3·6	2·9	6·5	3·4	28·1	31·5	9·5
1908 . .	3·6	3·1	6·7	3·3	28·6	31·9	10·4
1909 . .	3·6	3·2	6·8	3·2	32·6	35·8	11·7
1910 . .	3·6	3·3	6·9	4·2	32·4	36·6	11·4
1911 . .	3·6	3·4	7·0	4·4	34·2	38·6	13·6
1912 . .	3·7	3·6	7·4	4·3	35·8	40·1	11·8
1913 . .	3·7	3·7	7·5	5·9	36·5	42·4	15·4
1914 . .	3·7	3·9	7·6	5·6	40·1	45·7	20·8
1915 . .	3·7	3·7	7·5	4·9	38·6	43·5	14·7
1916 . .	3·7	3·6	7·4	5·2	44·7	49·9	17·3
1917 . .	3·7	3·7	7·4	7·7	67·8	75·5	33·8
1918 . .	3·7	3·4	7·2	8·7	51·5	60·2	17·1

TABLE 23.—CAPITAL, RESERVE, DEPOSITS, AND CASH BALANCES OF THE EXCHANGE BANKS ON DECEMBER 31 EACH YEAR

(In millions of £ sterling.)

Year.	No. of banks.	Capital and Reserve.			Deposits.		Cash Balances.	
		Paid-up capital.	Reserve and rest.	Total.	Out of India.	In India.	Out of India.	In India.
1870 . .	3	2·0	·2	2·2	2·7	·5	2·6	·6
1880 . .	4	2·5	·5	3·1	7·3	3·0	2·0	1·8
1890 . .	5	6·3	1·7	8·1	30·7	7·5	5·8	3·5
1900 . .	8	11·8	4·0	15·8	54·3	10·5	11·9	2·4
1905 . .	10	15·2	7·2	22·4	94·5	17·0	21·5	3·8
1906 . .	10	15·9	8·4	24·3	104·5	18·1	18·4	5·1
1907 . .	10	16·7	9·3	26·0	94·8	19·2	14·9	5·6
1908 . .	10	16·7	9·1	25·9	103·3	19·5	16·7	3·8
1909 . .	10	19·0	11·2	30·2	116·0	20·3	18·1	4·2
1910 . .	11	21·7	12·6	34·3	134·2	24·8	17·8	4·4
1911 . .	12	22·6	13·0	35·6	157·8	28·2	22·1	4·6
1912 . .	12	23·7	14·0	37·6	172·0	29·5	23·1	6·1
1913 . .	12	23·6	14·2	37·8	181·1	31·0	25·7	5·9
1914 . .	11 *	22·8	14·2	37·0	165·0	30·1	40·7	8·4
1915 . .	11	22·7	14·1	36·8	179·9	33·5	45·1	7·6
1916 . .	10 †	22·8	15·1	37·9	208·2	38·0	41·4	10·1
1917 . .	9 ‡	18·4	14·3	32·7	228·0	53·4	54·8	33·7

* Excluding the Deutsche-Asiatische Bank, which went into liquidation after the outbreak of the war.

† Excluding the Delhi and London Bank, which has been amalgamated with the Alliance Bank of Simla, Ltd. This is an Indian Joint-Stock bank and included in Table 24.

‡ Excluding the Russo-Asiatic Bank, information not being available.

TABLE 24.—CAPITAL, RESERVE, DEPOSITS, AND CASH BALANCES OF PRINCIPAL INDIAN JOINT-STOCK BANKS ON DECEMBER 31 OF EACH YEAR

A.—Banks with Capital and Reserve of R. 5 lakhs and over.

Year.	Number of reporting banks.	Paid-up capital.	Reserve and rest.	Total.	Deposits.	Cash balances.
		R. (lakhs).	R. (lakhs).	R. (lakhs).	R. (lakhs).	R. (lakhs).
1870 . . .	2	9·8	1·8	11·6	13·9	5·1
1880 . . .	3	18·0	3·1	21·1	63·4	16·6
1890 . . .	5	33·5	17·6	51·1	2,70·8	55·8
1900 . . .	9	82·1	45·6	1,27·7	8,07·5	1,19·0
1905 . . .	9	84·6	77·8	1,62·4	11,98 9	1,73·5
1906 . . .	10	1,33·9	56·4	1,90·3	11,55·5	1,49·5
1907 . . .	20	2,29·6	63·3	2,92·9	14,00·3	1,94·4
1908 . . .	14	2,39·7	69·1	3,08·8	16,26·1	2,45·1
1909 . . .	15	2,66·1	88·0	3,54·1	20,49·1	2,79·1
1910 . . .	16	2,75·7	1,00·5	3,76·2	25,65·8	2,80·2
1911 . . .	18	2,85·6	1,26·5	4,12·1	25,29·1	3,62·0
1912 . . .	18	2,91·6	1,34·6	4,26·2	27,26·0	4,00·1
1913 . . .	18	2,31·3	1,33·0	3,64·3	22,59·2	4,00·2
1914 . . .	17	2,51·4	1,41·9	3,93·3	17,10·6	3,53·2
1915 . . .	20	2,81·4	1,56·6	4,38·0	17,87·3	3,99·4
1916 . . .	20	2,87·3	1,73·7	4,61·0	24,71·0	6,03·5
1917 . . .	18 *	3,03·7	1,63·0	4,66·7	31,17·0	7,64·8

B.—Banks with Capital and Reserve between R. 1 lakh and less than R. 5 lakhs.

1913 . . .	23	39·1	11·4	50·5	1,51·1	24·9
1914 . . .	25	49·2	13·0	55·2	1,26·5	28·0
1915 . . .	25	45·4	9·7	55·1	91·4	20·0
1916 . . .	28	51·8	11·5	63·3	1,01·2	16·8
1917 . . .	25 †	44·2	12·2	54·4	99·2	20·4

* The Bank of Rangoon was amalgamated with the Alliance Bank of Simla; the Bank of Upper India and the Standard Bank went into liquidation during the war.

† The Gorakhpur Bank was liquidated during the year. The Vellore Commercia Bank has been transferred to Class *A*. The Wariur Commercial Bank and the Bangalore Mercantile Bank have been excluded as their capital and reserve have fallen below one lakh.

TABLE 25.—AVERAGE BANK RATES OF THE PRESIDENCY BANKS FROM 1870 TO 1918

Year.	Bank of Bengal.			Bank of Bombay.			Bank of Madras.		
	Half year ending June 30.	Half year ending Dec. 31.	Annual average.	Half year ending June 30.	Half year ending Dec. 31.	Annual average.	Half year ending June 30.	Half year ending Dec. 31.	Annual average.
1870 .	5·47	6·00	5·73	5·53	4·97	5·25	4·50	4·50	4·50
1871 .	4·94	4·50	4·72	*	*	5·09	4·91	5·00	4·95
1872 .	6·36	3·56	4·96	*	*	5·10	5·94	6·00	5·97
1873 .	4·15	3·71	3·93	*	*	4·63	6·00	6·19	6·09
1874 .	8·74	3·70	6·22	8·85	4·30	6·57	7·89	7·00	7·44
1875 .	6·48	4·84	5·66	6·55	7·92	7·23	7·00	7·00	7·00
1876 .	7·42	6·11	6·76	8·35	5·62	6·98	6·75	6·00	6·37
1877 .	9·49	7·30	8·40	9·03	7·31	8·17	6·00	6·10	6·05
1878 .	6·53	4·03	5·28	7·18	5·00	6·09	7·00	7 00	7·00
1879 .	7·27	5·42	6·34	8·05	5·29	6·67	7·00	7·00	7·00
1880 .	5·39	3·91	4·65	5·72	4·30	5·01	6·47	4·27	5·37
1881 .	4·86	5·72	5·29	5·40	5·98	5·69	4·67	6·30	5·48
1882 .	8·18	5·02	6·60	8·08	4·13	6·10	8·29	4·13	6·21
1883 .	6·99	6·56	6·78	7·00	6·20	6·66	6·97	7·02	6·99
1884 .	8·81	3·95	6·38	9·03	4·17	6·60	8·42	4·13	6·27
1885 .	6·76	4·00	5·38	5·90	4·00	4·95	5·71	3·23	4·47
1886 .	5·92	6·15	6·04	6·35	6·50	6·42	5·48	5·64	5·56
1887 .	7·48	3·80	5·64	7·78	3·73	5·75	7·92	3·90	5·91
1888 .	5·74	5·18	5·46	5·90	5·51	5·70	5·78	5·44	5·61
1889 .	9·31	4·67	6·99	9·46	4·00	6·73	9·62	4·14	6·88
1890 .	8·26	3·32	5·79	9·21	3·28	6·24	8·14	3·32	5·73
1891 .	3·50	2·62	3·06	3·88	2·23	3·05	3·60	2·25	2·92
1892 .	3·88	3·11	3·50	3·97	3·04	3·50	4·03	3·07	3·50
1893 .	5·68	4·08	4·88	5·97	3·84	4·90	6·19	4·36	5·27
1894 .	7·42	3·36	5·39	7·55	3·46	5·50	6·72	3·31	5·01
1895 .	5·07	3·59	4·33	4·30	3·60	3·95	5·02	3·50	4·26
1896 .	5·77	5·61	5·69	5·85	5·10	5·47	6·00	5·28	5·64
1897 .	9·88	5·97	7·92	10·11	5·64	7·87	9·97	6·00	7·98
1898 .	11·02	5·11	8·06	12·03	4·55	8·29	11·09	4·51	7·80
1899 .	6·34	5·49	5·91	6·34	5·42	5·88	6·27	5·83	6·05
1900 .	6·41	4·27	5·34	6·90	3·79	5·34	7·24	4·50	5·87
1901 .	6·89	4·07	5·48	7·07	3·83	5·45	7·57	4·09	5·83
1902 .	6·17	3·55	4·86	6·25	3·43	4·84	7·00	4·02	5·51
1903 .	6·27	3·49	4·88	6·70	3·48	5·09	7·13	4·27	5·70
1904 .	5·56	4·19	4·87	5·15	3·82	4·48	6·42	4·07	5·24
1905 .	5·56	4·63	5·09	5·77	4·42	5·09	6·04	4·19	5·11
1906 .	6·95	5·88	6·42	7·24	5·28	6·26	7·15	5·04	6·09
1907 .	7·63	4·58	6·10	7·81	4·11	5·96	8·24	4·54	6·39
1908 .	7·42	4·24	5·83	7·84	4·02	5·93	8·38	4·38	6·38
1909 .	6·58	3·91	5·24	6·47	3·82	5·14	7·55	4·41	5·98
1910 .	6·14	4·51	5·33	6·19	4·14	5·16	7·17	4·65	5·91
1911 .	6·66	4·36	5·51	6·55	3·52	5·03	7·59	4·35	5·97
1912 .	6·24	4·59	5·42	6·01	4·10	5·05	7·51	4·59	6·05
1913 .	6·57	5·33	5·95	7·23	4·62	5·92	7·76	5·54	6·65
1914 .	5·94	4·96	5·45	5·52	5·28	5·40	6·63	5·16	5·89
1915 .	5·84	5·54	5·69	5·84	5·31	5·57	5·87	5·54	5·70
1916 .	7·25	6·32	6·78	7·18	5·65	6·41	7·71	6·48	7·09
1917 .	6·69	5·36	6·03	6·70	5·42	6·06	8·00	6·64	7·32
1918 .	5·77	5·30	5·54	5·79	5·29	5·54	6·92	6·47	6·69

* Not available.

TABLE 26.—DIVIDENDS OF BANKS

Banks.	1912.	1913 (pre-war year).	1914.	1915.	1916	1917.	Yield at prices of share at end of December 1917.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent. R. A. P.
Bank of Bengal	14	14	16	16	16	17	5 5 3
„ Bombay	14	14	14½	15	15	17½	5 9 9
„ Madras	12	12	12	12	12	12	4 15 4
Chartered Bank of India, Australia, and China	14	17	14	14	17	19	6 5 4
Eastern Bank	5	6	5	5	6	7	6 3 7
Hong-Kong and Shanghai Banking Corporation	34	34	36	36	38	42	6 9 0
Mercantile Bank of India	8	8	8	10	12	14	6 10 8
National Bank of India	14	16	16	16	16	20	5 12 4
Bank of Rangoon	4½	4½	5	5	5	*	*
„ Baroda	7½	7½	7½	8	9	10	6 5 4
„ India	6	6	6	6½	8	10	6 7 11
„ Mysore	..	..	5	6	8	8	5 11 5
Allahabad Bank	18	18	18	18	18	18	5 15 4
Alliance Bank of Simla	14	14	14	14	16	17	5 4 3
Central Bank of India	6	3	..	4½	6½	7½	6 15 1
Punjab National Bank	10½	11	11	10	10	10	5 8 11

* The Bank of Rangoon was amalgamated with the Alliance Bank of Simla, Ltd., in 1917.

TABLE 27.—TOTAL AMOUNT OF CHEQUES CLEARED FROM CLEARING HOUSES IN EACH YEAR, FROM 1900 TO 1918

(In crores of rupees.)

	Calcutta.	Bombay.	Madras.	Karachi.	Rangoon.	Total.
1900 . . .	139	61	12	..	..	212
1901 . . .	133	65	13	2	..	213
1902 . . .	146	70	13	3	..	232
1903 . . .	142	88	14	3	..	247
1904 . . .	141	95	15	4	..	255
1905 . . .	175	109	16	3	..	303
1906 . . .	206	109	16	4	..	335
1907 . . .	224	127	16	5	56	428
1908 . . .	213	126	18	6	47	410
1909 . . .	198	144	19	7	44	412
1910 . . .	222	167	21	7	48	465
1911 . . .	258	176	21	7	54	516
1912 . . .	288	207	22	12	60	589
1913 . . .	333	219	24	12	62	650
1914 . . .	280	173	22	13	50	538
1915 . . .	323	167	19	13	41	563
1916 . . .	480	241	25	15	48	809
1917 . . .	472	336	23	20	50	901
1918 . . .	744	534	25	24	69	1,396

TABLE 28.—NUMBER OF DEPOSITORS AND AMOUNT OF DEPOSITS IN THE POST OFFICE SAVINGS BANKS, FROM 1899–1900 TO 1917–18

Year.	Number of Depositors.	Deposits (inclusive of interest).	With-drawals.	Balance of deposits (inclusive of interest).	Interest.	Average balance of deposits (inclusive of interest) of each depositor.
	Number (1,000).	R. (1,000).	R. (1,000).	R. (1,000).	R (1,000).	R.
1899–1900 .	786	3,75,97	3,54,13	9,64,64	28,27	123
1900–01 .	816	3,90,65	3,50,97	10,04,33	29,00	123
1901–02 .	867	4,46,38	3,82,49	10,68,21	30,61	123
1902–03 .	922	4,67,11	3,93,16	11,42,15	32,50	124
1903–04 .	988	5,01,26	4,10,05	12,33,37	34,96	125
1904–05 .	1,059	5,55,23	4,47,89	13,40,70	38,12	127
1905–06 .	1,116	5,50,06	4,91,50	13,99,26	39,51	125
1906–07 .	1,190	5,90,13	5,12,69	14,76,70	41,52	124
1907–08 .	1,262	5,94,83	5,53,39	15,18,14	43,18	120
1908–09 .	1,319	5,66,57	5,61,30	15,23,42	43,41	116
1909–10 .	1,379	6,00,21	5,36,90	15,86,72	44,77	115
1910–11 .	1,430	6,50,43	5,45,27	16,91,88	46,23	118
1911–12 .	1,501	8,78,70	6,80,72	18,89,85	50,88	126
1912–13 .	1,567	9,70,57	7,99,28	20,61,14	56,20	132
1913–14 .	1,639	11,60,37	9,04,76	23,16,75	61,91	141
1914–15 .	1,644	9,60,62	17,88,11	14,89,26	53,94	91
1915–16 .	1,660	8,16,32	7,73,46	15,32,12	43,20	92
1916–17 .	1,647	9,38,20	8,10,79	16,59,53	45,47	101
1917–18 .	1,638	10,16,69	10,17,76	16,58,46	44,40	101
1918–19 .	*	13,45,11	11,21,06	18,82,56	46,87	..

* Figure not yet available.

TABLE 29.—WORKING CAPITAL OF CO-OPERATIVE SOCIETIES IN INDIA BY ROVINCES, FOR 1917–18

(In lakhs of rupees.)

Province.	Population.	Share capital paid up.	Loans and deposits held at the end of the year from						Total.	Number of annas per head of population.
			Members.	Societies.	Provincial or central banks.	Government.	Non-members and other sources.	Reserve fund.		
	Millions.									
Madras	41·4	26·1	14·7	10·4	93·4	·1	80·5	9·7	234·9	9
Bombay	18·6	24·3	32·9	6·2	37·7	2·2	52·3	7·3	162·9	14
Bengal	44·6	22·8	15·2	2·3	74·1	·4	65·4	13·1	193·3	7
Bihar and Orissa	34·5	5·4	2·8	3·6	23·2	·4	20·8	4·9	61·1	3
United Provinces	47·2	22·3	1·5	·4	33·9	·2	39·0	14·0	111·3	4
Punjab	19·5	60·4	7·5	7·0	45·5	·6	40·9	35·8	197·7	16
Burma	10·6	23·7	1·6	7·1	55·1	15·3	66·2	14·6	183·6	28
Central Provinces	14·1	18·6	1·9	5·4	75·7	..	40·3	6·7	148·6	17
Assam	6·7	1·2	1·7	·4	2·3	·1	3·8	1·4	10·9	3
Coorg	·2	·6	·2	..	..	..	·2	·3	1·3	10
Ajmer	·5	5·1	..	..	10·3	·1	10·2	1·3	27·0	86
Hyderabad (assigned area)	·1	·1	..	..	..	..	·1	..	·2	3
Total (British India)	..	210·6	80·0	42·8	451·2	19·4	419·7	109·1	13,32·8	..
Mysore	5·8	29·3	7·1	1·7	11·4	·4	11·8	3·3	65·0	18
Baroda	2·0	1·2	2·2	·3	3·2	1·4	3·7	1·6	13·6	11
Hyderabad	13·4	4·4	·1	·1	11·6	2·0	9·6	·8	28·6	3
Total (Native States)	..	34·9	9·4	2·1	26·2	3·8	25·1	5·7	107·2	..
Grand Total	..	245·5	89·4	44·9	477·4	23·2	444·8	114·8	14,40·0	..

APPENDICES

APPENDIX I.—Finance Members of Council

Names.	Dates. From	Dates. To	Viceroys and Governor-Generals.
The Rt. Hon. James Wilson	Nov. 29, 1859	Aug. 11, 1860	Canning (Feb. 29, 1856).
The Rt. Hon. Samuel Laing	Jan. 10, 1861	July 12, 1862	Canning and Elgin (Mar. 12, 1862).
Sir Charles Trevelyan, K.C.B.	Jan. 13, 1863	April 9, 1865	Elgin and Napier (Nov. 21, 1863). Sir William Denison (Dec. 2, 1863). Lawrence (Jan. 12, 1864).
The Rt. Hon. W. N. Massey	April 10, 1865	April 25, 1868	Lawrence.
Sir Richard Temple, K C.S.I.	April 25, 1868	April 8, 1874	Lawrence and Mayo (Jan. 12, 1869). Sir John Strachey (Feb. 9, 1872). Napier (Feb. 23, 1872). Northbrook (May 3, 1872).
* J. F. D. Inglis, C.S I.	April 9, 1874	Nov. 19, 1874	Northbrook.
Sir William Muir, K.C.S.I.	Nov. 20, 1874	Nov. 9, 1876	Northbrook and Lytton (April 12, 1876).
Sir John Strachey, K.C.S.I., C.I.E.	Dec. 23, 1876	Dec. 25, 1880	Lytton and Ripon (June 8, 1880).
* Lt.-Gen. Sir Richard Strachey	July 12, 1878	Jan. 29, 1879	Lytton.
Lord Cromer (Major Evelyn Baring), C.S.I., C.I.E.	Dec. 27, 1880	Aug. 28, 1883	Ripon.
* Sir Theodore Hope, K.C.S.I., C.I.E.	April 15, 1882	Oct. 7, 1883	Ripon.
Sir Auckland Colvin, K.C.M.G., C.I.E.	Oct. 8, 1883	Aug. 9, 1887	Ripon and Dufferin (Dec. 13, 1884).
* Sir James Westland, K.C.S.I.	Aug. 10, 1887	Nov. 21, 1888	Dufferin.
Sir David Barbour, K.C.S.I.	Nov. 22, 1888	Nov. 24, 1893	Dufferin and Lansdowne (Dec. 10, 1888).
Sir James Westland, K.C.S.I.	Nov. 27, 1893	Mar. 28, 1899	Lansdowne and Elgin (Jan. 27, 1894).
Sir Clinton Dawkins, K.C.B.	Mar. 29, 1899	Mar. 30, 1900	Curzon (Jan. 6, 1899).
Sir E. F. G. Law, K.C.M.G.	Mar. 31, 1900	Jan. 9, 1905	Curzon.
* J. F. Finlay, C.S.I.	April 5, 1902	Sept. 25, 1902	Curzon.
Sir E. F. G. Law, K.C.M.G., C.S.I.	Sept. 26, 1902	Jan. 9, 1905	Curzon and Ampthill (April 30, 1904). Curzon (Dec. 13, 1904).
Sir Edward Baker, K.C.S.I.	Jan. 10, 1905	July 5, 1908	Curzon and Minto (Nov. 18, 1905).
J. F. Finlay, C.S.I.	Jan. 1, 1907	Feb. 28, 1908	Minto.
* Sir James Meston, K.C.S.I.	July 5, 1908	Nov. 9, 1908	Minto.
Sir Guy Fleetwood Wilson, G.C.I.E., K.C.B., K.C.M.G.	Nov. 9, 1908	June 29, 1913	Minto and Hardinge (Nov. 23, 1910).
* Sir Robert Gillan, K.C.S.I.	May 20, 1912	Oct. 17, 1912	Hardinge.
Sir Guy Fleetwood Wilson, G.C.I.E., K.C.B., K.C.M.G.	Oct. 18, 1912	June 29, 1913	Hardinge.
Sir W. Meyer, G.C.I.E., K.C.S.I.	June 30, 1913	Nov. 1, 1918	Hardinge and Chelmsford (April 4, 1916).
Sir James Meston, K.C.S.I.	Nov. 2, 1918	May 28, 1919	Chelmsford.
* H. F. Howard,† C.S.I.	May 28, 1919	..	Chelmsford.

* Temporarily.

† During temporary absence from India of Sir James Meston in connection with the Reforms scheme.

APPENDIX II

THE calculation of the circulation of rupees in India during 1912 and 1913 is made as follows:

Let C be the total circulation in any year, I the coinage, and r the annual rate of wastage per rupee.

After one year, out of I coins issued rI will disappear and $(1-r)$I will remain. Similarly at the end of the second year $(1-r)^2$I will remain, and after n years $(1-r)^n$I will remain.

In the year 1912 the circulation (C_{12}) is made up of I_{12} rupees of 1912, $(1-r)I_{11}$ of 1911, $(1-r)^2 I_{10}$ of 1910, and so on. Assuming that all the coins of 1910 were put into circulation in 1912 and denoting the percentage of the coinage of 1910 in the census of 1912 by ${}_{10}S_{12}$, we have

$$C_{12} = \frac{I_{10} \times 100}{{}_{10}S_{12}} (1-r)^2 \quad . \quad . \quad . \quad \text{(i.)}$$

then on the coinages of 1909, 1908, etc.,

$$C_{12} = \frac{I_9 \times 100}{{}_9S_{12}} (1-r)^3 \quad . \quad . \quad . \quad \text{(ii.)}$$

$$C_{12} = \frac{I_8 \times 100}{{}_8S_{12}} (1-r)^4 \quad . \quad . \quad . \quad \text{(iii.)}$$

$$C_{12} = \frac{I_7 \times 100}{{}_7S_{12}} (1-r)^5 \quad . \quad . \quad . \quad \text{(iv.)}$$

$$C_{12} = \frac{I_6 \times 100}{{}_6S_{12}} (1-r)^6, \quad . \quad . \quad . \quad \text{(v.)}$$

the notations having their usual meanings.

The calculations are limited to five sets as otherwise r will introduce large errors.

From these five equations we get

$$\begin{aligned}\log C_{12} = \tfrac{1}{5} \{ &(\log I_{10} \times 100 - \log {}_{10}S_{12}) \\ &(+\log I_9 \times 100 - \log {}_9S_{12}) \\ &(+\log I_8 \times 100 - \log {}_8S_{12}) \\ &(+\log I_7 \times 100 - \log {}_7S_{12}) \\ &(+\log I_6 \times 100 - \log {}_6S_{12}) + 2 \log (1-r) \\ &\quad + 3 \log (1-r) + 4 \log (1-r) + 5 \log (1-r) \\ &\quad + 6 \log (1-r) \}.\end{aligned}$$

$$\log C_{12} = \tfrac{1}{5}\{(\log I_{10} \times 100 + \log I_9 \times 100 + \log I_8 \times 100 + \log I_7 \times 100 + \log I_6 \times 100) - (\log {}_{10}S_{12} + \log_9 S_{12} + \log {}_8S_{12} + \log {}_7S_{12} + \log {}_6S_{12})\} + 4 \log (1 - r).$$

Substituting the values of the percentages from the rupee census table and taking the coinages in crores of rupees we have

$$\begin{aligned}\log C_{12} &= \tfrac{1}{5}\{(2{\cdot}37129 + 2{\cdot}34825 + 2{\cdot}49041 + 3{\cdot}40183 + 3{\cdot}42119) - ({\cdot}03743 + 1{\cdot}98227 + {\cdot}18184 + {\cdot}97220 + 1{\cdot}00087)\} + 4 \log (1 - r)\\ &= \tfrac{1}{5}(14{\cdot}03297 - 2{\cdot}17461) + 4 \log (1 - {\cdot}0628)\\ &= 2{\cdot}37167 + \bar{1}{\cdot}88732 \qquad \because r = {\cdot}0628\ {}^{*}\\ &= 2{\cdot}25899, \quad . \quad . \quad . \quad . \quad . \quad \text{(vi.)}\end{aligned}$$

whence $C_{12} = 182$ crores approximately.

Now to find out the circulation in 1913 (C_{13}):

Now the rates of wastage are different not only with regard to each year but also with regard to each coinage. If $r_1, r_2, r_3, \ldots$ be the rates of disappearance of a particular coinage I at the end of 1st, 2nd, 3rd . . . years of issue, then out of I coins, $r_1 I$ will disappear at the end of the first year, and $I(1 - r_1)$ will remain. At the end of second year $I(1 - r_1)(1 - r_2)$ will remain. Similarly at the end of n years

$I(1 - r_1)(1 - r_2)(1 - r_3) \ldots (1 - r_n)$ will remain, and more generally in the case of a particular coinage I_x of the year x.

$I_x(1 - r_{x\cdot 1})(1 - r_{x\cdot 2}) \ldots (1 - r_{x\cdot n})$ coins will remain at the end of nth year, $r_{x\cdot n}$ being the rate of wastage for the coinages of the year x at the end of the nth year of issue.

If from the census figures it appears that the coins of the year x formed a percentage (say, ${}_xSx + n$) of the total coins examined after n years, then on the assumption that the percentages in the census table represent the percentages of several years' issues then existing, to the total stock of rupees in circulation, the circulation in the year $x + n$ will be

$$C_{x+n} = \frac{I_x(1 - r_{x\cdot 1})(1 - r_{x\cdot 2}) \ldots (1 - r_{x\cdot n})}{{}_xS_{x+n}} \times 100 \quad . \quad \text{(A)}$$

* The rate of wastage has been found by taking the average of 13 figures, one obtained from each year of coinage from 1900 to 1913 (except 1902, there being no coins of this date). The figure obtained from the 1900 coinage is the geometric mean of its decrements from 7·05 in 1903 to 6·3 in 1904, and 6·3 in 1904 to 5·85 in 1905, *i.e.* the figure obtained from the 1900 coinage is $\sqrt{\dfrac{5{\cdot}85}{7{\cdot}05}}$.

Taking the arithmetic average of 13 figures, the rate of wastage has been found to be ·0628, the average, however, representing the value of $(1 - r)$.

But the percentage figures are not quite accurate. So the above formula for circulation will not be regarded as correct, but nevertheless it will represent an estimate of the circulation.

The formulas expressed in equation (A) will be of use in finding the ratio of circulation in any two years. This ratio will be more accurate, as will be seen later, in the case of the circulation in two consecutive years.

Let us select the years 1912 and 1913. We get the following estimates of C_{12} :

$$C_{12}=\frac{I_{11}(1-r_{11\cdot1})\times 100}{{}_{11}S_{12}} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (1)$$

$$=\frac{I_{10}(1-r_{10\cdot1})\,(1-r_{10\cdot2})\times 100}{{}_{10}S_{12}} \quad . \quad . \quad . \quad . \quad . \quad (2)$$

$$=\frac{I_{9}(1-r_{9\cdot1})\,(1-r_{9\cdot2})\,(1-r_{9\cdot3})\times 100}{{}_{9}S_{12}} \quad . \quad . \quad . \quad . \quad (3)$$

$$=\frac{I_{8}(1-r_{8\cdot1})\,(1-r_{8\cdot2})\,(1-r_{8\cdot3})\,(1-r_{8\cdot4})\times 100}{{}_{8}S_{12}} \quad . \quad . \quad (4)$$

$$=\frac{I_{7}(1-r_{7\cdot1})\,(1-r_{7\cdot2})\,(1-r_{7\cdot3})\,(1-r_{7\cdot4})\,(1-r_{7\cdot5})\times 100}{{}_{7}S_{12}} \quad (5)$$

. . . .

and generally

$$C_{12}=\frac{I_{x}(1-r_{x\cdot1})\,(1-r_{x\cdot2})\ .\ .\ .\ (1-r_{x\cdot n})\times 100}{{}_{x}S_{x+n}} \quad . \quad . \quad . \quad (n)$$

And similarly for C_{13} we have the following estimates :

$$C_{13}=\frac{I_{12}(1-r_{12\cdot1})\times 100}{{}_{12}S_{13}} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (1)$$

$$=\frac{I_{11}(1-r_{11\cdot1})\,(1-r_{11\cdot2})\times 100}{{}_{11}S_{13}} \quad . \quad . \quad . \quad . \quad . \quad (2)$$

$$=\frac{I_{10}(1-r_{10\cdot1})\,(1-r_{10\cdot2})\,(1-r_{10\cdot3})\times 100}{{}_{10}S_{13}} \quad . \quad . \quad . \quad (3)$$

$$=\frac{I_{9}(1-r_{9\cdot1})\,(1-r_{9\cdot2})\,(1-r_{9\cdot3})\,(1-r_{9\cdot4})\times 100}{{}_{9}S_{13}} \quad . \quad . \quad (4)$$

$$=\frac{I_{8}(1-r_{8\cdot1})\,(1-r_{8\cdot2})\,(1-r_{8\cdot3})\,(1-r_{8\cdot4})\,(1-r_{8\cdot5})\times 100}{{}_{8}S_{13}} \quad (5)$$

and generally

$$C_{13}=\frac{I_{x'}(1-r_{x'\cdot1})\,(1-r_{x'\cdot2})\,(1-r_{x'\cdot3})\ .\ .\ .\ (1-r_{x'n})\times 100}{{}_{x'}S_{x'+n}} \quad . \quad (n)$$

Since all these n quantities are estimates of circulation it is necessary to arrange each of the expressions for C_{12} and C_{13} in a series of five sets—namely (12345), (23456), (34567), . . . and then to find out the geometric mean in each case. The resulting mean values will eliminate large errors and give fairly accurate estimates of circulation. As an example, take the first series of five sets, viz. (12345) of values of C_{12} and C_{13}. Taking logarithms we have

$$\log C_{12} = \tfrac{1}{5}\{(\log I_{11} \times 100 + \log I_{10} \times 100 + \log I_9 \times 100 + \log I_8 \times 100 + \log I_7 \times 100) - (\log {}_{11}S_{12} + \log {}_{10}S_{12} + \log {}_9S_{12} + \log {}_8S_{12} + \log {}_7S_{12})\} + \tfrac{1}{5}\{(\log (1 - r_{11\cdot1}) \log (1 - r_{10\cdot1}) + \ . \ . \ .).$$

Substituting the values of the percentages from the rupees census table and taking the coinages in crores of rupees we have

$$\log C_{12} = \tfrac{1}{5}(12{\cdot}58689 - {\cdot}37785) + \tfrac{1}{5}\ [\text{fifteen expressions of the type } \log (1 - r)]$$
$$= 2{\cdot}44181 + \tfrac{1}{5}\Sigma \log (1 - r). \qquad . \quad . \quad . \quad . \quad (B)$$

Similarly from the first five equations for C_{13} we get—

$$\log C_{13} = \tfrac{1}{5}(12{\cdot}27915 - 1{\cdot}97340) + \tfrac{1}{5}\ [\text{fifteen expressions of the type } \log (1 - R), \text{ say}]$$
$$= 2{\cdot}46115 + \tfrac{1}{5}\Sigma \log (1 - R). \qquad . \quad . \quad . \quad . \quad (C)$$

From (B) and (C) the ratio between the circulation C_{12} and C_{13} has been taken to determine the circulation in 1913.

Thus

$$\log \frac{C_{13}}{C_{12}} = {\cdot}01934 + \tfrac{1}{5}\{\Sigma \log (1 - R) - \Sigma \log (1 - r)\} \quad . \quad (D)$$

Now each of the series $\Sigma \log (1 - R)$ and $\Sigma \log (1 - r)$ contain fifteen terms. Out of these thirty terms only ten are different and the rest are alike, so that most of the expressions in the series $\Sigma \log (1 - R) - \Sigma \log (1 - r)$ necessarily vanish. If the years had not been consecutive but wide apart all these thirty expressions might have been different, so that the assumption that

$$\Sigma \log (1 - R) - \Sigma \log (1 - r)$$

is negligible in consecutive years involves less error than in the case of years wide apart.

Having assumed this, we obtain from (D)

$$\log C_{13} = \log C_{12} + {\cdot}01934$$
$$= 2{\cdot}25899 + {\cdot}01934$$
$$= 2{\cdot}27833. \qquad . \quad . \quad . \quad . \quad (E)$$

In order to minimise the error still further it is necessary to take ten such ratios from the corresponding series for C_{12} and C_{13} and then from the value of C_{12} as already obtained in (vi.) C_{13} has been determined.

Thus from the second series of five sets (23456) of values of C_{12} we have

$$\log C_{12} = \tfrac{1}{5}(14{\cdot}03297 - 2{\cdot}17460)$$
$$+ \tfrac{1}{5}\ [\text{twenty expressions of the type } \log(1-r_1) \text{ suppcsej}$$
$$= 2{\cdot}37167 + \tfrac{1}{5}\Sigma \log(1-r_1).$$

Similarly from the corresponding series for C_{13}

$$\log C_{13} = 2{\cdot}46334 + \tfrac{1}{5}\Sigma \log(1-R_1),$$

whence

$$\log \frac{C_{13}}{C_{12}} = {\cdot}09167 + \tfrac{1}{5}[\Sigma \log(1-R_1) - \Sigma \log(1-r_1)].$$

There are forty terms in the series $\Sigma \log(1-R_1) - \Sigma \log(1-r_1)$, of which only twelve are different, so that the assumption $\Sigma \log(1-R_1) - \Sigma \log(1-r_1)$ is negligible in this particular ratio involves no large errors. On this assumption, again

$$\begin{aligned}\log C_{13} &= \log C_{12} + {\cdot}09167\\ &= 2{\cdot}25899 + {\cdot}09167\\ &= 2{\cdot}35066. \quad . \quad . \quad . \quad (\text{F})\end{aligned}$$

Proceeding in this way we get

(from E)	$\log C_{13} = 2{\cdot}27833$ . . .	(i.)
(from F)	$\log C_{13} = 2{\cdot}35066$ . . .	(ii.)
	$\log C_{13} = 2{\cdot}25593$ . . .	(iii.)
	$\log C_{13} = 2{\cdot}24377$ . . .	(iv.)
	$\log C_{13} = 2{\cdot}23820$ . . .	(v.)
	$\log C_{13} = 2{\cdot}28402$ . . .	(vi.)
	$\log C_{13} = 2{\cdot}28693$ . . .	(vii.)
	$\log C_{13} = 2{\cdot}28809$ . . .	(viii.)
	$\log C_{13} = 2{\cdot}28485$ . . .	(ix.)
	$\log C_{13} = 2{\cdot}29330$ . . .	(x.)

whence

$$\log C_{13} = 2{\cdot}280408$$
$$\therefore\ C_{13} = 191 \text{ crores.}$$

On an examination of these ten values of $\log C_{13}$ it appears that the second and the fifth values are somewhat doubtful. If these values are discarded altogether, then the average of the remaining eight gives 189 crores, *i.e.* the value of C_{13} is reduced only by 1 per cent. If, on the other hand, discarding these doubtful figures, two other ratios are taken, then the value of C_{13} approaches very closely to 191 crores. It may be observed that the presence of one or two doubtful figures does not in practice materially affect the average results.

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THE END

Printed by R & R. CLARK, LIMITED, *Edinburgh.*