THE RUPEE AND THE GOLD STANDARD

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BY

P. B. JUNNARKAR, M. A.; L. L. B.

READER AND HEAD OF THE DEPARTMENT OF COMMERCE,
DACCA UNIVERSITY.

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Inscribed

TO THE MEMORY

OF

MY BROTHER

LIST OF CHARTS.

* Chart II gives the gold value of the rupee up to 1924; for the year 1925, the gold value of the rupee has been practically identical with the gold par as shewn in Chart I.

THE EXCHANGE VALUE OF THE RUPEE

CHAPTER I.

THE THEORY OF EXCHANGES—THE GOLD PAR OF THE RUPEE—THE GOLD POINTS—THE RATE OF EXCHANGE—THE COURSE OF THE RUPEE—SILVER.

One of the problems in the finance of international trade is 'money-changing,' converting the money of one country into that of another. A bill of exchange comes into use as a means of transferring titles to money without the physical delivery of it. An Indian exporter has exported wheat to an English importer. He will require payment in rupees while his English debtor can offer sterling only. A direct settlement in this case would be difficult. But the difficulty will not be insuperable if there is also an English exporter, say of cotton goods, who will accept sterling only from the Indian importer of cotton goods who however can offer rupees only. It can be so arranged by means of a bill of exchange that the English importer of wheat who has sterling only, will on behalf of the Indian importer of cotton goods pay off in sterling the English exporter who will accept sterling only ; while the Indian importer of cotton goods who can offer rupees only will, on behalf of the English importer of wheat, pay off in rupees the Indian exporter who wants rupees. Thus the Indian exporter of wheat can draw a bill upon his English debtor in sterling and sell it for rupees to the Indian importer who will send it in settlement of his debt to the English exporter of cotton goods who will collect the sterling from the English importer of wheat on whom it is drawn. In this way the claim of the Indian exporter of wheat is set off against the claim of the English exporter of cotton goods.

PREFACE.

The Rupee has presented a riddle as difficult as any that may have been proposed by the Sphinx, having hurried out of existence a number of commissions who have sat and deliberated; and still it requires another commission to give the correct solution. And yet if the problem is approached in its central aspect, it should not be difficult of solution. The difficulty, if any, has arisen from the fact that meaningless emphasis has been laid upon aspects of the problem, which are of minor importance, by a section of the community which happens to be vocal and influential; and the only opposition has come from another section of the community which has made use of political arguments to rebut conclusions which should be tested scientifically. The main issue is thus lost sight of in a maze of discussions which lead nowhere.

It serves little purpose to refer to the sale of reverse councils in 1920 as an 'organised loot,' nor to moot the paradox of the Gold Standard Reserve being without gold, nor is it helpful as an argument to cite the balance held in London as an instance of the Indian resources being exploited by England for her own purpose, if it is realised that the London money market has been lending millions to foreign countries in normal times and could dispense with the assistance of the Indian balances.

On the other hand, the arguments of the exponents of the gold exchange standard as an experimental substitute for the gold standard are more plausible than convincing. If the system is judged by its practical results, India has admittedly paid a heavy price for it. The experience of a generation leaves its working as mysterious as ever, involving costly blunders on the part of those responsible for its management. In spite of this, it has exercised a strange fascination over its supporters who have been wont to regard it as a discovery peculiarly their own in the field of the monetary science. As a new system, it involves definite breaches of established currency principles; yet, with a singular lack of intellectual honesty, the normal consequences that must follow from these and have actually followed are explained away on other grounds. Such a system, inherently unworkable as it should be on account of the fact that it offends against fundamental monetary principles, could possibly be made to work so as to provide a link for an isolated market with the world market. Yet it is forgotten that India occupies an important place in the world market and cannot be dealt with on a level with small countries like the Philippines and the Straits Settlement. In supporting the scheme, vague references are made to Ricardo's plan, though a careful comparison would reveal fundamental divergences between the two. Nor is it of material assistance to cite Plato as an authority, as it would require nothing less than Plato's wisdom to manage it.

It is necessary to get down to the bedrock of facts underneath the superficial generalisations which have hidden the real significance of the Indian currency problem. The final solution depends entirely upon a perfect recognition of these.

The following pages are written in the hope of interesting serious enquirers in a line of investigation which gives some coherence to the confused story of the Indian currency. The examination of the problem has been made rigorously practical, statements made being scrupulously exact stripped of vague generalisations.

The treatment adopted is not historical, a general knowledge, on the part of the reader, of the main events in the evolution of the Indian monetary system, having been assumed. Such a course would have been superfluous in view of a number of books written on these lines, Mr. F. Shirras' standard work being within easy reach of a student of this subject. The historical literature has been further enriched by Dr. Ambedker's brilliant study in a recent volume.

The object of the writer has been to state the problem in its correct perspective in the light of the principles which have been definitely recognised in the monetary science, the experience of the past being dwelt upon in so far as it has lessons for the future. As far as the statement of these principles goes the writer can claim no originality. It would be strange if he did so. For these the reader is referred to standard works on the subject, references in the text being given, wherever possible, to those within immediate access of a student,—the debt in this respect to standard authors being too great to permit a detailed acknowledgement. Specific mention may be made of Kemmerer and Conant who between the two provide the completest statement extant of monetary systems tried in all parts of the world.

The Indian currency question is very complicated and presents a number of aspects. To prevent confusion, each aspect has been separately examined in a chapter devoted to it entirely. This, however, should not be understood to imply that, any particular aspect, thus treated independently, was more important than the rest. The work, to be judged, must be read as a whole.

The first chapter embodies the results of the writer's personal observation during his business experience when he had occasion to watch exchange fluctuations at close quarters. Parts in this chapter may be regarded as mathematical. But no mathematics has been involved beyond the use of the chain rule. No student who has read an elementary book on Foreign Exchanges can escape the knowledge of the chain-rule.

A special chapter has been devoted to Ricardo's Theory of Currency. A usual mistake is to regard Ricardo as a theorist though in the region of currency his thinking was of the most practical kind. His principles, in the present stage of reorganisation of world currency systems, deserve to be better known. Long extracts have been given in the text in order to state some aspects of the currency reform in Ricardo's own words. These will appear to be extraordinarily modern and will be found to have a direct bearing on the present day monetary problems. It will be interesting to observe whether England will *now* have the courage to adopt Ricardo's recommendations when she passes from the present experimental stage to the permanent gold basis. India will be wise, in any case, to follow in the wake of England and not venture on her own account in uncharted waters.

The author desires to record his appreciation of the ability and efficiency with which the manager and the staff of the Associated Printing and Publishing Co. Ltd., have done their work.

Ramna, Dacca.
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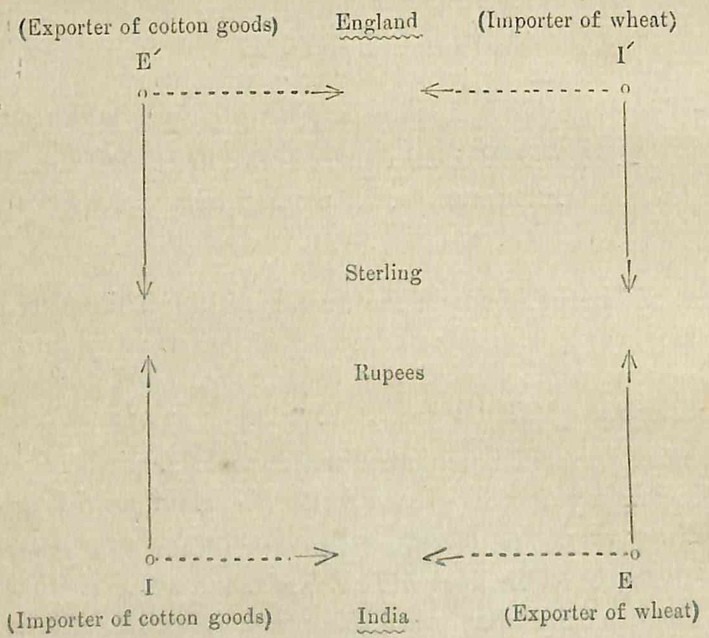
The use of bills of exchange in international trade thus serves a similar purpose to the use of cheques and banking credits and provides a method of charging off obligations of persons in different countries to one another.

The following diagram will make this clearer.



I, on behalf of I′, pays off E in rupees.

I′, on behalf of I, pays off E′ in sterling.

E draws a bill in sterling on I′ and sells it for rupees to I. (E thus practically receives payment in rupees).

I sends the bill to E′ who collects the sterling from I′ on whom the bill is drawn.

The Indian trade balance is usually 'favourable' in the sense that exports exceed imports, and is finally settled principally by means of council bills, and imports of gold and silver. Council bills according to their normal use, practically set off the annual payment in sterling which India has to make in England in connection with the home-charges, against its favourable trade balance. The difference is further adjusted by means of imports of gold and silver the predominating influence in the final settlement being exercised by imports of gold.

THE GOLD PAR OF THE RUPEE.

If 'G' pence is the price of pure gold per oz. in London and 'R' the price in rupees per tola in India, gold purchased with one rupee in India will be exactly equal to the gold purchased with $\frac{3\,G}{8\,R}$ d. in London. This is the gold par of the rupee, giving the par of exchange between the rupee and sterling based on gold. Thus gold purchased with $\frac{3\,G}{8\,R}$ d. in London will realise one rupee in India and conversely gold purchased with one rupee in India will realise $\frac{3\,G}{8\,R}$ d. in London. It is arrived at by means of the following chain rule.

Let the par of exchange between the rupee and sterling based on gold be,

	X d.	=	1	rupee
But	R rupees	=	1	tola (Indian quotation of gold)
	1 tola	=	$\frac{3}{8}$	oz.
	1 oz.	=	G	d (London quotation of gold)

Multiply the two sides.

$$X \times R \times 1 \times 1 = 1 \times 1 \times \frac{3}{8} \times G$$

$$\therefore \quad X = \frac{3\,G}{8\,R}$$

It will be seen that the rule is in the form of a chain of equations, the second term of every equation corresponding to the first term of the succeeding, the last equation completing the 'chain' with the first.

To give an illustration, if the London quotation of gold is £4. 18. per oz. and the Indian quotation is Rs. 27. 9. per tola,[1]

$G = 1176$d. and $R = \frac{441}{16}$ rupees,

Therefore the gold par $= \frac{3\,G}{8\,R}$

$$= \frac{3}{8} \times \frac{1176}{441} \times 16$$

$$= 16 \text{ d.}$$

[1] These were the actual quotations for 3rd January 1922.

In practice the exporters and importers never resort to bullion shipments in settlement of their debts. The operations of bullionists and exchange dealers keep the movement of exchange between the gold points.

Suppose the rate of exchange rises by a small fraction f'—to X+f+f', above the gold import point X+f. Then exchange purchased for one rupee in India will give X+f+f' pence in London. From this gold can be purchased and shipped to India for X+f and will lay down in India the rupee spent in buying exchange ; and the net profit on this transaction will be f'. The result will be imports of gold till the margin of profit becomes negligible. A tendency to a rise of exchange is thus checked by imports of gold.

This is in substance the operation of the bullionist in a rising exchange, though the profit is calculated by him in terms of rupees instead of sterling. The following extracts from the *Capital*, illustrating the domination of the exchange market by bullionists may be cited.

"News had arrived that after a spell of quiescence, bullionists entered the scene. Their operations along with the enquiry for sterling by piecegoods merchants depressed the market."

29th March 1922.

"Except for the rush of bullion exchange last Thursday and Friday the arming of the rupee might have continued to 1/3$\frac{3}{4}$"

25th May 1922.

"The bullion has ceased disturbing the market."

19th July 1922.

"To-day the T.T.'s have dropped to 1/3 $\frac{17}{32}$d. Of course the activity of bullionists was a pronounced factor."

30th Aug. 1922.

"Bombay has had a quieter market, for there were the arrival of bullion and the scarcity of bills depressing the rates."

6th September 1922.

"Bullionists have by kind favour been keeping out of the market a bit, and the banks have been obliged to put up T.T. rates to attract cover remittance."

16th November 1922.

"The dearness of money in India, the sentiment reflected by November's balance of trade of nearly Rs. 6 crores, the quiescence of bullionists, all these must have aided the advance of the rupee."

3rd January 1923.

"The strength of the market in view of bullion demand is encouraging."

17th January 1923.

"Exchange has been on the down grade..................The purchase of bullion has been responsible for the decline." 14th March 1923.

"Exchange has maintained a quiet tone and business remains dull... There is no certainty in the outlook, for everything depends on the activity of bullionists." 21st March 1923.

"Looking back at the course of exchange in February, the wonder is that it kept so well under the staggering arrivals of bullion to the tune of 10. 85 crores." 28th March 1923.

"The tendency of treasure does not encourage the hope of immediate rise in exchange unless a strong spurt in exports sets in."

4th March 1923.

THE RATE OF EXCHANGE.

Bills of exchange, as substitutes for money in the settlement of international balances are subject to the condition governing other commodities—the law of supply and demand. Export bills are bills drawn by the Indian exporters upon their foreign debtors. They need not always be drawn in sterling ; if they are drawn in rupees the rate of conversion into sterling is settled at the time of negotiation. It is sufficient to note that what the exporter sells in his bills is the sterling in which the English debtor will make his payment. Exporters are thus sellers of sterling.[1] Import bills are bills drawn by the English creditors, who, it will be noted, can accept payment in sterling only, upon the Indian importers who consequently are purchasers of sterling. Exchange banks act as intermediaries purchasing sterling from exporters and selling it to importers. When the supply of export bills exceeds the number of import bills, competition among the exporters who are sellers of sterling will oblige them to give more sterling for the rupees they require and the rate of exchange will rise in consequence. Predominance of import bills, on the other hand, indicates that the demand for remittance from importers exceeds the supply of sterling and the fewer the export bills the importers will have to offer more rupees for the

[1] Dollar bills and yen bills are also met with on account of the importance of the American and Japanese trade. But generally London acts as the clearing house of the Indian trade with other countries.

If the chain-rule is used directly,

$$? \text{ d.} = 1 \text{ rupee}$$

$$\frac{441}{16} \text{ rupees} = 1 \text{ tola}$$

$$1 \text{ tola} = \frac{3}{8} \text{ oz.}$$

$$1 \text{ oz.} = 1176 \text{ d.}$$

$$= \frac{3}{8} \times 1176 \times \frac{16}{441} = 16\text{d.}$$

For these quotations of gold, the par of exchange between the rupee and sterling is 1/4, that is, gold purchased with 1/4 in London would realise one rupee in India, while gold purchased with one rupee in India, would realise 1/4 in London.

GOLD POINTS.

This par of exchange or the rate of conversion does not however take account of the cost of shipment of gold. To take the previous illustration if the London quotation of gold is £ 4. 18. per oz, and the Indian quotation Rs. 27.9. per tola, the gold par would be 1/4. Suppose $\frac{1}{8}$ d. represents freight insurance, loss of interest and incidental charges for the shipment of gold worth one rupee.

For these quotations gold purchased with 1/4 in London would realise one rupee in India. If we add $\frac{1}{8}$ d for cost of shipment, the total cost of shipping from London gold which will yield one rupee in India would be $1/4\frac{1}{8}$. This will be the gold import point.

Similarly for these quotations, gold purchased with one rupee in India would realise 1/4 in London. If we deduct $\frac{1}{8}$ d for the cost of shipment, gold purchased with one rupee in India and shipped to London would actually yield $1/3\frac{1}{8}$. This will be the gold export point.

The general formula for the gold par is $\frac{3\,G}{8\,R}$. Let 'f' be a small fraction of a penny for the cost of shipment and other incidental charges. Gold worth $\frac{3\,G}{8\,R}$d in London realises one rupee in India. Adding 'f' for shipping and other charges, $\frac{3\,G}{8\,R} + f$ will be the gold import point ; that is, the total cost of shipping from London gold which will realise one rupee in India is $\frac{3\,G}{8\,R} + f$. Similarly, deducting 'f', $\frac{3\,G}{8\,R} - f$ will be the gold export point ; that is, the net yield of gold purchased with one rupee in India and shipped to London will be $\frac{3\,G}{8\,R} - f$ pence.

The value of 'f' cannot be stated at a definite figure. The shipping and other charges would vary with the magnitude of the operation and according to the facilities which cannot be possessed in an equal degree by all who undertake it. The pre-war freight was about $\frac{1}{2}\%$. Interest for the ocean journey of 22 days, say @ 5%, would be about $\frac{5}{16}\%$. To these must be added other incidental charges, packing, insurance, etc.

It is a fundamental rule of the movement of the exchanges that the rate of exchange must lie between the gold export point and gold import point. It cannot rise above the gold import point. Because if it does, for the same amount of sterling in which his English debtor will make his payment, the Indian exporter can realise more rupees by importing gold than by drawing a bill and negotiating it at that rate. Similarly it cannot fall below the gold export point. Because if it does, for the same amount of rupees the Indian importer can get more sterling to pay off his English creditor, by exporting gold than by buying a bill at this rate.

To express the rule mathematically,

$X + f > \text{Rate of Exchange} > X - f$,

X being the gold par and $X + f$ and $X - f$ the gold points.

sterling they require and consequently the rupee must decline in terms of sterling.

The gold points would mark the limits of this fluctuation and the ruling rate of exchange would be within a fraction of a penny from the gold par.

The rupee-sterling gold par, however, is not a fixed par. The gold par and the rate of exchange, therefore will be found to move together at a small distance from each other.[1]

The spot rates are the only quotations of which intelligible use can be made for the calculation of the gold par. But the real and effective gold par based upon actual conditions must take account of the ocean journey of 22 days and must consequently depend upon forward rates which are different—and in the present unstable condition of the gold market the difference is sometimes considerable[2]—from spot. In a strong and rising gold

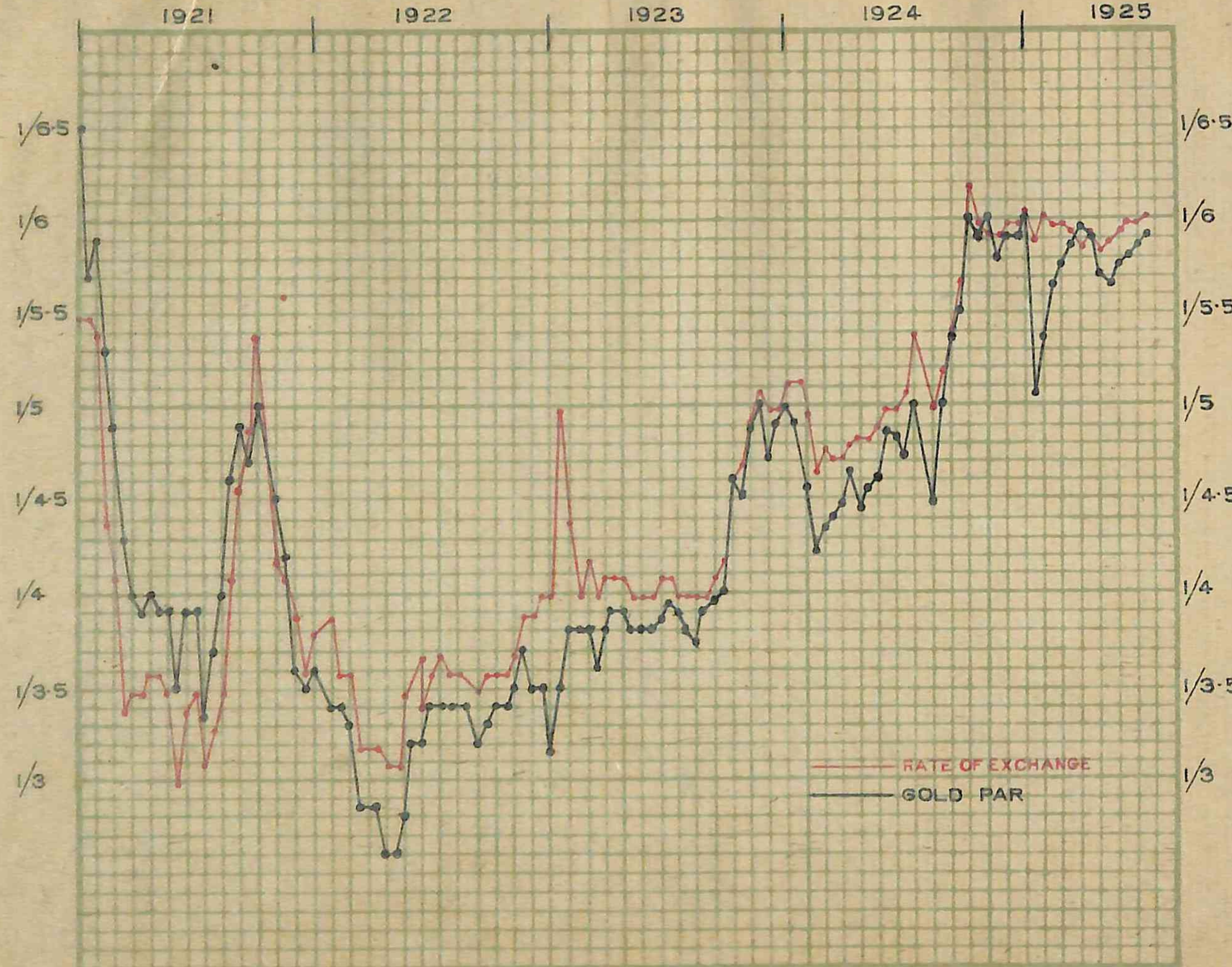
[1] See Chart I, showing the course of the rupee and the gold par, prepared from fortnightly bullion and exchange quotations for the period from the commencement of 1921 to June 1925. The exchange quotations are for demand drafts.

[2] Thus in the month of January 1923, the difference was sometimes one rupee per tola in the market, bringing about a considerable divergence between the ruling rate of exchange and the gold par calculated from spot rates. See Chart I. The following are the quotations on the several dates for gold per tola.

1923	ready	forward
Jan. 10	Rs. 26.5.	Rs. 26.4.
17	26.12	25.12.
24	26.	24.14.
31	26 4.	25.
Feb. 7	25.2.	25.

The strength in the 'ready' quotations was purely speculative owing to the resumption of sales of Council bills by the Secretary of State who who had retired from the market since 1920. The sales might have competed with the imports of gold, reducing their volume. As it was however, gold continued to be imported on a large scale and under the weight of these imports the 'ready' quotations gave way after a temporary strength. For this period the forward rates give the real trend of the gold market. The gold par calculated from spot rates was therefore unreal and diverged to a considerable extent from the rate of exchange.

CHART I


1921
1922
1923
1924
1925
1/6·5
1/6
1/5·5
1/5
1/4·5
1/4
1/3·5
1/3
RATE OF EXCHANGE
GOLD PAR

market the forward rate would be higher than spot. In a weak and falling market on the other hand the forward would be lower than spot.

Though the gold par calculated from spot quotations will not indicate accurately the gold points, it will serve as an excellent index of the movement of exchange. Assuming R (the Indian gold quotation) to be stable, a rise or fall in G the London price of gold will be attended by a rise or fall in the gold par $\left(\frac{3\,G}{8\,R}\right)$ which will be reflected in a rise or fall in the rate of exchange. Assuming G to be stable, a rise in R (which it will be remembered is the denominator of the gold par) will *depress* the gold par and will depress exchange also ; while a decline in R will *raise* the gold par and the rate of exchange also. If may also happen that the effect of a rise or fall in the London price of gold may be neutralized by a simultaneous rise or fall in the Indian price and in this case the gold par will remain materially unaffected.

Thus in the first half of the year 1921, the balance of trade was definitely against India and gold was exported in considerable quantities. The rupee consequently continued to decline. The demand for the export of gold raised its price in the Indian market, (R), which reached the figure of Rs. 33, as. 3 per tola towards the end of July. A good monsoon at this stage engendered a feeling of confidence about the recovery of trade. The demand for the export of gold therefore ceased and the price of gold dropped in August next to Rs. 29 from the high level of the preceding July.

It will be noticed however that the actual recovery of the rupee began in the last week of May. In the first part of the year 1921 the American cross-rate was rising. It rose from 3.54 to $4{\cdot}00\frac{3}{4}$. The London price of gold (G) therefore *declined* from 116/. per oz. to 102/5 per oz. Under the combined depressing effect of the declining London gold market and rising Indian gold market, the gold par moved downward, the rupee keeping company. In the third week of May for a day the rupee was quoted at $1/2\frac{31}{32}$.

Then began a startling recovery, the rupee rising to $1/3\frac{5}{16}$ in a week, though such a rise at that time was not warranted by the actual trade position. The explanation will be found in the sudden collapse of the American cross-rate in the third week of May which dropped from the level of $4{\cdot}00\frac{3}{4}$ which it had reached. It fell to 3·75 at the end of June and kept the level between 3·70 and 3·75 in August and September. The London gold consequently *rose* from 102/5 to 109/3 at the end of June and maintained the level between 110/. and 115/- in August and September following. The gold par consequently moved upward from the third week of May, the rise in London gold (G) more than counterbalancing the rise in Indian gold (R) which occurred till the end of July. After the rise in the Indian gold had ceased about the 29th of July, the rupee advanced rapidly, rising to $1/5\frac{1}{2}$ in September. Such a steep rise, however, was not justified by the real trade position though it had commenced to be just favourable at this time. The rupee therefore sagged down immediately after a temporary buoyancy.

The sag however was more serious than that warranted by the trade position which had an undertone of strength. The explanation will be found in a steady rise of the American cross-rate which began to advance again from the level of 3·71 to which it had receded at the end of September. It rose to 3.91 at the end of October, reaching the hight of 4·40 in February 1922. The London gold therefore again *declined* from the level 110/- and 115/- to a figure as low as 93/10 in February 1922. The gold par consequently moved downward, dragging the rupee with it in spite of its inherent buoyant tendency, and reached the lowest point about the end of February. Since this period the rise has been fairly steady barring occasional lapses, a fall in R being generally more rapid than the fall in G thus bringing about a net upward movement of the gold par.

The inverse connection between the American cross-rate and the London gold quotation is easily shewn. For the same reason for which the Indian exchange keeps step with the rupee-sterling gold par, the American cross-rate must maintain pace with the dollar-sterling gold par. The American dollar is equivalent to 23. 22 grains pure gold. The dollar-sterling gold par will therefore be, using the chain-rule.

? \$	=	1 £ sterling
1 £	=	240 d.
G d.	=	1 oz. pure (London gold quotation)
1 oz.	=	480 grains
23-22gr.	=	1 \$

$$= \frac{240 \times 480}{23.22 \times G} = \frac{4961.24}{G.}$$

This varies inversely as G.

Since the announcement of the Chancellor establishing the gold standard for England the cross-rate has moved up to its pre-war parity and the fluctuations of sterling in terms of gold will cease in the future.

The financial correspondent of the *Statesman*, thus refers to some of the principal factors in a typical review (3rd Feb. 1924) of the exchange and money market.

"It is difficult to express any opinion on probable future movements. The principal factors likely to influence the market would appear to be (1) the continuance or cessation of money stringency (2) the appearance of export bills in any volume (3) the course of London-New York cross-rate, in so far as it affects the import of gold. With any return of money to the ports, concomitant with a rise in the cross-rate, a lower level must be anticipated. Inversely the appearance of cotton or other export bills, with bullion rates still below parity, would probably result in higher exchange, though each point upward necessarily brings bullion nearer parity."

The stringency of the money market is now an important factor in the firming of the rupee and its influence has been noticeable since 1923. It requires explanation.

The following from the *Statesman* (5th June 1925) may be taken as a sample of the foreign exchange quotations in newspapers.

Calcutta, Thursday Evening.

Exchange remains very steady with business dull. Banks on the whole are more inclined to sell than buy.

Sterling rates may be quoted as follows :

Bank selling :

Tele. Transfer	...	1s. $5\frac{31}{32}$d.
On Demand	...	1s. 6d.

Bank buying :

3m/st. Bills	...	1s. $6\frac{9}{32}$d.
4m/st. Bills	...	1s. $6\frac{13}{32}$d.
6m/st. Bills	...	1s. $6\frac{21}{32}$d.
Sight	...	1s. $6\frac{5}{32}$d.
T. T.	...	1s. $6\frac{1}{8}$d.

Other rates are as follows :

	Banks selling 0/d	Banks buying 30. d/st.
France (francs per Rs. 100)	720	—
America (Rs. per $ 100)	275	—
Hongkong (Rs. per $ 100)	157	148
Shanghai (Rs. per taels 100)	214	199
Singapore (Rs. per $ 100)	158	153
Japan (Rs. per yen 100)	113	$109\frac{3}{4}$
Java (guilders per Rs. 100)	$90\frac{1}{4}$	92
Germany (marks per Rs. 100)	152	—
Cable quotations :		
London-New York (dollars per £)		$4{\cdot}85\frac{7}{8}$
London-Paris (francs per £)		98·00
London-Berlin (marks per £)		—

This is fairly clear and very little explanation is needed in regard to the several items.

The Bank buying rate is slightly higher than the corresponding selling rate providing the margin of profit for the banks. The buying rates obviously relate to export bills. The bills against exports are largely drawn at three month's sight and may be either 'clean' or be accompanied by the documents relating to the goods in respect of which they are drawn.

Most of them are drawn on well known firms in England or against credits opened by Banks or financial houses in England and are readily taken up by the discount houses and Banks in London. The system of re-discounting is widely prevalent among the Indian Exchange banks. The London discount rate therefore exerts considerable influence on the rates quoted for time bills. Taking the sight rate as the starting point, the other rates may be explained on this basis as providing the margin for the loss of interest, if the bill is held until maturity.

THE COURSE OF THE RUPEE.

The sterling value of the rupee should be the expression of the comparison of the purchasing power of the rupee with the purchasing power of the sterling. The sterling exchange stating the sterling one could obtain for one rupee in India, would thus reflect changes in the value of sterling as well as changes in the value of the rupee itself.

No useful purpose, however, will be served by an attempt to express arithmetically this comparison of the purchasing power of the two by taking the index-numbers representing the price level in the two countries. Though in the long run some equilibrium between the price-level and exchange rates is bound to be reached, the movement of prices of commodities and services is generally lethargic and does not respond immediately to the daily rumours and passing events, the exchange market however being very sensitive to these.[1]

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[1] A remarkable instance of this may be cited, of recent occurrence in July 1924. The financial correspondent of the Statesman thus commented ;

"Exchange has registered a considerable upward movement during the week though it is difficult to find adequate reason for the rise. Bills in other markets are negligible, while in this market, the quantity offering has been insufficient to account for more than a steady tone. ... ... On the whole it seems reasonable to ascribe the hardening in exchange to the growing feeling that a higher level has to be faced in the future, the initial impetus being given by a mis-interpretation of a speech of the Finance Member in Bombay. An entirely erroneous impression was created in some quarters by an unfortunate error in reports of the speech in the daily press, and it is perhaps advisable to point out this error.

A rigid application of the theory of the purchasing power parity postulates a more immediate correspondence than really exists between the external value of a currency and the relative level of internal prices. While no doubt there are forces which would bring about a rough correlation between the two, the response is particularly slow in a country like India with its detached markets, it being not unusual to find considerable differences prevailing, in the price of the same commodity in different parts. Though India's foreign trade in the absolute is large, it bears a small proportion to the extensive internal trade. In time, of course, any substantial disturbance in the equilibrium of values in the country's export and import trade will make itself felt in local prices but the influences of such disturbances travel very slowly.

In the articles of import or export and closely related articles, the response of prices to exchange movements is quicker and more direct. A few of the more sensitive commodities in which there is keen competition would respond immediately and among these gold is the first to yield, being a commodity of universal demand, easily transferable, and with a highly organised and a keenly competitive world market.

For the purpose of the exchange market, therefore gold provides an immediate basis for gauging the changes in the values of currencies.

Instead of reading as :—'As I say our policy is to reach 1*s*. 4*d*. gold at the earliest possible moment. We have postponed that earliest possible moment during the last winter by creating Rs. 24 crores of emergency currency', the correct phraseology should have been :—'As I say, if the policy had been to reach 1*s*. 4*d*. gold at the earliest possible moment, then we should not have postponed that earliest possible moment during the last winter by creating Rs. 24 crores of an emergency currency.' In other words instead of enunciating a new exchange policy, the Finance Member was in reality merely emphasizing his previously stated course of *laissez faire* pending the return of external influences to some degree of stability. However the mistaken impression created appears to have initiated a rise in exchange, which the realization of the error has not been able to check."

Instances of this type bringing about a fluctuation in exchange rates not warranted by the trade position are not uncommon.

The sterling exchange regarded as the criterion of the progress of the rupee would be illusive inasmuch as it records also changes in the value of sterling itself. The American cross-rate is regarded as the barometer of sterling in the foreign exchange markets. A strong cross-rate means dear sterling and by itself would involve a lower sterling quotation of the rupee. A weak cross-rate means cheap sterling and by itself would mean a higher sterling quotation of the rupee. Following the announcement of the Chancellor in April 1925, the cross-rate has attained the parity at the pre-war level.

The real criterion of the progress of the rupee would be that which gives its internal value, measuring its purchasing power in terms of goods. The most up-to-date index-number is that published by the Labour Gazette for wholesale prices (Bombay) and will indicate the general trend of the price movement.

July 1914 = 100.

		Food	Non-Food	All articles.
Twelve-months Average	1918	171	269	236
" "	1919	202	233	222
" "	1920	206	219	216
" "	1921	193	201	199
" "	1922	186	187	187
" "	1923	179	182	181
" "	1924	173	188	182
Four-monthly "	1925	167	172	171

The war-time 'inflation' had brought about a serious rise of prices compared with the level of July 1914 just preceding the declaration of the war. Since 1919, however, there is a downward movement in the price level, registering the appreciation of the rupee in terms of commodities.

For the purpose of the exchange market, however, the useful criterion would be that which measures the progress of the external value of the rupee in terms of gold, especially in view of the declared policy of seeking a fixity of this value in terms of gold at a suitable level.

The gold value [1] of the rupee, that is, the value of the rupee in terms of gold, may be calculated by seeking a direct equation in terms of gold, one oz. (standard gold) being equal to £3. 17s. $10\frac{1}{2}$d (gold).

Using the chain-rule,

$$
\begin{aligned}
?\ \text{d (gold)} &= 1 \text{ rupee.} \\
R \text{ rupees} &= 1 \text{ tola fine (Indian gold quotation)} \\
1 \text{ tola} &= \frac{3}{8} \text{ oz.} \\
\frac{11}{12} \text{ oz. fine} &= 1 \text{ oz. standard} \\
1 \text{ oz. standard} &= 934{\cdot}5 \text{ d (gold)} \\
&= \frac{3}{8} \times 934{\cdot}5 \times \frac{12}{11} \times \frac{1}{R},
\end{aligned}
$$

[2]

Chart II shews the gold value of the rupee for five years from 1920 to 1924. After a steep rise in 1920, which however did not carry it much beyond 1/5 (gold), there was a precipitate fall, reaching the lowest point in July 1921 under 1s. (gold). In the first week of August 1921, it turned the corner and began its upward ascent. The rise, since, has been fairly continuous till it reached the level of 1/5 (gold) at the end of 1924. For the year 1925 the upward tendency has continued.

Thus the rise in the gold value of the rupee may be said to reflect the general appreciation of the rupee in terms of goods,

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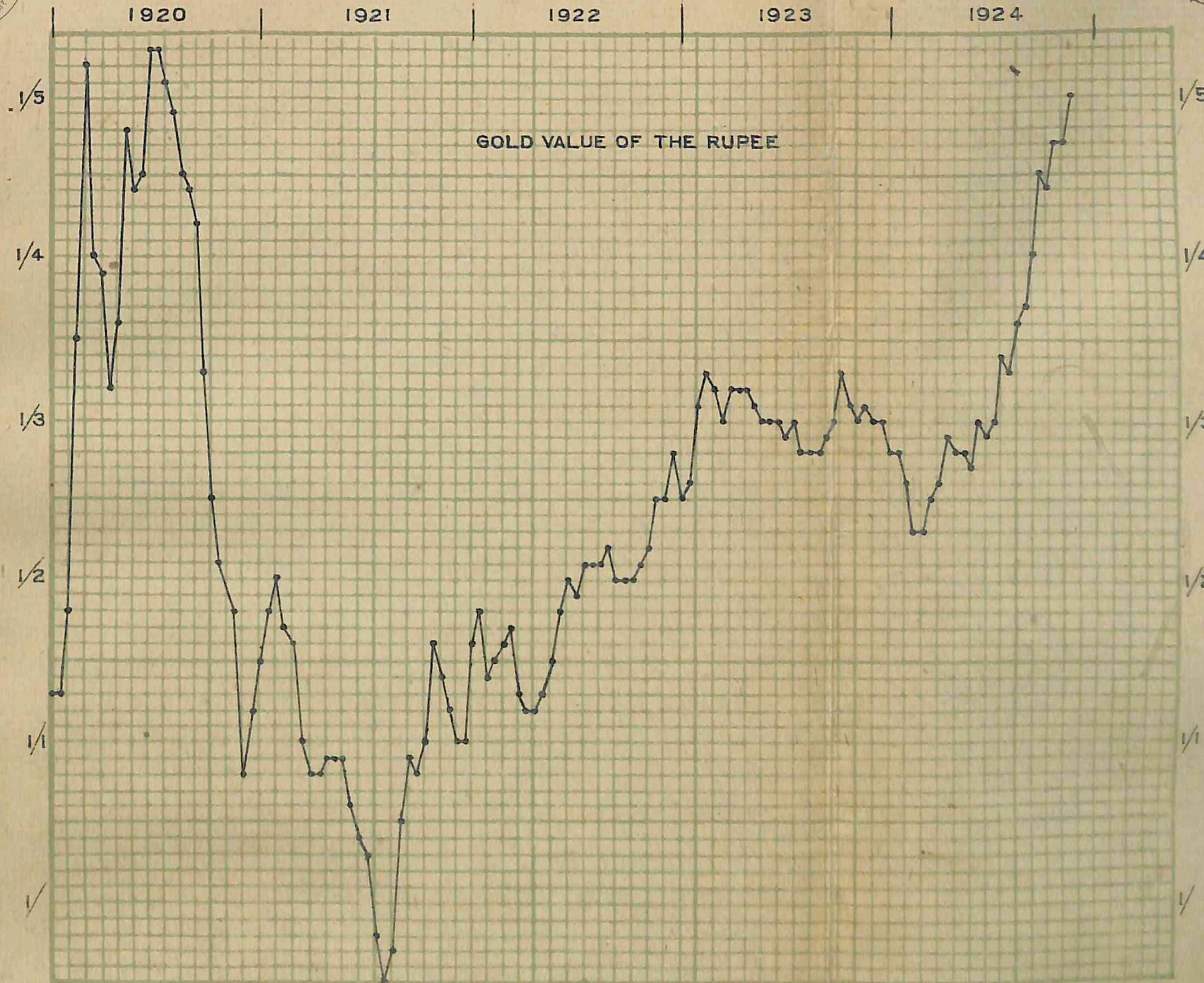
[1] This must be distinguished from the rupee-sterling gold par. The gold value of the rupee gives the quantity of *gold* that a rupee will purchase. On the other hand the rupee-sterling gold par—*i. e.* the par between the rupee and sterling based on gold—gives the *sterling* which will purchase the identical quantity of gold which a rupee will purchase and is practically the sterling equivalent of the gold value of the rupee. Now that the sterling has attained the gold parity, the gold par and the gold value of the rupee merge.

[2] This can be adapted for calculation. Reducing the Indian gold quotation to annas A per tola, $R = \frac{A}{16}$.

$\therefore$ gold value $= \frac{6116{\cdot}727}{A}$

CHART II


1920
1921
1922
1923
1924
GOLD VALUE OF THE RUPEE
1/5
1/4
1/3
1/2
1/1
1/

though there may not be an exact correlation between the two. Probably the rise has been too precipitate.

What has been the main factor bringing about this rise in the value of the rupee whether in terms of gold or goods?

A feature of the Indian finance during the war-time disturbances was the heavy additions to currency which brought about a serious depreciation of the rupee. The much-abused sales of Reverse Councils in 1920 resulted in a substantial withdrawal. From this time however the Government retired from the market with the consequence that further expansion of the currency ceased.

The year 1921 was marked by a trade depression. With reviving trade, however, aud increasing population, more currency is required. If the volume of currency remains stationary in relation to this increasing demand, its value rises.

A direct consequence of the waiting policy of the Government has been to bring about a relative shortage of the currency supply and a serious stringency in the money market.

Though money may not mean the same thing as capital, it is an important form of capital and it is by means of money that loans of capital goods are made. There is, thus, a close connexion between the money supply and the rate of interest.[1]

A monetary strengency of recurring severity has been the dominating feature in the Indian currency situation since 1923.

The position was summarised comprehensively in a memorandum submitted by the Committee of the Bengal Chamber of Commerce to the Government in July 1924.

"As the committee view the situation, it is evident that the country's requirements in the way of currency are not being adequately provided for. At the present time there is nothing in the nature of an automatic system whereby

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[1] The term 'money' is wider and includes bank money and any other instrument which gives command over legal tender notes and coins. The 'currency' supply however practically controls 'money' supply, in India particularly.

the country can obtain currency when it is required. This is a state of affairs which is different from that which prevailed in the past.

"Prior to 1893, currency could be obtained by the country through the medium of an open Mint. Subsequently when the exchange standard was at 1s. 4d., currency was obtainable through the sale, in London by the Secretary of State of Council Bills which were paid for from the Government Reserve Treasuries or from the currency Reserve in India ; and by the importation of sovereigns which could be exchanged at the currency office for Rs. 15 each. Even during the war, although a fixed standard was in abeyance, currency was still available by means of various adjustments of the acquisition rate at which gold could be exchanged for notes. With the fixing of the standard at 2s, the importation of gold or sovereigns for exchange at the currency office into notes, ceased to be a practicable proposition, nor does the sale to-day of Council Bills ordinarily result in an increase of currency, the Reserve Treasuries not being now in existence, it merely involves a transfer of funds from Public Deposits to Other Deposits in the Imperial Bank. In short all the various arrangements whereby the supply of currency was in the past automatically increased have now ceased to function.

"To meet the seasonal demand for currency, the system of an emergency supply which is provided for by section 20 of the Act, has been designed ; and the committee think that it is probably adequate for the purpose in view. It enables the seasonal demand to be supplied, as occasion arises, and as the busy period comes to an end the additional currency is withdrawn from circulation. In existing circumstances, that is in this transitional period, there is no provision for a permanent, or at least quasi-permanent, expansion, as distinguished from the seasonal increase. Herein it seems to the committee lies the weakness of the position. It will not be contested, they think, that every progressive country requires a steady increase, year by year, in its supply of currency and it is this effective demand, which cannot under the existing system be met that has brought about the present situation."

The remedial measures adopted by the Government have been twofold, consisting of the issue of emergency currency against internal trade bills, relaxing the terms of the issue of this currency and making the whole of 12 crores available as soon as the bank rate rises to 7 per cent.; and a further issue of currency against purchases of sterling, raising the permissible limit of investment from 85 crores to 100 crores to enable the Government to meet the demands of commerce to a larger extent.

In spite of these remedial measures, the fundamental shortage of currency supply remains, and will disappear only after an enunciation and adoption of a definite currency policy.

SILVER.

It will be interesting to study the movement of silver which bears a definite relation to the movement of gold.

If S' is the reduced [1] London quotation of fine silver per oz. and R' the reduced [1] Indian quotation per tola, $\frac{3\,S'}{8\,R'}$ will be the silver par. For.

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[1] As a matter of fact the London quotation is per standard oz $\left(\frac{37}{40}\text{fine}\right)$ while the Indian quotation is for 100 tolas $\left(\frac{239}{240}\text{fine}\right)$

$$
\begin{aligned}
?\ \text{d} &= 1 \quad \text{rupee} \\
\text{‘r’ rupees} &= 100 \quad \text{tolas} \quad \text{(bazaar quotation)} \\
1 \text{ tola (bazaar)} &= \frac{239}{240} \text{ tola fine} \\
1 \text{ tola fine} &= \frac{3}{8} \text{ oz fine} \\
\frac{37}{40} \text{ oz fine} &= 1 \text{ oz standard} \\
1 \text{ oz standard} &= \text{s d} \quad \text{(London quotation)} \\
&= \frac{3}{8} \times 100 \times \frac{239}{222} \times \frac{\text{s}}{\text{r}}
\end{aligned}
$$

From this the silver par is directly calculated.

$$
\begin{aligned}
?\ d &= 1 \text{ Rupee} \\
R' \text{ Rupees} &= 1 \text{ tola pure} \\
1 \text{ tola} &= \frac{3}{8} \text{ oz} \\
1 \text{ oz} &= S'd \\
&= \frac{3}{8} \times \frac{S'}{R'}
\end{aligned}
$$

It means that silver purchased with one rupee in India will be exactly equal to silver purchased with $\frac{3}{8}\frac{S'}{R'}$d in London. In the same way in which the gold par gives gold points, the silver par gives silver points, after allowing for risk and cost of shipment a small fraction of penny either way.

In the year 1920, after a steep rise, there was a headlong tumble in the price of silver which brought down with it the silver par. Towards the close of the year 1920 and in the commencement of the year 1921, the gold par was about 1/6.5 ; while the silver par was 1/5. Gold purchased with one rupee in India and shipped to London realised 1/6.5 in England ; while out of this, silver purchased with 1/5 in London and shipped to India laid down one rupee spent upon the purchase of gold ; and the difference of 1·5d represents the gross profit on this double transaction. The net profit after allowing for cost of shipment either way, is, it will be seen, considerable. This explains the heavy exports of gold and the equally heavy imports of silver characteristic of this period.

Normally the gold par and the silver par must remain together. If we equate the gold par and the silver par.

$$\frac{3}{8}\frac{G}{R} = \frac{3}{8}\frac{S'}{R'}$$

$$\therefore \quad \frac{G}{S'} = \frac{R}{R'}$$

This gives the perfectly intelligible result that the ratio of gold and silver in London must be equal to the corresponding ratio in India. A sudden alteration of the ratio at one centre is sure to set up currents of gold and silver in opposite directions till the Indian ratio is restored to the level of the international market ratio.

Thus considering the same instance again, about the 5th January 1921, the London ratio of gold and silver was 30.7 while the Indian ratio was 28. 4. A unit of gold on this day purchased in India with 28. 4 units of silver and exported to London, realised 30.7 units of silver in London. The difference 2.3 units of silver constitutes the profit from exports of gold and imports of silver, allowance being further necessary for the cost of shipment either way. This is the explanation of the outward flow of gold against imports of silver of this period. The years 1892 and 1894 may be cited similarly.[1]

One consequence of such an outward flow of gold is to raise the Indian price of gold which will depress the gold par and hence the rate of exchange also. The years 1892 and 1894 were notable years of weak exchange.

The crisis of the year 1907-08 was practically a silver crisis. It was characterised by heavy imports of silver. The crisis commenced by a sudden drop in silver which began in October 1907 and the exchange weakness declared itself in the first week of November. A financial crisis in America led among other things, to a disturbance in the international silver market. The break in the London price of silver set up a tide of silver towards India. Failure of monsoon in that year had seriously affected the volume of exports. Consequently there was a demand for the export of gold for financing these purchases of silver, which resulted in a weakness of exchange. The exchange recovered directly the gold in the Gold Standard Reserve was released to meet this demand.

The accompanying table will shew the correspondence between the depreciation of silver and the weakness of exchange.

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[1] See the table of imports and exports of merchandise and treasure at the end. Note the imports of silver for 1892-93-94, 1907 08-09, and 1920-21.

The quotations are for or about the end of each fortnight for 1907 and 1908.

	1907			1908		
	Silver London per stand. oz.	Silver India per 100 tolas.	Exchange	Silver London per stand. oz	Silver India per 100 tolas.	Exchange
JAN.	$31\frac{5}{8}$	80. 15.	$1/4\frac{5}{16}$	$25\frac{11}{16}$	65. 11.	$1/3\frac{15}{16}$
	$31\frac{1}{2}$	79. 10.	$1/4\frac{5}{32}$	$25\frac{1}{2}$	67. 2.	$1/3\frac{29}{32}$
FEB.	$31\frac{15}{16}$	80.	$1/4\frac{3}{16}$	$26\frac{5}{16}$	67. 14.	$1/3\frac{15}{16}$
	$32\frac{1}{8}$	80. 1.	$1/4\frac{3}{16}$	$25\frac{1}{2}$	66. 11.	$1/3\frac{15}{16}$
MARCH	$31\frac{7}{16}$	80. 6.	$1/4\frac{5}{32}$	$26\frac{5}{16}$	66. 13.	$1/3\frac{29}{32}$
	$30\frac{13}{16}$	78. .0.	$1/4\frac{3}{16}$	$25\frac{1}{2}$	66. 11.	$1/3\frac{7}{8}$
APRIL	$30\frac{7}{16}$	77. 8.	$1/4\frac{3}{16}$	$25\frac{1}{4}$	66. 5.	$1/3\frac{7}{8}$
	$20\frac{7}{16}$	78. 13.	$1/4\frac{1}{8}$	$24\frac{5}{16}$	64. 8.	$1/3\frac{7}{8}$
MAY	$30\frac{5}{16}$	79. 5	$1/4\frac{1}{16}$	$24\frac{3}{16}$	63. 9.	$1/3\frac{7}{8}$
	$30\frac{15}{16}$	78. 13.	$1/4\frac{3}{12}$	$24\frac{7}{16}$	63. 13	$1/3\frac{7}{8}$
JUNE	$30\frac{3}{4}$	78. 8.	$1/4\frac{1}{8}$	$24\frac{7}{8}$	64. 3.	$1/3\frac{7}{8}$
	31	78. 8.	$1/4\frac{1}{16}$	$24\frac{3}{4}$	64. 1.	$1/3\frac{7}{8}$
JULY	$31\frac{3}{16}$	80.	$1/4\frac{1}{16}$	$24\frac{5}{8}$	63. 15.	$1/3\frac{7}{8}$
	$31\frac{15}{16}$	82. 5.	$1/4\frac{1}{32}$	$24\frac{3}{16}$	62. 13.	$1/3\frac{7}{8}$
AUG.	$31\frac{13}{16}$	81. 9.	$1/4\frac{1}{32}$	$23\frac{11}{16}$	60. 5.	$1/3\frac{7}{8}$
	$31\frac{7}{16}$	79. 9.	$1/3\frac{31}{32}$	$23\frac{5}{8}$	60. 9.	$1/3\frac{29}{32}$
SEPT.	$31\frac{5}{16}$	79. 8.	$1/3\frac{31}{32}$	$24\frac{1}{16}$	61. 1	$1/3\frac{15}{16}$
	$31\frac{3}{16}$	79. 3.	$1/4\frac{1}{16}$	$23\frac{7}{8}$	61. 1.	$1/3\frac{15}{16}$
OCT.	* $29\frac{1}{4}$	71. 14.	$1/3\frac{31}{32}$	$23\frac{11}{16}$	60. 13.	$1/3\frac{29}{32}$
	$27\frac{9}{16}$	70. 2.	1/4	$23\frac{11}{16}$	60 11.	$1/3\frac{27}{32}$
NOV.	$26\frac{15}{16}$	68. 15.	$1/3\frac{15}{16}$	$23\frac{1}{16}$	58. 13.	$1/3\frac{7}{8}$
	$26\frac{11}{16}$	68. 13.	$1/3\frac{27}{32}$	$22\frac{5}{8}$	56 13.	$1/3\frac{29}{32}$
DEC.	25	66. 14.	$1/3\frac{29}{32}$	$22\frac{1}{2}$	57.	$1/3\frac{31}{32}$
	$25\frac{3}{8}$	65. 11.	$1/3\frac{31}{32}$	$22\frac{15}{26}$	58. 3.	$1/3\frac{31}{32}$

It will be observed that fluctuations in the price of silver were normal upto October 1907, when the fall began and was continuous extending over the whole of 1908. The Indian price also gave way under the weight of the imports of silver stimulated by the fall in London price. Reverse drafts sold in the crisis amounted to £8,058,000. Drafts to the extent of £156,000 were also sold in September 1909, unstable conditions prevailing to some extent in this year also. The reverse drafts in the year 1908 practically financed the purchases of silver.

The unreality of the crisis is brought out by the imports of gold which occurred in spite of the trade situation.

THE GOLD EXCHANGE STANDARD.

CHAPTER II.

THE THEORY OF THE GOLD EXCHANGE STANDARD—IS THE RUPEE A TOKEN ?—THE STABILISED SILVER STANDARD —THE CIRCULATION OF GOLD.

I

The gold exchange standard owes its prestige to the idea that it realises Ricardo's theory of a perfect currency, consisting of a cheap circulating medium for use at home, reserving gold for export only,—that so long as gold was available for payment of international debts at an approximately constant rate in terms of the national currency, it was immaterial, nay a distinct advantage that gold did not form the national currency. A cheap local currency artificially maintained at par with the international currency is considered the ideal currency of the future towards which the civilised world is progressing and in the evolution of her gold exchange standard, Mr. Keynes has placed India in the forefront of monetary progress.

Under this system, the mint is closed to the public for coinage and is the monopoly of the Government. Rupees were issued to the public,—to give a bare outline of the system as it worked before the war,—at the rate of fifteen for a sovereign. Gold could be tendered in India or in London ; in the latter case the Secretary of State charged a slight premium in lieu of the cost of shipment. On such tender the Government of India bound themselves to issue rupees. Against a tender of gold in London, the Secretary of State sold council bills which are orders upon the Indian Government to pay in rupees. So far as these were covered by the Home charges, the Indian Government paid out of revenue. For those sold in excess, to meet the trade requirements as it is termed, currency was issued from the Paper

Currency Reserve against the deposit of gold thus tendered, which was primarily earmarked for financing purchases of silver for new coinage. As silver continued low in price, there were large profits from coinage which were utilised for building a special reserve described as the Gold Standard Reserve. In the event of an unfavourable trade balance, this reserve was to be made available by means of sales of Reverse Councils or sterling drafts which are orders upon the Secretary of State to pay in sterling[1] against a tender of rupees in India. The Government thus intercepted and undertook the custody of gold which India normally drew on account of her favourable trade balance, and provided out of it, a reserve which was to be made available when the balance turned against her.

The public opinion in India, however, has demanded the adoption of a gold standard with gold in active circulation. It will be remembered that the Fowler Committee recommended that there should be the normal accompaniment of a gold standard—a gold currency and a gold mint, and emphatically put aside the suggestion that there should be a gold standard without a gold currency.

The buttress of the scheme recommended by the Fowler Committee was to have been twofold—a gold currency and a gold reserve built up out of the profits from coining. The chief criticism of the policy actually pursued was that the recommendations of the Fowler Committee, though formally adopted were never carried out in practice. The Reserve which should have been held in gold in India had been transferred to London and held in sterling securities, and nothing was done to establish an effective gold circulation. After one abortive attempt, the policy of accustoming the people to a gold circulation was abandoned. On the other hand the coining of rupees was prodigiously heavy. The result was that instead of endowing India with a gold currency and a subsidiary token coinage, the vast bulk of the metallic circulation was in rupees. The standard was gold, but the circulating medium was silver.

[1] Sterling was equivalent to gold before the war.

The exponents of the gold exchange system on the other hand have urged that a gold standard need not carry a gold currency with it, that it would not be to India's advantage to encourage an increased use of gold in circulation, that the people of India neither desire nor need any considerable amount of gold for circulation as currency, that the currency most generally suitable for the internal needs of India consists of rupees and notes, that the aim of the Government had always been to give the people the form of currency they need, whether gold rupees or notes, that gold in a reserve was a better safeguard in a crisis than gold in circulation, that so long as gold performed the function of the standard of value, it was immaterial that it was not a medium of exchange and it was an advantage that the active circulation was carried on in a cheaper medium and consisted of token rupees.

The controversy conducted on this ground misses the real issue which is, whether the gold exchange system placed India on the gold basis in the important sense that gold became the standard in terms of which values in India were estimated and compared.

The important point in regard to the standard is not that it is used necessarily in large amounts in actual circulation, but that it defines the value of the other forms of circulation. 'A currency consisting of only the standard metal must inevitably be made up of coins of the metal ; but if these coins are combined in use with other forms of money, the standard coins may be much less in evidence than auxiliary forms. Thus, Great Britain is properly said to be on the gold standard, because values in Great Britain are measured in gold, but the currency in actual use consists largely of silver and paper. The United States are usually said to be on the gold standard, but gold rarely appears in circulation. The state of the silver circulation in the United States is such as to bring their system more properly under the definition of the gold exchange or limping standard, but there is no doubt that gold is the standard by law and the measure of value in fact. In Java, which is also on the limping standard, very little gold currency exists, but values are measured substantially in gold. Thus the standard, in a country of composite forms of money, is not necessarily the only form of currency in use, but is the form to which others are definitely related.'[1]

Apart from the point whether the circulation consisted of gold or rupees, the real question would be,—did the standard become gold and the *value* of the rupee subordinate to it, when the gold exchange standard was inaugurated in the year 1899 ? Was the rupee a 'token' in relation to gold in this sense ?

Tokens are subsidiary coins, their value being based upon the standard and having no existence apart from the standard. The value of a token is due to its having been declared legal tender at a definite relation to the standard.

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[1] Conant, the Principles of Money and Banking 1, 277.

[2] Apart from the standard money, there is generally in all countries a fairly constant demand for tokens in ordinary transactions. So long as the issues of tokens are regulated in relation to this 'demand,' redeemability is not essential to maintain their value with reference to the standard. Usually they occupy a subordinate place in circulation. Under the gold exchange or limping system, however, they play a prominent part. The principles which determine their circulation under the limping system will be clear from the following.

"Under the limping system it is almost inevitably the case that coins of the metal which is denied the privilege of free coinage are of less intrinsic value than their face value. They are kept up to their face value for the purposes of money by various devices of law. The most important element in maintaining their value is the fact that the quantity of such coins is limited. A certain quantity of coins is necessary to carry on the business of a commercial country. The limitation of the quantity of coins which can be produced from a given metal, by denying to the individual owner of bullion its free conversion into coins, operates to confer upon the Government a monopoly of the supply of such coins. The fact that the coins are constantly needed for carrying on the customary transactions of the country creates a demand which absorbs the supply. Another element in giving stability of value to such coins is the fact that they are received at their face value by the Government for public dues. This constitutes a sort of standing offer to treat them as equal to the standard coins and has a powerful influence, where the quantity is not

The rupee as a unit of value, on the other hand, has been independent of gold though both the sovereign and the rupee have been declared legal tender since the inauguration of the gold exchange standard.[1] Far from its purchasing power being derived from its being a fraction of the sovereign, it has quoted the sovereign itself as it quoted other commodities. Instead of enjoying the status of standard money the basis of the value of its token, the sovereign was 'sold' in terms of rupees on a level with goods in general, *throughout* the effective regime of the gold exchange system from 1899 to 1914.

Tokens are a subsidiary currency, needed for ordinary transactions, legal tender for small amounts at a definite relation to the standard. Provided their issues do not exceed the demand, they will pass in circulation at the declared value in terms of the standard.

The rupee currency was never a subsidiary currency. It has been legal tender without limit. Accepting the contention of the exponents of the gold exchange system that its issues have been in accordance with the demand, *the rupee was not related by law to the sovereign in a manner which was even legally effective.*

The status of the rupee and the sovereign is defined by Sec. 11 and 12 of the Indian Coinage Act of 1906. To quote the sections,

SEC. 11. 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 legal tender in payment

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excessive, in keeping them at the value given them by law." Conant; Money and Banking i. 279.

[1] The 'fixed' relationship between the sovereign and the rupee supposed to have been brought about by the initiation of the gold exchange system existed only in the statute-book. Actually the 'price' of the sovereign has ranged from Rs. 15 to Rs. 15. 5 as. See the list of current quotations in the Annual Reports of the Bombay Chamber of Commerce from 1899 to 1914.

or on account at the rate of fifteen[1] rupees for one sovereign ;

Provided that such coins have not been called in by any Proclamation made in pursuance of the Coinage Act of 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.

SEC. 12. The Rupee and half-rupee shall be legal tender in payment or on account ;

Provided that the coin

(a) has not lost weight so as to be more than two per cent. below the standard weight and

(b) has not been defaced.

It will be noted that, Section 12, which makes the rupee a legal tender is altogether silent about its relation to the sovereign ; while Section 11 had the effect of making the sovereign a legal tender at the rate of fifteen rupees.

As the section stood, the tender of a sovereign in payment or on account was a legal tender at the stated rate. But law cannot enforce such a tender. If the holder of a sovereign chooses to use it as bullion, law cannot compel its use as currency.

It is the token whose value has to be declared in terms of the standard. To ensure the circulation of the rupee as a token in relation to gold, the ratio ought to be declared in Section 12 which makes the rupee a legal tender and not Section 11 which makes the sovereign a legal tender. The difference is material. The use of the rupee as bullion would be impossible. It could be used only as currency ; and as currency it would have been a legal tender *only at the prescribed rate.*[2]

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[1] Altered to ten by the Act of 1920. There is an insistent demand by the Indian mercantile community to reverse this legislation and restore the old ratio.

[2] As it was, the sale of the sovereign in terms of rupees simply recorded the fact that the rupee did not circulate at the legal ratio. This will be clear if it is realised that such a sale involves the passing of the

To enable gold to perform the function of the standard of value, it is not essential that it should form part of the active circulation to a considerable extent. But it is very essential that the other forms of currency should be definitely related to it. It is immaterial that under the gold exchange system the bulk of the metallic circulation was in rupees. It is very material, however that by the Indian Coinage Act the rupee has not been definitely and effectively related to gold.

Under the gold exchange system, gold was neither the standard by law nor the measure of value in fact.

II.

What was then the nature of the link which the gold exchange standard appeared to have established with gold ?

A similar plan based upon the Indian model was formulated by the Taft Philippine Commission in 1901, and subsequently became law in the Philippines. The minority report of a Committee of the House of Representatives, which examined the proposals, characterised the majority bill embodying the principle of the gold exchange standard, as providing a "new patent hybrid system" of currency, and of attempting to stabilise the silver standard rather than to provide a gold standard.

Before the year 1893, India had the automatic silver standard. Mints were open to the coinage of silver. The rupee was the unit of value.

There was a serious fall in the gold value of the rupee on account of the depreciation of silver which gave rise to difficulties in the Indian Finance and in a section of the foreign trade. To arrest this fall, mints were closed to the coinage by the public in 1893, in accordance with the recommendation of the Herschell Committee. Hence-forward, the rupee as a silver coin, acquired a value higher than that of its silver contents on the principle of limitation of quantity.

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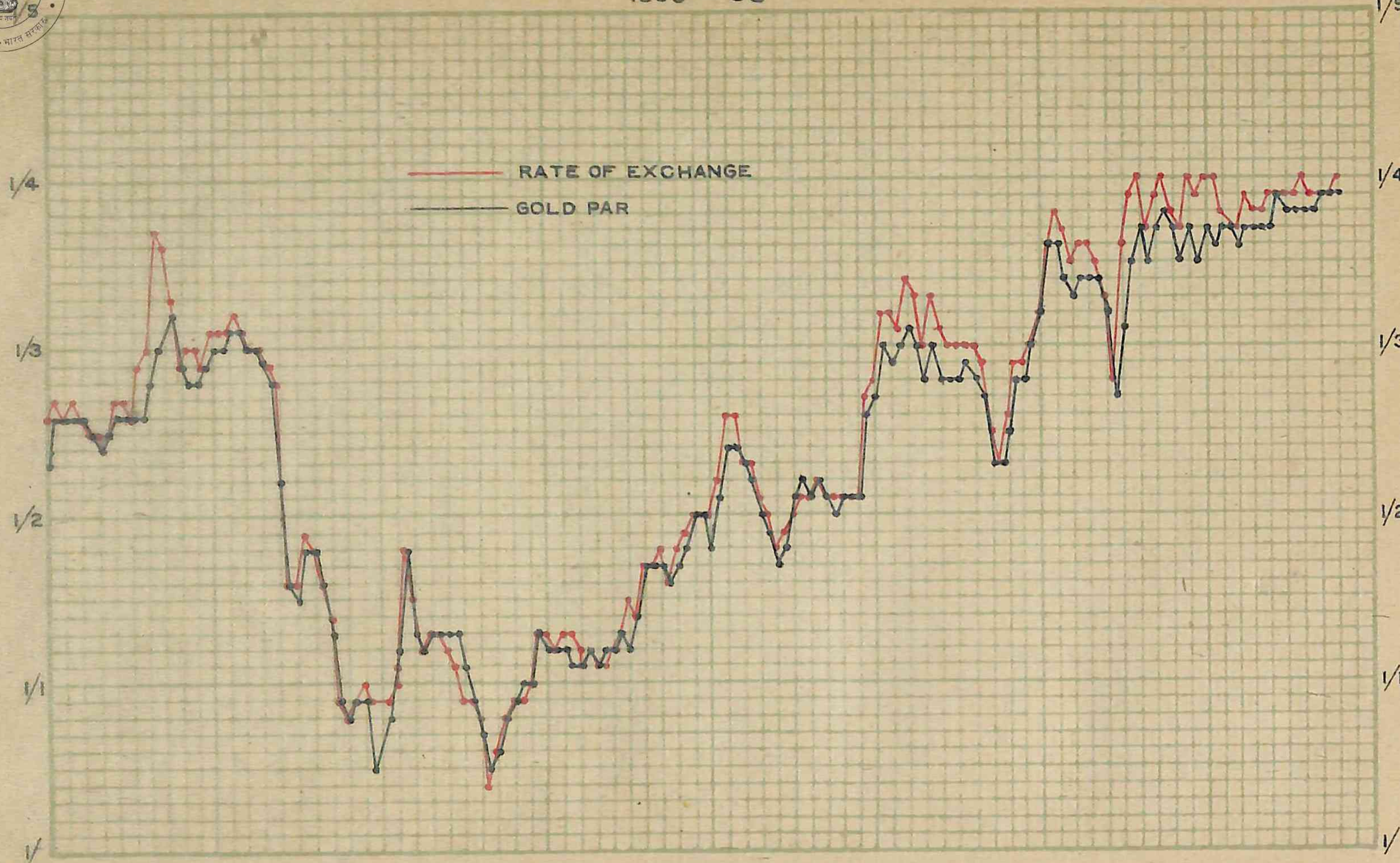
rupee as a coin at a rate different from the legal ratio. The use of the sovereign as bullion may be beyond the power of law to prevent ; but law can make the passing of the rupee as a coin at a rate different from the prescribed ratio illegal.

CHART III

1893 — 98



The operation of this principle rests upon the quantity theory of money. There is an increasing demand for money with the growth of population and trade. To limit the supply of money in relation to this must give it a scarcity value. The plan was variously called "starving the currency," "rarifaction of the currency" and "relative contraction of the currency." The rupee after fluctuations finally rose to 1/4 in terms of gold in 1899.

The unit of value in which prices, wages, and taxes in India have been expressed and debts contracted, was thus slowly raised by a deliberately planned contraction in the relative money supply.[1]

At this stage, the gold exchange standard was inaugurated representing an attempt to stabilise the gold value of the rupee. This, however, did not mean a change in the basis of its goods value. While the general purchasing power of the rupee in terms of goods continued on an independent basis, an attempt was made to *stabilise* only its purchasing power in terms of gold ; this was, in other words, only an attempt to stabilise the price of gold.

To stabilise the gold value of the *rupee* means also the stabilisation of the rupee value of *gold*. Similarly to stabilise the rupee value of gold also involves a stabilisation of the gold value of the rupee. The gold value of the rupee and the rupee value of gold are two aspects of the same relation, each the counterpart of the other.

The gold exchange system set out to stabilise the rupee in terms of gold at the level of $\frac{1}{15}$th of a sovereign or 1/4 gold, one sovereign being 20s gold. The stabilisation of the rupee at 1/4 gold will however follow as a consequence of the stabilisation of *gold* at Rs. 15 for one sovereign (or its equivalent in the Indian market Rs. 23.14 $3\frac{6}{11}$ per tola).

It was by stabilising *gold* at the price of Rs. 15 for one sovereign or Rs. 23.14. $3\frac{6}{11}$ per tola, that the gold exchange system achieved its stabilisation of the rupee at 1/4 gold.

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[1] For the course of the rupee during this period, see chart III.

The central feature of the gold exchange standard was the open and unlimited offer by the Indian Government to issue rupees on deposit of gold at the rate of fifteen rupees for one sovereign. To give this its correct description, it was an open and unlimited offer by the Indian Government to *purchase* gold at the rate of fifteen rupees for one sovereign, (the equivalent for this in the Indian market terms being Rs. 23.14. $3\frac{6}{11}$ per tola).[1]

Such an open and unlimited offer to purchase gold at this price will effectively prevent the price of gold from falling below this level.

For a successful stabilisation, the price must also be prevented from *rising* above this level.

The price may have a tendency to rise in response to an internal demand, or a foreign demand for export of gold when the balance of trade becomes unfavourable to India.

The contingency of the price rising on account of the incidence of the foreign demand for export of gold was provided for by the maintenance of the Gold Standard Reserve. The Government however could not pledge themselves beyond their actual gold resources.

The principal features of the working of the gold exchange system were, thus, a readiness on the part of the Government to purchase gold to unlimited extent and a readiness also to sell gold in certain circumstances to the extent of available resources.

While G the London price of gold was fixed, this stabilisation of R, the Indian price of gold, rendered the gold par $\frac{3}{8}\frac{G}{R}$ stationary, bringing about that fixity of exchange, which was the characteristic of the gold exchange standard. Taking the mint-par, one oz. standard$\left(\frac{11}{12}\text{ fine}\right)$=£3.17.10½, the price of fine

[1] Prior to 1906, rupees were issued both against deposit of sovereigns or fine gold. By a notification of 1906, rupees were issued only against sovereigns. This had only the effect of stimulating the imports of gold in the form of sovereigns. It does not affect the main argument. The Chamberlain commission recommended withdrawal of this notification.

gold per oz. would be £ 4.4. $11\frac{5}{11}$. Taking G, therefore, to be equal to 1019 $\frac{5}{11}$d and R = Rs. 23.14. $3\frac{6}{11}$, $\frac{3\,G}{8\,R}$ = Gold par = 16d.[1]

The fixity of exchange of the gold exchange standard depended upon the fixity of the gold par which again depended upon the stability of R the Indian price of gold. The open and unlimited offer to purchase gold effectively prevented it from going below this level. The weakness of the system lay in its incomplete provision for the contingency of gold rising above this level, as the corresponding offer to issue gold in exchange for rupees was neither open always nor unlimited, the extent to which the foreign demand could be met being limited by the gold resources of the Government. The immediate effect of a rise in the price of gold would be to depress the gold par and exchange with it. The crisis of 1907-08 provides an illustration.

The only essential features of the gold exchange system under the conditions provided, were that the Government was prepared to purchase gold to an unlimited extent and was also prepared to sell gold in certain circumstances to the extent of available resources. For the working of the system, it was not necessary that gold should be even declared legal tender. For practical purposes, section 11 of the Coinage Act need never have been enacted.[2]

[1] The Bank of England, however, issued currency at the rate of £ 3.17s. 9d. per standard oz. of gold, while the Indian price of gold actually ranged near Rs. 24 per tola. The real gold par was therefore nearer 1/3.9 than 1/4, which was recognised officially. This explains the large private imports of gold which took place in spite of the competitive offers of bills by the Secretary of State. The real gold import point was lower than the official gold import point which was calculated on the basis of the gold par at 1/4.

[2] Thus the Currency Committee which introduced the system in the Straits Settlement, remarked, when the gold standard (sic) is established, it would not be indispensable that any gold coins should be made legal tender in the colony and the states. But the Government should be prepared not only to give in exchange for a sovereign such a number

III

If this is a correct description of the system, it will be useful to examine, in relation to it, other important features which accompanied the working of the gold exchange system.

A commodity for which there is a buyer to an unlimited extent for a fixed price, would usually command a higher price from the general purchaser. The natural consequence of this open and unlimited offer to purchase gold at the fixed price of Rs. 23.14. $3\frac{6}{11}$ per tola, was that the market price of gold stood a little higher and in fact usually ranged between Rs. 24 and Rs. 24.2. per tola. This 'premium' was shared by the sovereign, which, bearing as it did, a certificate of a certain weight and fineness of unimpeachable authority, commanded many times a higher premium and was quoted separately.[1]

On the other hand any large supplies of gold which arrived in the market and which, if they had remained in the market,

of dollars as are hereinafter declared equivalent to a sovereign, but also to give sovereigns in exchange for dollars at the same rate so long as gold is available, or to give bills on the Crown agents in London based on the fixed rate of exchange."

[1] For the bullion quotations, see the Annual Reports of the Bombay Chamber of Commerce. The following for the year 1902 may be taken as a type.

Date.	Gold.	Sovereign.	Date.	Gold.	Sovereign.	Date.	Gold.	Sovereign.
Jan. 3	24.1	15	May 9	24.2.6	15.3	Spt. 12	24.1.6	15.3.6
„ 17	24.·.6	15	„ 23	24.3	15.3.6	„ 26	24.1.6	15.3.6
„ 31	24.	15	June 6	24.3	15.3.6	Oct. 10	24.1.6	15.3.6
Feb. 14	24.1	15	„ 20	24.2.6	15.4.6	„ 24	24.1.6	15.3 6
„ 28	24.1.6	15	July 4	24.2	15.4.6	Nov. 7	24.1.6	15 3.6
Mar. 14	24.1.6	15.2.6	„ 18	24.2	15 4	„ 21	24 1	15.3
„ 27	24.1.6	15.3	Aug. 1	24.2	15.3.6	Dec. 5	24.·.6	15.3
Apr. 11	24 2	15.2.6	„ 15	24.2	15.3.6	„ 19	24.·.6	15 2.6
„ 25	24.2	15.2.6	„ 29	24.2	15.3.6	„ 30	24.·.6	15.2 6

might have depressed the price of gold below the level of Rs. 23.14. $3\frac{6}{11}$ per tola, were promptly tendered to the Government by the holders and exchanged for rupees at the fixed rate.

This is the meaning of the embarrassing receipts of gold which depleted the stock of rupees of the Government and thus nearly threatened the equilibrium of the gold exchange standard in the first year of its existence. The crisis primarily arose on account of an inadequate provision of rupees by the Government, who assumed that the inauguration of the gold standard which India was supposed to have obtained would involve principally a demand for gold as a circulating medium. Under the actual circumstances, however, there was a demand for rupees. The drain on rupee reserves became so great, that the Government had to make an active effort 'to induce the people of India to use sovereigns as a medium of circulation.' 'The results were unsatisfactory. Many of the gold coins soon made their way back into Government's hands, and the Government found themselves unable to cash currency notes in rupees not only at the Cawnpore and other treasuries in the North-West Provinces (where though not legally bound to do so they had been in the habit of encashing notes) but on the 11th April 1900 at the Head Office in Calcutta itself. Notes became subject to a discount of as much as $\frac{7}{16}$th per cent. in Cawnpore and there was serious danger of a failure of confidence in the paper currency. Meanwhile sovereigns *went to a discount* of as much as 4 annas in many places.'[1]

From this, the Chamberlain Commission drew the conclusion that India had indicated a decided preference for the rupee and it was unwise to force a gold currency upon people who did not want it. There can be no doubt about the sincerity of the attempt of the Indian Government to force sovereigns into circulation. That it failed was no more than a normal consequence of the functioning of the gold exchange standard, the net result of its working being that gold, while it remained in the market, should usually command a slight premium thus making its use

[1] The Chamberlain Report, para 25.

as currency impossible and at the least threat to this premium involving the possibility of a discount must be at once exchanged for rupees. Under such conditions the use of gold as currency was impossible and if it sometimes circulated as currency, it was an accident.

There is a general impression that the only hindrance to the establishment of a full gold standard and the circulation of gold as currency was the absence of an Indian mint for gold coinage.

Under the conditions provided, however, by the gold exchange system, mere facilities for coinage could not have brought gold into circulation. If it were only possible, India had imported enough coined gold to support such a circulation ; and in fact in the latter years especially after the notification of the Indian Government in 1906 expressing their readiness to issue rupees in exchange for sovereigns only, a considerable part of imported gold was in the form of sovereigns. Apart from imports of gold bullion, the absorption of sovereigns by the public during the 12 years ending 31st March 1913, was about £60 millions, an amount little less in value than the new coinage of rupees during the same period, the absorption between 1st April 1909 and 31st March 1913 above being close on £30 millions.

FIXITY OF EXCHANGE.

CHAPTER III.

THE FIXITY OF EXCHANGE—THE POINT OF VIEW OF THE GOVERNMENT—OF THE TRADE—A STABLE PRICE-LEVEL AS AGAINST A STABLE EXCHANGE—THE RISE OF PRICES DURING THE WORKING OF THE GOLD EXCHANGE STANDARD.

The gold exchange standard was not a gold standard in the sense of gold being the basis of the value of the rupee. As a unit of value, the rupee retained an independent status, being both the standard by law and the measure of value in fact. The quasi-silver system introduced the principle of Government coinage which was no less lavish than under the system of free coinage which obtained before 1893. Both made silver coins the foundation of the monetary system.

The 'fluctuating' silver standard which was discarded in 1893, was a 'fluctuating' one with reference to the exchange value of the rupee only and not with reference to its goods value. The 'stabilised' silver standard which replaced it meant this 'stabilisation' with reference to its exchange value only but not with reference to its goods value. The fixity of exchange is the characteristic of the quasi-silver system which was substituted in the place of the old 'fluctuating' silver standard.

This fixity is its principal recommendation to the Indian Government and a section of the trade.

The most important influence which led to the closing of mints to the coinage of silver and the discontinuance of the simple silver standard was the financial burden which this system imposed upon the Indian revenue. Every year India has to make heavy payments in England, the 'home charges' as they are called. They are on a sterling basis and cover such items as interest on debt, annuities, salaries, pensions, and allowances of employees in the Indian service. Just before the war, the total of this sterling expenditure was about £20 millions. The Indian revenue has to find the equivalent number of rupees at the rate at which the Indian Government can effect the remittance. A difference of even a penny between the rate anticipated in the budget and the rate actually realised must produce a big deficit or surplus.

The continued fall in the value of silver since 1873, made the task of avoiding a deficit extremely difficult for the finance member. The financial burden and uncertainties which such a situation created, influenced the Herschell committee at whose instance the simple silver standard was abandoned. "It is certain, however," said the committee,[1] "that India had actually to remit in 1892-93 upwards of Rx. 8,700,000 more than if the exchange had been at its former point. At an estimated exchange 1s 4d per rupee for the past year, a surplus of revenue over expenditure was shewn of Rx. 146,600; the exchange having fallen to an average of rather less than 1s 3d, this surplus has been converted into an estimated deficit of Rx. 1,081,900, notwithstanding the improvement of the revenue by Rx. 1,653,300 over the budget estimate. Nor is this all. The Government are compelled to contemplate a further fall the effect of which cannot be forecast."

The fixity of exchange brought about by the gold exchange standard, constitutes the principal ground of preference of the Indian Government for the system. It reduced the incidence of the sterling charge upon the Indian revenue to a definite figure. While the system was thus beneficial to the Government, it also appealed to a section of the trade whose interests, it was feared, were adversely affected by the continued fall in silver. Thus the importers, who based their operations upon a particular rate, had to find more rupees for the same payment in sterling which they had to make, corresponding to the rate actually realised by them on account of the fall of the rupee in the meanwhile. This, however, applied obviously to uncovered transactions only. Such a fall, moreover, was favourable to the export trade as the exporter obtained more rupees for the same claim in sterling.

[1] The Report—para 3,4,5. Rx means 10 Rs.

Trade therefore, was not unanimous as to the advisability of the step when the mints were finally closed in 1893. Thus the President of the Bombay Chamber of Commerce declared,[1] "in framing their proposals, the Government of India seem to have had two objects in view—first to satisfy the demands of that portion of the mercantile community who assured them that the commerce of the country was ruinously affected by the fluctuations in the sterling value of the rupee and secondly to save themselves from the financial ruin which they foresaw impending over them, when the expected repeal of the Sherman Act in America should take place. Had the Bill been brought forward solely in the interests of trade, it would have provoked, no doubt, the most determined opposition on the part of many of us, for we are not all of the same mind as those representatives of commerce to whose counsels the Government have hearkened."

The necessity of a fixed exchange for the prosperity of commerce is therefore not obvious. "Our conclusion," said the Smith Committee, "after considering the views put before us, is that for the current operations of trade, stability is an important facility rather than an essential condition. There are many instances, including that of India herself before the closing of the mints which shew that trade has flourished and can flourish, with a fluctuating exchange. The conditions are somewhat more speculative, but the difficulties which may arise are not insuperable, and the banks are not slow to supply machinery which enables the merchant to cover his risks."[2]

In a speech to the Associated Chambers of Commerce on 3rd Dec. 1923, Sir Basil Blackett argued that the gold exchange system was in the interests of India as a whole. 'It is my business as Finance Member to put the interests of India first, and I unhesitatingly do so. But in this matter, the idea that there is a conflict of interests is moonshine. There is plenty of room for difference of opinion, but there cannot be any difference of motive.

[1] At the annual meeting of the Chamber. See the Report of the Chamber for this year.

[2] The Report, para 34.

Whether we are exporters or importers or merely in the Finance Department, we can afford to approach the subject from the same angle, with the same ends in view, and we cannot afford to do anything else.'

But the interests of exporters or importers or the interests of the Finance Department do not represent the real interests of India, which demand stability in the purchasing power of the rupee in goods rather than the stability of exchange. The point of view from which the problem must be studied is therefore the stability of 'the internal value' of the rupee rather than its 'external value,' and is the one point of view which has been ignored in all systematic examinations of the subject.

Whatever may be the difficulties of the foreign trade or the Finance Department due to the 'fall' of the rupee, that the automatic silver standard before the year 1893 secured the primary object of a currency system which should ensure a stable price level, is established beyond dispute by the course of the index number of commodity prices. That the difficulties of the foreign trade have been exaggerated will not be seriously questioned. On the other hand there can be no doubt that the falling exchange exercised a healthy check on the growth of the sterling debt.

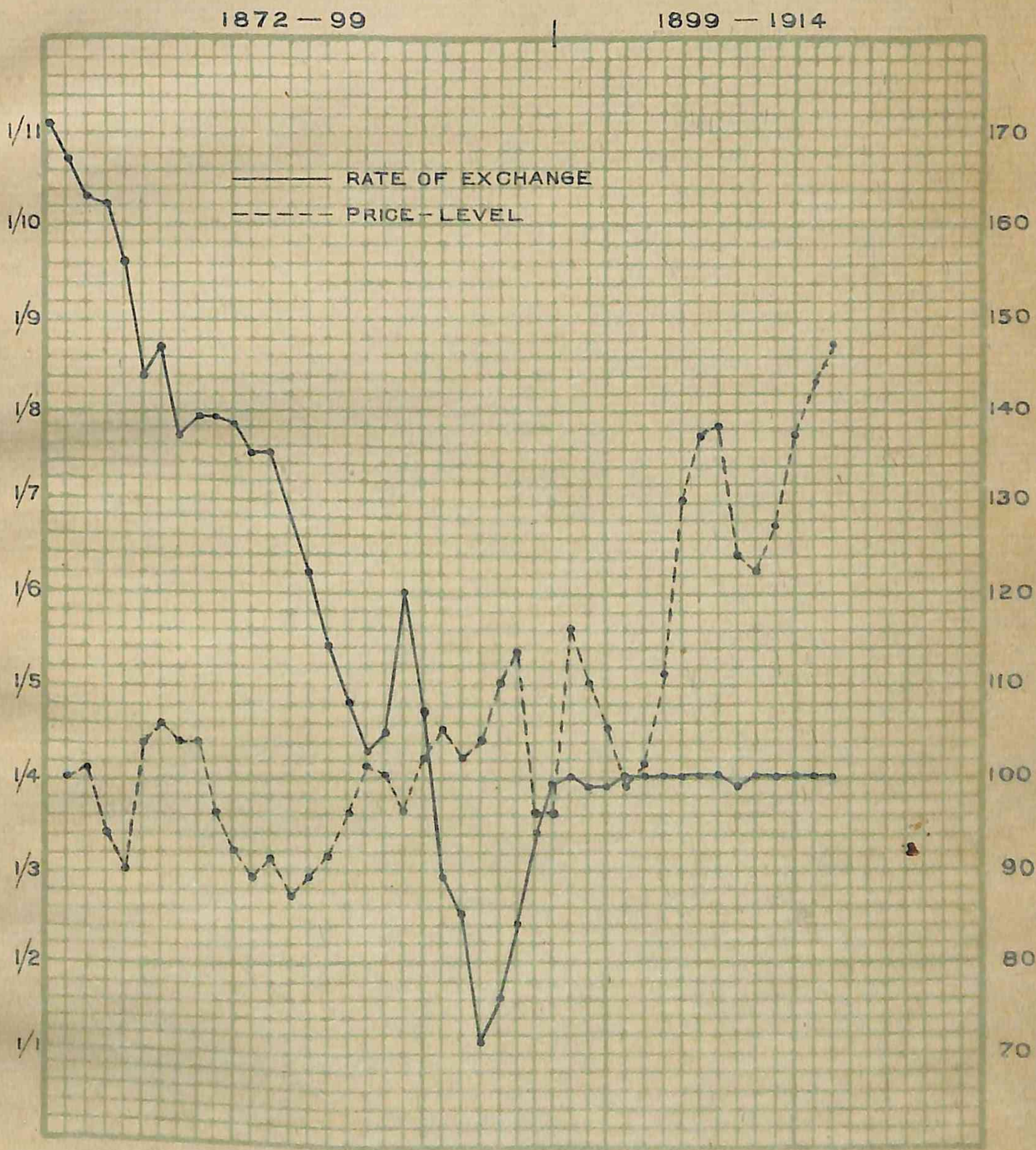
The result however of 'fixing' the value of the rupee in terms of gold was to 'unfix' its value in terms of goods.[1]

The practically continuous rise of prices during the gold exchange standard was a subject of frequent comment. The rise was so significant that an enquiry had to be made regarding its cause. By the publicists it was usually set down to the heavy coinage of rupees which was the feature of the gold exchange standard. That it had some direct connection with the working of the gold exchange standard was beyond doubt.

A rise of prices may be usually traced to two causes (1) to the insufficiency of the supply of commodities in comparison with the demand both internal and foreign, (2) to the depreciation

[1] See Chart IV. The movement of the rupee in terms of gold and goods is practically reversed if the period after 1899 is compared with the preceding period.

CHART IV


1872 — 99
1899 — 1914
RATE OF EXCHANGE
PRICE-LEVEL
1/11
1/10
1/9
1/8
1/7
1/6
1/5
1/4
1/3
1/2
1/1
170
160
150
140
130
120
110
100
90
80
70

of the circulating medium as in the case of inconvertible currency.

The influence of the second factor on account of the inconvertibility of the rupee has no doubt contributed to the rise of prices. But this upward movement has been further stimulated considerably by the operation of the gold exchange system in reference to its tendency to promote the incidence of the foreign demand upon Indian commodities.

The fixity of exchange of the gold exchange system constitutes a paralysis of an important function of a free and healthy exchange, of regulating the flow of exports and imports. A falling exchange checks imports and stimulates exports. A rising exchange on the other hand impedes exports and stimulates imports. This normal *annual* movement, *in both directions*, in all free exchanges performs the important function of providing a constant check to a tendency to excess in either exports or imports. The beneficent automatic action is as real as it is silent.

While a country may not import more than what it can afford, it also may not export more than what it can spare, particularly in the case of a country like India, a large part of whose exports consists of foodgrains and raw materials. Her exports must be determined by what she can spare. A free exchange rises with the rising tide of exports exercising a controlling influence on its volume. This rise in the height of the export season used to occur *every year* in spite of the progressive depreciation[1] of the rupee year by year under the automatic silver standard before the year 1893. The fixity of exchange brought about by the gold exchange standard removed this natural check which the annual rise in the height of the export season placed upon a tendency to excess in exports.

[1] The reason why the Herschell Committee could not find striking evidence, in the growth of the export trade under the automatic silver standard, of the effect of the stimulus which a falling exchange ought to exercise apparently on this trade, was that they failed to take account of this *annual* upward movement which used to occur in spite of the progressive depreciation year by year. See the Report, para 27.

One of the notable features of the working of the gold exchange standard was the remarkable growth of the export trade which accompanied it. It will be seen that between 1873-74 and 1892-93, exports rose from 55 crores to 106 crores, in 1898-99 rose to 112 crores, while between 1899-1900 and 1913-14 the rise was from 109 crores to 249 crores. Thus when exchange was free, it took twenty-six years for the exports, just to reach double the figure ; while during the fifteen years of the working of the gold exchange system, exports more than doubled themselves. The average annual increase for the period from 1873-74 to 1898-99 works out at 2 crores ; and a similar average for the period of the gold exchange standard is 9 crores. The remarkable prosperity of the export trade is brought out by the following figures.[1]

		1899-1900 (mil. £)	1906-1907 (mil. £)	1913-1914 (mil. £)
I.	Raw materials ...	24.0	49.8	74.2
II.	Foodstuffs ...	18.1	24.6	37.2
III.	Manufactured articles ...	14	21.4	29.7
IV.	Miscellaneous ...	6.1	8.5	3.5

The preponderence of raw materials and foodstuffs needs scarcely any comment.

The true significance of the rise of prices under the gold exchange system in relation to the abnormal growth of the export trade involving an undue incidence of the foreign demand upon the supplies of Indian commodities, will be clear by studying the index-number of the prices of the exported articles in the appended statement, prepared by the Government of India, which contains specially constructed index-numbers for 11 imported and 28 exported articles, together with their resultant index-number. The special index-number for foodgrains is compiled from the retail prices for rice, wheat, juar, millet, gram, etc., at selected stations. The base year for obvious reasons is the year 1873.

[1] Joshi's Indian Export Trade p. 30. These figures do not include re-exports.

			Foodgrains (retail.)	11 imp. articles.	28 exp. articles.	All articles.
1873	...	...	100	100	100	100
1874	...	...	100	99	102	101
1875	...	...	91	90	95	94
1876	...	...	97	91	90	90
1877	...	...	144	88	110	104
1878	...	...	174	84	114	106
1879	...	...	160	83	112	104
1880	...	...	118	88	110	104
1881	...	...	96	86	99	96
1882	...	...	95	85	95	92
1883	...	...	95	79	93	89
1884	...	...	99	78	96	91
1885	...	...	100	75	91	87
1886	...	...	105	80	93	89
1887	...	...	117	83	94	91
1888	...	...	123	92	98	96
1889	...	...	119	91	104	101
1890	...	...	121	91	104	100
1891	...	...	137	84	103	98
1892	...	...	148	84	109	102
1893	...	...	129	89	112	105
1894	...	...	114	84	110	102
1895	...	...	120	87	111	104
1896	...	...	155	94	117	110
1897	...	...	209	86	124	113
1898	...	...	139	80	102	96
1899	...	...	137	87	100	96
1900	...	...	192	97	124	116
1901	...	...	157	96	116	110
1902	...	...	141	86	113	105
1903	...	...	126	88	103	99
1904	...	...	117	93	104	101
1905	...	...	147	96	116	111
1906	...	...	179	105	139	129

	Foodgrains (retail.)	11 imp. articles.	28 exp. articles.	All articles.
1907	180	116	145	137
1908	231	106	151	138
1909	195	99	133	124
1910	168	109	127	122
1911	161	113	136	129
1912	189	117	145	137
1913	199	117	154	143
1914	222	114	160	147

Commencing with 100 for the base year 1873, the index-number for twenty-eight exported commodities, rose to 114 for the famine year 1878. It receded again to a figure below 100 to rise once more to 109 in the year 1892 and 112 in the year 1893, the years of a serious slump in exchange. It mounted to 124 in the year 1897 on account of a famine which transcended in its failure of food-crops even the terrible famine of the year 1899. Even after reaching this height, it receded once again to its base figure 100 for the year 1899, the last year of a free exchange.

In the first year of the gold exchange standard it leapt to the figure 124 due to the famine of 1899-1900. After a temporary recovery, its rise has been practically continuous, any temporary tendency to recovery being followed by a rise to a height far greater than that reached before, in spite of a series of prosperous years with the solitary exception of 1907. The figure for 1913 was 154, a height which was never reached in the years of the worst failure of monsoon, during the period preceding 1899, when exchange was free. It will be noticed that the index-number for *all* articles is dominated by the index-number for the twenty-eight exported articles, the rise in the index-number of the eleven imported articles which may be traced to the influence of gold prices being small in comparison.

The gold exchange standard with its fixity of exchange if its true nature is properly examined, is a 'stabilised' silver standard. This 'stability' again was in terms of gold and was obtained by destroying its stability in terms of goods. A stable price level was sacrificed for a stable exchange.

The central feature of the gold exchange standard, namely the rate of exchange which must be maintained at a particular level reveals the most serious misconception of the true object of a monetary system, which should be first and last to provide a satisfactory standard of value. In the hands of the Government of India however, with their attention directed purely to the difficulty which they experienced over their budget on account of a fluctuating exchange, the Indian currency problem has become more of an exchange problem than a monetary proposition. An attempt, however, is made to represent the gold exchange system as a scientific system, especially approximating to Ricardo's theory of a perfect currency. It will be important to examine more carefully its place among the monetary systems evolved by the civilised countries.

Note :—An important consequence of the remarkable growth of the export trade which is associated with the working of the gold exchange system was to increase continuously the trade balance in favour of India. The result was a flow of gold to India in enormous quantities. Simultaneously it fostered the most uneconomic consumption of gold. The first condition of gold being used for productive purposes, is that it should *function* as money. The working of the gold exchange system made this impossible.

Simultaneously in the event of the trade balance becoming unfavourable, it will not permit, in the interest of fixity, the use of all this gold for the purpose of export. If a country uses the gold it possesses to pay for its imports, it applies it for the only legitimate purpose for which it should be used. If the Indian price of gold rises on account of the incidence of this demand for foreign remittance above the level it kept when this demand was absent, this rise is a consequence of an inexorable economic law. Such a rise in the Indian price of gold must depress the gold par $\left(\frac{3\text{ G}}{8\text{ R}}\right)$ and with it also exchange. A fall in exchange under such circumstances is natural.

The exchange crisis of 1907-08 was no more a crisis than a crisis of this description. It was not due to India's reluctance to use the gold she possessed. The outstanding fact of the situation was that the fixity of exchange of the gold exchange standard depended upon the stability of the Indian price of gold at a particular level. This price shewed a tendency to rise above this level on account of the demand for export of gold. An upward movement in the price of gold, involved immediately a downward movement in the rate of exchange. Any tendency in the price of gold to leave the level at which it has been stabilised, must disturb the fixity of exchange and must produce a movement of the rate of exchange in the opposite direction.

SMITH COMMITTEE.

CHAPTER IV.

THE COMPLICATIONS INTRODUCED BY THE WAR—THE INVESTIGATION OF THE PROBLEM BY THE SMITH COMMITTEE—THE STEPS OF THE SECRETARY OF STATE TO GIVE EFFECT TO THE RECOMMENDATIONS—THE REAL GOLD EXPORT POINT —WAS THE ALTERATION OF THE RATIO JUSTIFIABLE? RICARDO'S QUOTATION FROM ADAM SMITH.

The war introduced complications in the smooth working of this system. A serious rise in the price of silver made the maintenance of the old ratio of 1/4 (gold) between the rupee and gold impossible. And secondly sterling ceased to be identical with gold, making choice necessary between gold and sterling with which the stable relation of the rupee was to be maintained.

The Smith Committee appointed in 1919 to investigate the problem recommended that the rupee should be 'linked' to gold and not to sterling and the stable relation to be established should be 2s gold or ten rupees to one sovereign.

The world conditions at the time when the problem was examined were abnormal; and, in the point of instability, there was little to choose between gold and sterling. Stability in terms of an unstable quantity like gold was an impossible quest. The attempt of the Indian Government to give effect to the recommendations of the committee under adverse conditions met with a disastrous failure.

It is now fully realised that the 2s gold ratio is fictitious and a fresh investigation of the problem is necessary. As far as the future policy is concerned, the recommendations of the Smith Committee have hardly any practical interest. Popular opinion favours return to the old ratio.

What were, however, the circumstances which necessitated the enquiry by the Smith Committee? What were their recommendations? What steps were taken to give effect to them? These questions possess more than an academic interest.

It will be remarked that the pivot of the system which received the shock of the war in 1914, was the stabilisation of the rupee at 1/4 gold, achieved by stabilising *gold* at fifteen rupees for one sovereign, or its equivalent in the Indian market Rs. 23.14.3$\frac{6}{11}$ per tola, by means of the open and unlimited offer to purchase gold at this price. For the offer to function, it was necessary that sufficient gold should be normally flowing into India so as to maintain the price of gold at this level, and secondly the price of silver shall be low enough to enable the Government to fulfil their undertaking to issue rupees to an unlimited extent at the rate of fifteen for one sovereign. When one grain of gold can purchase 21.90 grains of silver, the Government can coin exactly fifteen rupees from silver purchased with one sovereign.[1] So long as the ratio between gold and silver remains above 21.90, the Government can coin more than fifteen rupees for one sovereign. As soon as the ratio drops below this, the Government can coin rupees only at a loss.

As a result of the war, India's imports of gold were almost entirely cut off, owing to the refusal of gold standard purchasers of India's produce to pay for this produce in gold. The imports of gold consequently fell to 39 crores for the five years 1914—19 of which 18 crores were acquired by Government leaving only 21 crores to be absorbed by the Indian market, and reducing the yearly average supply to a figure below that of any of the preceding 25 years except famine years. Gold, consequently, left the level of Rs. 24 near which it was stabilised and rose to Rs. 29 per tola.

Unable to obtain gold, India turned to silver, the demand for which became almost insatiable, on account of the large

[1] One sov. = 113.0016 grains pure gold. One rupee = 165 grains pure silver.

balance of trade in her favour arising from the demand for Indian products and small shipments of manufactured goods from the United Kingdom and the Allied States, and also on account of a very heavy expenditure in India on behalf of the United Kingdom for war material and war services, financed by issuing notes in India against British Treasury Bills. In the three years 1916-19, she absorbed no less than 107 crores of rupees, an average of 36 crores yearly of a weight of 123 million ounces of fine silver, or considerably more than half of the maximum annual production of the world which was reduced owing to internal trouble in Mexico and the increased cost of production in other parts of the world. At the same time, the demand for silver for coinage purposes increased all over the world. All influences combined resulting in an increase of price of silver from 24d per standard ounce in 1914 to 55d in September 1917. The price then fell to 41$\frac{7}{8}$d in October 1917 and remained between that figure and 50d till May 1919, rising at the close of the year to 78d. On account of this rise in the price of silver, the ratio between gold and silver which was about 39 before the war dropped to 16 at the close of 1919.

As the price of silver rose, coinage of rupees could be undertaken only at a loss, consequently, the rupee was 'raised' by successive stages from one and four pence, the goal of the Indian currency policy since 1893, to two shillings and four pence.

The following table shows the successive stages at which rates were raised from 1/4 to 2/4.

Date of introduction.	Telegraphic transfers.
20th December, 1916	1*s*. 4$\frac{7}{32}$*d*.
3rd January, 1917	1*s*. 4$\frac{1}{4}$*d*.
28th August, 1917	1*s*. 5*d*.
12th April, 1918	1*s*. 6*d*.
13th May, 1919	1*s*. 8*d*.
12th August, 1919	1*s*. 10*d*.
15th September, 1919	2*s*.
22nd November, 1919	2*s*. 2*d*.
12th December, 1919	2*s*. 4*d*

This was the situation which the Committee presided over by Sir Henry Babington Smith was called upon to examine 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 maintaining a satisfactory monetary circulation, and to ensuring a stable gold exchange standard.' [1]

After examining the limits of the possible rise in the price of silver with reference to the melting points of the subsidiary coinage of the principal nations of the world, the committee recommended that the stable relation to be established between the rupee and gold should be at the rate of rupees ten to one sovereign,—with the avowed object of placing the rupee beyond the height to which the price of silver may possibly rise. At this rate, the Government could purchase silver for coinage into rupees without loss at 63d. (gold) per standard oz.

The Report of the Committee was published on 2nd February 1920 and on the same day the Secretary of State issued a note outlining his currency policy and announcing his decision to take the necessary steps to give immediate effect to the recommendations. Accordingly the Government of India announced that the rate which they would pay for gold tendered to them under the Gold Import Act [2] would henceforth be fixed at one rupee for 11.30016 grains of fine gold, that is, 10 rupees for the gold content of the sovereign. While the import of gold continued to be controlled by licence under the Gold Import Act with a fixed acquisition rate stated above, it was decided that the measure which was tried for some time to reduce the 'premium' on gold—which was quoted in the market near Rs. 29 per tola, compared with the pre-war level of Rs. 24 and with the

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[1] The terms of reference of the Committee.

[2] Act XXII of 1917 enacted as an emergency measure; it was repealed in June 1920.

new level of about Rs. 16 per tola according to the 2s. gold rate recommended by the committee—by regular Government sales of bullion to the public should be further developed. Consequential changes were introduced in the regulations relating to the sale of Council drafts by the Secretary of State and Reverse Councils by the Government of India, on the basis of the cost of shipping gold to, and from India, taking 2s. gold to be the parity of the rupee.

As the rate of exchange stood below the 2s (gold) rate, Reverse drafts were sold at the rate based on the sterling equivalent of 11.30016 grains of pure gold according to the latest available dollar-sterling quotation.

In the light of the analysis of the working of the gold exchange standard indicated in a previous chapter, the stabilisation of the gold value of the rupee at 2s (gold), involved the stabilisation of the price of gold at Rs. 10 for one sovereign or in the terms of the Indian market Rs. $15.14.10\frac{4}{11}$ per tola.

Before, however, gold can stabilise at this level, it must reach that level. From this point of view, the sales of gold bullion to the public were a definite step in this direction. But the 'premium' which gold commanded was primarily due to the restrictions upon the imports of gold. The necessary step was obviously to remove these restrictions. This, however, was not done.

Assuming, however, the decision to reduce the 'premium' by means of sales of bullion to be correct, the further course was to confine the attention entirely to these sales and to devote the whole resources of the exceptionally strong gold position to destroying the premium. Once this 'premium' had disappeared and gold had reached the level of Rs. $15.14.10\frac{4}{11}$ per tola the equivalent of the 2s. gold ratio, the remaining resources would have been required to *maintain* gold at this level. It is only *after* this stage was reached that sales of Reverse drafts might have been necessary.

If gold had been already stabilised at the level of one sovereign equal to 10 Rs. or its equivalent one tola equal to Rs. $15.14.10\frac{4}{11}$, the exchange value of the rupee would have been the sterling equivalent of 11.30016 grains of pure gold at the current quotation of the New York Cross-rate. In *these* circumstances, an adverse balance of trade and a consequent demand for export of gold would have been reflected in a rise of the price of gold *above* the level of Rs. $15.14.10\frac{4}{11}$, and a fall of exchange *below* the 2s. gold rate. This however, would be true on the assumption that gold had been already stabilised at this level.

When gold had never reached this level, that the rate of exchange stood below the 2s. gold rate indicated nothing. It certainly did not indicate a demand for the export of gold, as the 'premium' which gold commanded above the level of Rs. $15.14.10\frac{4}{11}$ was certainly not due to a demand for the export of gold.

The only function of Reverse Councils under an effective gold exchange standard would appear to be, that they prevent the incidence of a foreign demand for remittance upon the Indian gold market, which by inflaming it would depress the gold par and exchange with it. The two essentials which would justify such sales, are that gold shall have been stabilised at a level which, it is desired, should not be disturbed and secondly there is a demand for the export of gold which is likely to create this disturbance. None of these conditions existed in this case.

Nor was this all. The Reverse Councils were further sold at a rate which bore no relation to the real gold export point which the position of the gold par would indicate. Thus on the 10th March 1920, with London gold at 119/- per oz. and Indian gold at Rs. 23.12 per tola, [1] *the gold par was only* 1/10·5 *and the actual gold export point would be slightly below this ;* yet Reverse

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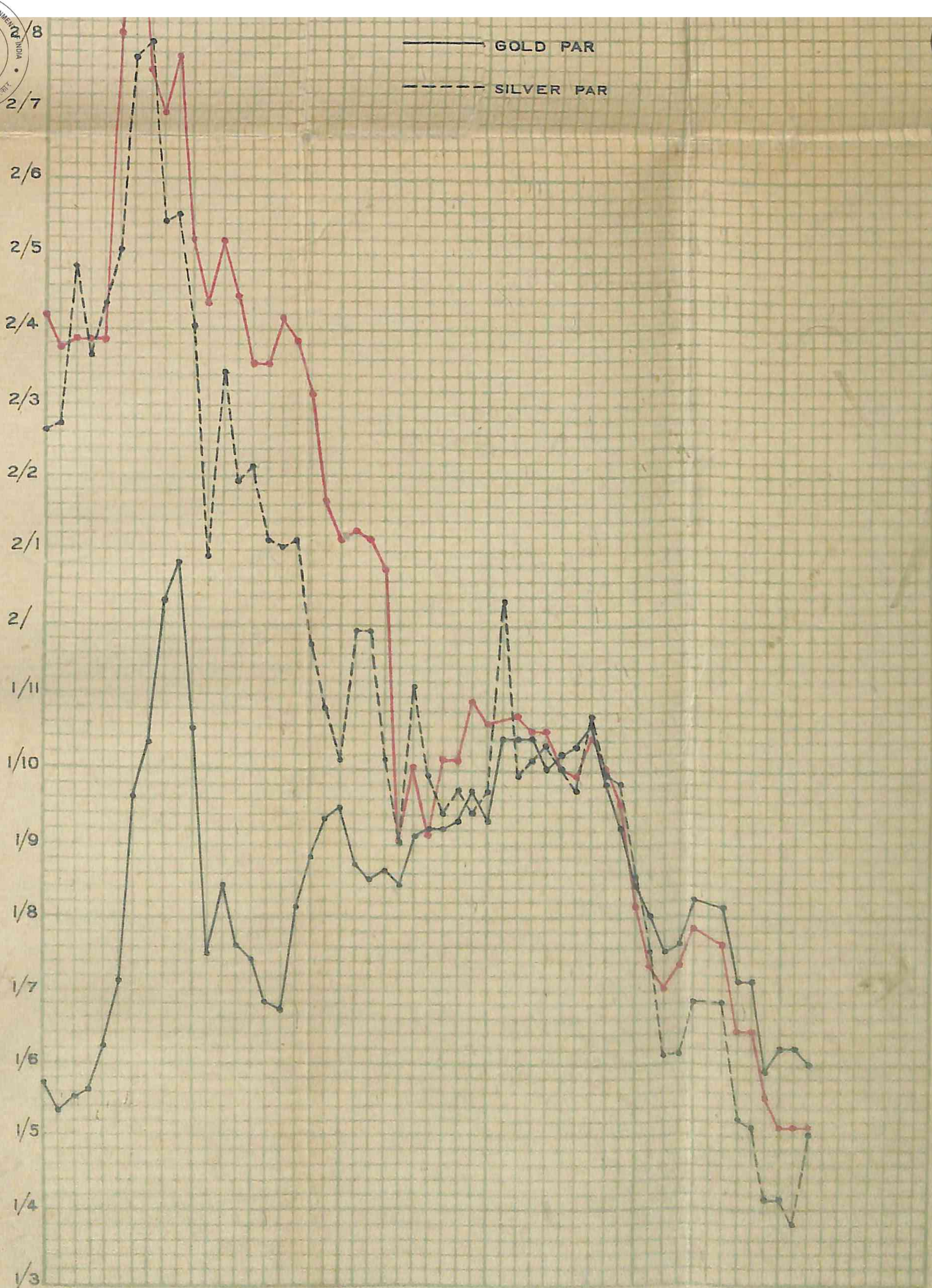
[1] There was a rapid decline in the price of gold in the Indian market, which however was temporary.



GOLD PAR
SILVER PAR
2/8
2/7
2/6
2/5
2/4
2/3
2/2
2/1
2/
1/11
1/10
1/9
1/8
1/7
1/6
1/5
1/4
1/3

new debased coin, bringing about a monetary crisis which might have shaken the Indian economic system to its very foundations.

If, on the other hand the rupee had been really a token, the absurdity of declaring a pound, for instance, equal to 15 shillings, simply because the appreciation of silver rendered the coinage of shillings at the current rate of 20 shillings unprofitable was apparent. The obvious course would be to reduce the fineness of the rupee, just as the fineness of the shilling has been reduced by the British Government.[1]

The confusion about the real status of the rupee will be apparent from the proposal of the committee to indemnify present holders of sovereigns, redeeming the sovereigns in their possession at the rate of fifteen rupees before the new ratio is introduced. The holder of the standard money holds pieces of the standard metal selected as the national currency of guaranteed weight and fineness. A state can only certify its weight and fineness. It can neither add to, nor take away from its value, which will be determined solely by the market. The holder of standard money, so long as its weight and fineness are not tampered with, holds its value in the market. That this value could be altered by a change in the value of its 'token' is the most fundamental misconception of money and its value. Though as it happens, the rupee was never a token, the holder of the sovereign held, in any event, its value in the market, and did not need the consideration shown to him by this proposal to 'indemnify' him. That, ultimately, in his utter gracelessness, he did not profit by it, will be evident from the fate of the notification which was actually issued in July 1920, expressing the readiness of the Government to redeem sovereigns at the rate of fifteen rupees (when the actual market value of the sovereign was near eighteen rupees).

Independently of the real status of the rupee and the feasibility of altering its ratio, was the raising of the rupee from 1/4 gold to 2s gold justified? The following quotation from Adam

[1] The fineness of the shilling has been reduced to ·500 from ·925, by the Coinage Act of 1920.

Smith by Ricardo, whom it is customary to treat sometimes as the presiding genius of Indian currency, should provide an answer.[1]

"The raising the denomination of the coin has been the most usual expedient by which a real public bankruptcy has been disguised under the appearance of a pretended payment. If a six-pence, for example, should either by Act of Parliament or Royal Proclamation, be raised to the denomination of a shilling and twenty six pences to that of a pound sterling, the person who under the old denomination, had borrowed twenty shillings, or near four ounces of silver, would, under the new, pay with twenty six-pences or with something less than two ounces. A national debt of about 120 millions, nearly the capital of the funded debt of Great Britain, might in this manner, be paid with about 64 millions of our present money. It would indeed be a pretended payment only, and the creditors of the public would be defrauded of ten shillings in the pound of what was due to them. The calamity, too, would extend much further than to the creditors of the public, and those of every private person would suffer a proportional loss ; and this without any advantage, but in most cases with a great additional loss to the creditors of the public. If the creditors of the public, indeed were generally much in debt to other people, they might in some measure compensate their loss by paying their creditors in the same coin in which the public paid them. But in most countries, the creditors of the public are the greater part of them, wealthy people, who stand more in relation of creditors than that of debtors towards the rest of their fellow citizens. A pretended payment of this kind, therefore, instead of alleviating, aggravates in most cases, the loss of the creditors of the public ; and without any advantage to the public, extends the calamity to a great number of other innocent people. It occasions a general and most pernicious subversion of the fortunes of private people, enriching in most cases the idle

[1] Ricardo's pamphlet, 'High Price of Bullion.' The original passage occurs in Book V Chapter III, the Wealth of Nations; Cannan's Edition Vol. II p. 415.

and profuse debtor at the expense of the industrious and the frugal creditor, and transporting a great part of the national capital from the hands which are likely to increase and improve it, to those who are likely to dissipate and destroy it. When it becomes necessary for a state to declare itself a bankrupt, in the same manner as when it becomes necessary for an individual to do so, a fair open and avowed bankruptcy is always the measure, which is both the least dishonourable to the debtor and the least hurtful to the creditor. The honour of a state is surely very poorly provided for, when in order to cover the disgrace of a real bankruptcy, it has recourse to a juggling trick of this kind, so easily seen through and at the same time so extremely pernicious."

And yet the prestige of the Government was considered at stake in maintaining the integrity of the rupee, and a singular argument advanced in favour of raising the value of the rupee was the diminished incidence of the public debt on the Indian revenues.

A STANDARD OF VALUE.

CHAPTER V.

THE HISTORICAL EVOLUTION OF MONEY—THE STABILITY OF VALUE OF GOLD AND SILVER—ADAM SMITH'S OBJECTION—THE LABOR STANDARD—RICARDO'S COST STANDARD—THE CONCEPTION OF VALUE—DEMAND AND SUPPLY—THE COST OF PRODUCTION—REASONS FOR THE PREFERENCE OF GOLD AS A STANDARD OF VALUE—THE DEFECT OF THE GOLD STANDARD.

With all the progress achieved in the organisation of credit it must be realised that credit can only economise the use of metallic money. While its possibilities in increasing the efficiency of money in this way should be unlimited, it cannot supersede money entirely. The principal function of money is to provide a standard of value.

There is a limit to exchange of commodities under a system of direct barter on account of the difficulty of the 'double coincidence' of a man who has one commodity to spare and wants another, meeting the man who wants just the commodity which the first can spare and can spare just the commodity which he wants. If there is to be a free exchange of commodities, people must have a 'medium of exchange', some one article which every one will take, with the certainty that it can be exchanged without difficulty for the commodity which may be wanted.

In the course of time, cattle, sheep, shells, slaves, hides and a curious variety of other articles have been tried as instruments of exchange.[1] Metals, however, on account of their greater convenience, were eventually preferred, the advance being from the cheaper to more precious metals. Iron, copper, silver and gold have, in successive epochs, fulfilled the requirements of a medium of exchange.

[1] See Chalmers, Colonial Currency, for curious examples.

Ultimately, gold and silver came to be universally preferred, because pieces of them are divisible without loss, easily carried about, easily stamped and recognised, durable, of great value in small bulk, and comparatively steady in value over long periods of time, answering, as approximately as they possibly can, the requisites of good money which should be a medium of exchange, a store of value, and a standard of deferred payments. In spite of their imperfections no other commodity has been found which can approach them in fulfilling these requisites.

Though, with increasing wealth, silver has steadily receded in public favour, it could not be summarily dismissed from the monetary function which it performed for a long period on account of its proved worth as a reliable monetary standard. Before gold acquired its predominant place, effort was made to retain both the metals for monetary purpose.[1]

Two different commodities, however, with their distinctive characteristics, would vary in value between themselves. Two monetary units, which fluctuate between themselves must create confusion. An attempt was therefore made to fix, by law, the ratio between gold and silver. This was, in effect, an attempt to suspend, in the case of gold and silver, the operation of the economic law of supply and demand, which must regulate the value of any commodity in terms of another.

It was found, however, that individual efforts of states were ineffectual in maintaining a fixed par between gold and silver. The market ratio deviated from the legal ratio and the consequence was that the cheaper metal drove the dearer out of circulation. It was for this reason that, long before the formal adoption of a single gold standard, England was practically a gold monometallic country, during the greater part of the eighteenth century, though both gold and silver were legal tender at the ratio of

[1] This crude attempt to adopt a double standard preceded historically the complete theory, developed later, of bimetallism. It is a complaint of bimetallists that their theory has never been put to real test in practice.

$15\frac{14295}{68200}$: 1. The market ratio at this time fluctuated near 15 : 1. Silver, being, thus, less valuable as coin than as bullion, disappeared from circulation and gold became the principal currency.[1]

Even concerted action by several states, including France, Belgium, Switzerland and Italy, joined subsequently by Greece, who adopted the same monetary system, failed to give a fixed relationship between gold and silver. The coinage ratio of $15\frac{1}{2}$: 1 was adopted by France in 1803. Belgium followed in the year 1832 and the other States later on. In the period upto 1850 about which time the Californian gold mines were discovered, the average commercial ratio stood *above* the French ratio. Gold being thus, less valuable as coin than as bullion, disappeared from circulation and silver became the principal currency. The conditions were reversed after the year 1850. On account of the large amount produced in California and Australia, gold fell in value in relation to silver and the average commercial ratio between gold and silver dropped *below* the French ratio. Silver

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[1] The ratio between *standard* gold and silver used in coinage was $15\frac{9}{124}$: 1. To add Ricardo's explanation, 'This may require further explanation. The relative value of gold and silver in the coins is as $15\frac{9}{124}$ to 1. An ounce of gold which is coined into £3. 17s. $10\frac{1}{2}$d. of gold coin, is worth, according to the Mint regulation, $15\frac{9}{124}$ ounces of silver because that weight of silver is also coined into £3. 17s. $10\frac{1}{2}$d. of silver coin. While the relative value of gold to silver is in the market under 15 to 1, which it has been for a great number of years till lately, gold coin would necessarily be the standard measure of value because neither the Bank nor any individual would send $15\frac{9}{124}$ ounces of silver to the Mint to be coined into £3. 17s. $10\frac{1}{2}$d., when they could sell that quantity of silver in the market for more than £3. 17s. $10\frac{1}{2}$d. in gold coin, and this they could do by the supposition, that less than 15 ounces of silver would purchase an ounce of gold.' Ricardo's works, Mc. Culloch's edition, p. 271.

became, thus, less valuable as coin than as bullion and disappeared from circulation, and gold became the principal currency.

The experience of the United States was similar. The ratio of 15 : 1 was adopted in the first instance, in the year 1792. This was found to favour the circulation of silver. The ratio was changed to 16 : 1 in the year 1834 with the deliberate object of favouring the coinage of gold. The figure selected was higher than the market ratio. Gold consequently became the principal currency and after the gold discoveries of 1848, serious difficulties were experienced in retaining subsidiary silver coins in circulation.

These failures led to the final abandonment of the double standard, in favour of gold, which had already become the principal currency of the leading commercial countries by its peculiar operation. England had taken this step in the year 1816 far ahead of the other nations. Among the continental nations, Germany was the first to demonetize silver in 1873. The United States prepared, by the act of 1873, for the resumption of specie payments on a gold basis, virtually establishing a gold standard, in spite of her lingering regard for bimetallism. Austria, Russia and Japan followed. The Indian Mints were closed in 1893, with the intention of adopting a gold standard.

Since the fateful year 1873, silver deservedly or undeservedly, has fallen into monetary dis-repute which is steadily increasing. Several attempts were made by the United States and France, to restore the double standard and to secure a stable ratio between gold and silver by international agreement including all the principal commercial countries of the world. But Germany would not participate in such a conference. England refused to consider any project compromising her gold standard. The various conferences broke up without any practical results.

Opinion may still be divided as to the merits of the sides in 'the battle of standards' which went on in the latter part of the nineteenth century. It is, however, impossible to ignore the fact that the 'battle' has been fought out and decided in favour of gold which, deservedly or undeservedly, holds the field completely.

It has been adopted by the leading commercial countries as their standard, which is the basis of valuation of all other commodities.

Objection, however, has been raised to the use of gold and silver as money as their value is not constant. The function of money should be, it is argued, to provide a unit of value which is constant, like the unit of length or weight. A commodity, whose value is itself subject to variations, cannot be used for comparing values of other commodities. The fluctuations which have occurred in the value of gold and silver, are, therefore, held to disqualify these metals for the monetary function. Thus Adam Smith wrote, 'As a measure of quantity such as the natural foot, fathom, or handful, which is continually varying in its own quantity, can never be an accurate measure of the quantity of other things; so a commodity, which is itself continually varying in its own value, can never be an accurate measure of the value of other commodities.'

According to Adam Smith, labour was the proper standard of value and provided the real measure of the exchangeable value of all commodities including gold and silver. "At all times and places, that is dear, which it is difficult to come at, or which it costs much labour to acquire; and that is cheap, which is to be had easily, or with very little labour. Labour alone, therefore, never varying in its own value, is the ultimate and real standard, by which the value of all commodities, can, at all times and places, be estimated and compared."[1]

The quantity of labour which could be commanded in exchange for a commodity, therefore, according to Adam Smith, gave the real measure of the exchangeable value of that commodity. "The real price of everything, what everything really costs to the man who wants to acquire it, is the toil and trouble of acquiring it. What everything is really worth to the man, who has acquired it and who wants to dispose of it or exchange it for something else, is the toil and trouble which it can save to himself, and which it can impose upon other people. What is bought with money or goods, is purchased by labour,

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[1] The Wealth of Nations; Bk. I Ch. V Cannan's Ed. I p. 35.

as much as what we acquire by the toil of our own body. That money or those goods, indeed save us this toil. They contain the value of a certain quantity of labour, which we exchange for what is supposed at the time to contain the value of an equal quantity. Labour was the first price, the original purchase-money that was paid for all things. It was not by gold or by silver, but by labour that all the wealth of the world was originally purchased ; and its value to those who possess it, and who want to exchange it for some new productions, is precisely equal to the quantity of labour which it can enable them to purchase or command." [1]

The principle of the labor standard has secured enthusiastic adherents, especially among those with leanings towards socialism, on account of its apparent foundation in equity. If money is the power to command the products of human industry, the most equitable distribution of wealth will, it is contended, result by making labor itself the basis of the monetary system. Human toil must be equally the basis of distribution of wealth as it is the prime factor of its production. Labour was, therefore, 'just and honest money'. A normal day's work is suggested, by some, to be the ideal unit of value—'the unit recognised by God and humanity.'

The simplicity of the labor standard, is, however, only apparent. The quest for a standard labor-unit would be hopeless as labour differs according to classes of commodities to which it is applied, each class involving many qualities. The quality of labour is again different with different labourers.

Labour is, besides, the least exchangeable of all objects and, therefore, least suited as a medium of exchange. Nor is the value of labour constant in different periods on account of improvement in its efficiency in the course of time. Labour cannot even, therefore, be said to be an *invariable* standard of value, insuperable as the difficulties would be of devising a practical scheme, making labour the basis of the monetary system.

Nor has Adam Smith, at any rate, suggested a scheme

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[1] The Wealth of Nations. Cannan's Ed. I p 32.

displacing gold and silver. Accepting gold and silver as money, he would use tables of wages for the purpose of *measuring* the variation in the purchasing power of money, fluctuations in wages being due, according to him, entirely to the fluctuations in the purchasing power of money, the value of labour, in his view, remaining constant. But as such records of prices of labour were not available, he made use of corn prices for this purpose, these, according to him, being more nearly approximately proportionate to prices of labour.

Ricardo rejects both corn and labour as standards of value. "Adam Smith, after most ably shewing the insufficiency of a variable medium, such as gold and silver, for the purpose of determining the varying value of other things, has himself, by fixing on corn or labour, chosen a medium no less variable."

Though Ricardo thus rejected labour as a *measure* of value, he made labour the *source* of value. The value of a commodity, in his view, was due to the quantity of labour, necessary to produce it. All things were more or less valuable in proportion as more or less labour was bestowed upon their production,—according to the difficulty or facility of production. The different quantities of labour necessary for their production, gave, therefore the basis for comparing the values of two commodities.[1]

His search for an invariable standard of value was, therefore, a search for a commodity whose labour-cost of production was constant. 'That commodity is alone invariable, which at all times required the same sacrifice of toil and labour to produce it'. [2]

He admitted, however, that no such commodity of constant labour-cost existed. "When commodities varied in relative value, it would be desirable to have the means of ascertaining which of them fell and which rose in real value, and this could be effected

[1] Compare Adam Smith's position. According to Adam Smith, the quantity of labour with which a commodity was *purchased* gave the measure of its value ; and a commodity was more or less valuable according as it required more or less labour to *acquire* it.

[2] Ricardo's works, Mc Culloch's Ed. p. 166.

only by comparing them one after another, with some invariable standard measure of value, which should itself be subject to none of the fluctuations to which other commodities are exposed. Of such a measure it is impossible to be possessed, because there is no commodity which is not itself exposed to the same variations as the things the value of which is to be ascertained; that is, there is none which is not subject to require more or less labour for its production." [1] In the absence of any other suitable commodity, he would accept gold as the nearest approximation to such an invariable measure of value.

The principal difficulty in this quest for an invariable standard of value has been due to an erroneous conception which assumes value to be a definite property of a commodity, which could, therefore, be measured by comparing it to the quantity contained in the commodity selected as the standard. It is not possible to say that a commodity possesses a definite amount of value just as it may be said to possess a certain length, breadth or weight.

Adam Smith was the first to point out the two different senses in which the term, 'value', was commonly used, 'sometimes expressing the utility of some particular object, and sometimes the power of purchasing other goods, which the possession of that object conveys'. The one may be called, "value in use" and the other "value in exchange". "The things which have the greatest value in use have frequently little or no value in exchange; and on the contrary, those which have the greatest value in exchange, have frequently little or no value in use. Nothing is more useful than water; but it will purchase scarce anything; scarce anything can be had in exchange for it. A diamond, on the contrary, has scarce any value in use; but a very great quantity of other goods may frequently be had in exchange for it." [2]

The province of money is to deal principally with the latter aspect of value.

Such a value necessarily involves a relationship. The

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1 Ricardo's works. Mc Culloch's Ed. p. 26.

2 The Wealth of Nations Bk. I Ch. IV.

exchange-value of a commodity can only be conceived and expressed in terms of another commodity. The quantity in which one commodity will be exchanged for another must depend upon a number of circumstances involving both the commodities. The ratios of exchange between sets of commodities will be different for different commodities sought to be exchanged.

A definite quantity of purchasing power cannot be inherent in any single commodity by itself. In the case of money the purchasing power, as shown by an index-number is simply an average whether arithmetic, geometric or harmonic of the ratios of exchange between the money-article on the one hand and a list of selected commodities on the other hand. But this average does not exist independently from the individual ratios from which it has been computed. It does not give a measure of some individual attribute belonging to the money-article.

The most important influence which determines the exchange value of one commodity in terms of another is the economic law of supply and demand.

Commodities are desired in varying degrees of intensity. The esteem in which they are held, may be independent of their real utility as in the case of diamonds; but it constitutes the essential ingredient of the demand for a commodity.

In the case of air and water, whose supplies are unlimited, there may be, generally, no occasion to compare the intensity of the desire for them. Of such, every one may take what he wants, in the quantities he wants. In the case, however, of commodities, whose supplies are limited, it will be necessary for an individual to compare the intensity of his desire for *quantities* of several commodities and give away those quantities in his possession which he desires less, for those which he desires more. This is the basis of all exchanges that take place.

A farmer has been able to raise 100 maunds of rice. For his subsistence, he may require 20 maunds urgently. After he has laid by this quantity, his need of clothing may be greater than that of a further quantity for the purpose of subsistence. He will, now, bargain with an individual who has a quantity of cloth to offer in the same way and needs rice. Assuming equal skill in bargaining both will endeavour to obtain as much of the commodities they want by parting with as little of the commodities they possess. After his demand for clothing is satisfied, the farmer might require fodder for his cattle. In this way, against his store of rice, he will try to obtain quantities of other commodities in the order of intensity with which he desires them. Supposing his need of subsistence is completely met by the 20 maunds of rice he has laid by, he needs little of the remaining 80 maunds of rice for its own sake but with his knowledge of the intensity with which it is desired by others, he will try to obtain quantities of other commodities which he himself desires. If he is thrifty, he may not like to use up all the store of rice. But he would prefer his savings in the form of that commodity which is not likely to deteriorate. If he finds, in addition, that his exchanges also would have been facilitated by means of this commodity, he would have obtained it from the outset, against the 80 maunds of rice, after keeping the 20 maunds he needs himself.

The demand for a commodity, therefore, must be an effective demand, backed by 'ability to give value' on the part of those desiring this commodity. Nor is the demand a rigid quantity. The extent of the demand for a particular commodity will depend upon the satisfaction of the demand for the urgent quantities of commodities which enjoy precedence over this commodity in the scale of desires and satisfactions of individuals. This scale will not be the same for all individuals.

For all individuals, food, shelter, and clothing would usually be among the first objects of desire. But a distinct scale would obtain for every individual for objects in general.

The supplies of a commodity[1] will be those which have been made available by human industry with its limitations, applying itself to the production of different commodities in different quantities according to its estimate of the differing degree of intensity of demand for them.

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[1] Some commodities cannot be multiplied by human industry at all. Such are rare statues or pictures, rare manuscripts and coins.

When this estimate errs in the case of a particular commodity, there is over-production or deficient production in this commodity.

Over-production in a particular commodity, by its excessive supplies, lowers its exchange-value in terms of the commodities, whose quantities are desired with greater intensity in comparison. The low exchange-value will divert the activity of human industry from the excessive production of this commodity to the production of the other commodities whose supplies are deficient and which are required in larger quantities.

Deficient production, on the other hand, will raise the exchange value of this commodity in terms of those whose quantities are desired to a less extent, and will, thus, attract human industry for increasing its supplies by diverting it from the excessive production of those which are not desired in the quantities in which they are produced. Production, thus, will be constantly adjusting itself to the needs of the community.

In practice, the cost of production, in terms of the money-article provides the guide for judging over-production or deficient production. When the 'price' of a commodity falls below the cost of production, taking, of course, this cost to be the cost of efficient production there is said to be over-production ; and the effect of this fall will be to restrict the production of this commodity. If the 'price' stands above the cost of production, the production is deficient and the effect of the 'high price' will be to stimulate the production of this commodity.

Assuming the general efficiency of human industry standing at a particular level, its activity would be directed in different proportions towards the production of commodities in quantities with relation to the 'demand' for them. In the case of a particular commodity, on account of some new invention, the out-put of the portion of the industry engaged in its production may be considerably increased. These increased supplies are obtained without interfering with the activity of the industry engaged, as before, in the production of the other commodities in relation to the 'demand' for them. The 'cheapened cost of production' will thus, result in a low exchange-value of this commodity. In this case, however, the low exchange-value does not indicate, of itself, over production.

The search for ideal money, which has proceeded upon absolute conceptions of the terms, demand and supply, cost of production, and value, removed from the varying desires and satisfactions of mankind and limitations of human industry, has always failed.

The principal monetary function is to facilitate exchanges. The most important qualification of good money is, therefore, highest exchangeability.

The principal reason why the considered judgment of civilized nations has handed over the monetary function to gold is that it is an article of *universal* desire and consequently an article of *universal* exchangeability. The demand for other commodities in its intensity, frequently takes precedence over the demand for gold. But this intensity is liable to fluctuations; the demand is confined to particular classes of people only ; and over-production, due to misdirection of human industry, may seriously affect its exchangeability. 'So long as the manufacturer can exchange his products readily for other products at prices which seem to shew a net profit, gold has little esteem value in his eyes. He is almost ready to accept the illusions of the advocates of ideal money and the multiple standard,[1] that trade is wholly barter, in which the intervention of real money is a relic of an outgrown superstition. When the fact is brought home to him, however, that his goods have lost esteem value, because of over-production or for other reasons, and this fall in

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[1] The advocates of the tabular or multiple standard make a practical use of index numbers determined on lists which, so far as actually carried out, have usually been confined to the prices of commodities. Their recommendations have generally been in one of two forms; either that contracts should be settled in sums varying directly with the index figures, with aim to correct the imperfection of money as a standard; or that money itself should be so regulated as to maintain the index figure nearly invariable, with aim to keep money perfect so far as possible as a standard.

the esteem-value in the minds of others finds expression in a lower valuation of his goods in gold, then suddenly rises in his mind the esteem value of real money—the only common form of value which is always exchangeable for other forms of goods. He realizes the force of the maxim of Marx, that whether "labour is useful for others and its product consequently capable of satisfying the wants of others, can be proved only by the act of exchange." [1]

The standard quality of the precious metals is another element which makes them the most convenient standard of value. Gold, whether mined in Mysore, South Africa, or Australia is of the same standard purity. This uniformity of quality is of great importance in the material used for money. Indian wheat is different in quality from Canadian or English wheat and has a different exchange value. There is no difference in the exchange value of *pure* gold and silver on account of differences in quality.

The durability of precious metals is an important element contributing to their steady exchangeability which extends over long periods of time. Other commodities are liable to serious deterioration and cannot be stored at all. The supplies of any other commodity depend almost entirely upon the annual out-put of industry which is liable to wide fluctuations. A serious shortage due to temporary causes may raise its exchange value very high; and excessive production may lower it to a very great extent. The virtual indestructibility of gold makes it possible to store it. The accumulated store of the past production, even after allowing for the loss by wastage and wear and tear has rendered the supply of gold virtually independent of the disturbing effect of ordinary fluctuations of the annual out-put which bears a small proportion to the existing stock.

One of the lessons of the war is said to be the failure of gold as a standard of value. The break-down of the monetary systems of Europe, however, may be traced to two causes one of which relates solely to the financial policy of the States without refer-

[1] Conant I p. 173. The Principles of Money and Banking.

ence to the monetary standard and the other to an erroneous conception of the function of gold as the basis of the monetary system.

The break-down of the monetary systems of Europe due to the financial policy of the States would have occurred the same way with any other standard of value. It was an inevitable consequence of a frequent resort to the printing press for financing the war expenditure. This can have no relation to the monetary standard in so far as the nations were obliged to spend beyond their means whether their resources be stated in gold or any other standard of value.

The other cause indicates the one important defect of gold as a monetary standard. The defect, however, is not inherent in gold as a standard of value. It flows from the reserve policy of the western nations adopted in blind imitation of the English monetary system. A superficial study of the bank-rate policy of England which was primarily designed to control the flow of loanable capital, has induced a belief that an important function of the central reserve was to prevent the flight of gold and that it should be carefully guarded to maintain international credit. It reveals a serious taint of mercantilism in the European attitude towards gold, which sees in its visible accumulation the evidence of the wealth of the country. It has encouraged an organised policy of hoarding, which is the more insidious as it has been systematically practised. The evil has become particularly grave since the war. The break-down of the Indian monetary system may be referred principally to the refusal of the gold standard countries to part with their gold in payment of their debts to India.

The practical with-drawal of the gold, hoarded at present in the vaults of the central banks of Europe is responsible for the serious fluctuations in the value of gold. The essential preliminary to a return to stability is the release of all this gold from the hoards where it is lying uselessly. This will involve a radical change in the conception of the function of gold reserves in the monetary system. 'For the next few years, a country possessing a gold standard will doubtless have to be prepared for far more violent fluctuations in its gold reserve than ever used to take place in pre-war days, and it must be realized that an anxious insistence on keeping to the old rules for the regulation of gold reserves will no longer prove to be compatible with a rational monetary policy. The required stability in the value of gold can only be attained if the central banks in countries which have returned to a gold standard are prepared without reserve both to accept gold and to part with gold in strict accordance with what the market situation demands. Such a policy will in the long run bring about the stabilisation of the gold market, and thereby a limitation of the gold reserves to more normal proportions, whereas any attempt to obstruct the free movement of gold must react on the steadiness of the market."[1]

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[1] Prof. Cassel—Money and Foreign Exchange after 1914, p. 280.

RICARDO'S THEORY OF CURRENCY.[1]

CHAPTER VI.

RICARDO'S CONCEPTION OF A PERFECT CURRENCY—ADOPTION OF A DEFINITE STANDARD INDISPENSABLE—HIS OBJECTION TO A COMMODITIES STANDARD—THE RESPECTIVE MERITS OF GOLD AND SILVER—COMPLETE CONVERTIBILITY THE BASIS OF RICARDO'S PAPER MONEY—THE PRINCIPLE OF REDEMPTION IN BARS—THE COMPLETE OUTLINE OF HIS SCHEME—HIS EMPHASIS ON THE FREEDOM FROM CONTROL OF BOTH THE STATE AND THE BANK—THE RELATION OF THE GOLD EXCHANGE SYSTEM TO RICARDO'S PLAN—THE RUPEE A NOTE PRINTED ON SILVER—THE OUTLINE OF THE INDIAN SYSTEM - THE INCONVERTIBILITY OF THE NOTE PRINTED ON SILVER—THE STATE CONTROL—THE FUTURE ORGANISATION OF THE INDIAN SYSTEM—A TABLE OF COMPARISON BETWEEN RICARDO'S PLAN AND THE INDIAN SYSTEM.

I

The principal function of money is to provide a standard of value. The article, thus selected, need not be the medium of

[1] Ricardo's scheme is of special interest as the gold exchange system is said to have been evolved on the lines similar to those laid down by Ricardo. Ricardo was one of the most advanced thinkers, who looked far ahead of his time in the sphere of currency. His speculations in the region of currency, were not purely theoretical. His outlook was eminently practical and his conclusions are of great value especially to-day. The English monetary system had broken down under the stress of the Napoleonic Wars. The inconvertible paper, which had driven gold out of circulation, had brought its usual accompaniment of high prices and unstable exchange. The Report of the Bullion Committee, which condemned the excessive issue of paper and practically established the gold standard for England was influenced considerably by the writings of Ricardo. Specie payment was finally and completely resumed by the Bank of England in 1821.

For a tribute to Ricardo's genius, see Prof. Marshall, Money Credit and Commerce, p. 41.

circulation. The organisation of credit in the civilised countries has provided the means of dispensing with the actual intervention of the standard in transactions. In England, though gold had been the standard of value for more than a century, the circulation has mostly consisted of cheques and notes.

Though gold may not conform to the test of an ideally perfect standard of value, there is no practical alternative to it, by which its use as a monetary standard could be dispensed with. Monetary progress achieved so far has not yet found a satisfactory substitute in place of gold. Gold must continue to perform the monetary function and the development must proceed in the direction of perfecting measures for dispensing with the actual employment of gold as a circulating medium. It is in this connection that Ricardo's plan is of particular interest.

According to Ricardo, that currency is perfect, of which the standard is invariable, which always conforms to that standard, and in the use of which the utmost economy is practised.

His scheme in substance was, that while gold or silver must be adopted as the standard in the absence of any other suitable commodity, the circulation should be of paper only which must be maintained at par with the standard, whether gold or silver.

While his proposal was primarily to secure a circulation of paper at par with the standard whether gold or silver, he was equally emphatic as to the necessity of adopting some definite standard to which the paper currency must conform.

In Ricardo's time also, there were those who advocated a free paper standard, who suggested that the paper they were using should be linked not to gold but to goods in general, in other words, the value of paper should be regulated not by the value of gold but by the price level.

Ricardo, however, maintained, 'commodities generally, can never become a standard to regulate the quantity and value of money ; and although some inconveniences attend the standard we have adopted, namely gold and silver, from the variations to which they are subject as commodities, these are trivial, indeed, compared to those which we should have to bear if we adopted the plan recommended.'[1]

'Some commodities are rising in value, from the effects of taxation, from the scarcity of the raw material of which they are made, or from any other cause which increases the difficulty of production. Others again are falling, from improvements in machinery, from the better division of labour and the improved skill of the workmen; from the greater abundance of the raw material, and generally from the greater facility of production. To determine the value of a currency by the test proposed, it would be necessary to compare it successively with the thousands of commodities which are circulating in the community, allowing to each all the effects which may have produced upon its value by the above causes. To do this is evidently impossible.'[2]

The progress since made with index figures, does not diminish the force of Ricardo's objection. Assuming it were possible—no such assumption holds true with regard to existing index-numbers—to construct a trustworthy index-number, reflecting accurately the changes in the purchasing-power of money in respect of a list of commodities, which is comprehensive, after making due allowance for the 'weight' or importance of each commodity, it would be further necessary to ascertain, when a variation occurs in the price level, the extent of such variation due to causes which have no direct reference to the money article and relate solely to particular commodities, the changes in the prices of these commodities being responsible to that extent for the change in the average, indicating the general price-level: this is not feasible.

Ricardo, therefore, rejected the idea of a currency without a specific standard. 'This idea of a currency without a specific standard was, I believe, first advanced by Sir James Steuart, but no one has yet been able to offer any test by which we could ascertain the uniformity in the value of money so constituted. Those who supported this opinion did not see, that such a

[1] Ricardo's works; Mc. Culloch's Edition p. 401.

[2] Ricardo's works; Mc. Culloch's Edition p. 400.

currency instead of being invariable was subject to the greatest variations, that the only use of a standard is to regulate the quantity and by the quantity the value of the currency—and without a standard it would be exposed to all the fluctuations to which the ignorance or interests of the issuers might subject it.'[1]

'While the precious metals continue to be the standard of our currency, money must necessarily undergo the same variations in value as these metals. It was the comparative steadiness in the value of precious metals for periods of some duration, which probably was the cause of the preference given to them in all countries as a standard by which to measure the value of other things.'[2]

'The introduction of precious metals for the purposes of money may with truth be considered as one of the most important steps towards the improvement of commerce and arts of civilised life; but it is no less true that, with the advancement of knowledge and science we discover that it would be another improvement to banish them again from the employment to which during less enlightened period they had been so advantageously applied.'[3]

'While a standard is used, we are subject to only such a variation in the value of money as the *standard* itself is subject to; but against such a variation there is no possible remedy, and late events have proved that, during periods of war, when gold and silver are used for the payment of large armies distant from home, these variations are much more considerable than has been generally allowed. This admission only proves that gold and silver are not so good a standard as they have been hitherto supposed, that they are themselves subject to greater variations that it is desirable a standard should be subject to. They are, however, the best with which we are acquainted. If any other commodity less variable could be found, it might very probably be adopted as the future standard of our money, provided it had all the other qualities which fitted it for that purpose; but while

[1] Ricardo's works: Mc. Culloch's Edition, p. 400.

[2] Ricardo's works: Mc. Culloch's Edition, p. 397.

[3] Ricardo's works; Mc. Culloch's Edition, p. 404.

these metals are the standard, the currency should conform in value to them.'[1]

Which of the two metals, gold and silver, is more suitable as a standard? Ricardo's objection against gold is of special interest to-day, in view of the organised hoarding (which is none the less insidious as it is practised by banks) by the central banks of Europe. "Much inconvenience arises from using two metals as the standard of our money; and it has long been a disputed point whether gold or silver should by law be made the principal or sole standard of money. In favour of gold it may be said, that its greater value under a small bulk eminently qualifies it for the standard in an opulent country; but this very quality subjects it to greater variations in value during periods of war or extensive commercial discredit, when it is often collected and hoarded and may be urged an argument against its use. The only objection to the use of silver as the standard is its bulk which renders it unfit for the large payments required in a wealthy country; but this objection is entirely removed by the substitution of paper-money as the general circulating medium of the country. Silver, too, is much more steady in value, in consequence of its demand and supply being more regular; and as all foreign countries regulate the value of their money by the value of silver, there can be no doubt that on the whole, silver, is preferable to gold as a standard, and should be permanently adopted for that purpose.'[2]

The experience of India under the silver standard fully corroborates Ricardo's view regarding the steadiness of the value of silver. The attitude, however, of the leading commercial countries towards silver has changed completely, since Ricardo wrote. It will be a miracle if silver is rescued from the monetary disrepute into which it has fallen.

Nor would Ricardo enforce his preference for silver. He was content that gold answered, as approximately as it could, his test—constant cost of production—of an invariable measure

1 Ricardo's works: Mc.Culloch's Edition, p. 402.

2 Ricardo's works; Mc.Culloch's Edition, p. 402.

of value. His interest was centred in devising a plan which would secure a cheap circulating medium of paper based upon the standard whether gold or silver.

It is not necessary to examine the peculiar doctrine of Ricardo as regards the principle on which paper money circulates. According to him, a paper-note, though of no more intrinsic value than the piece of paper on which it is made, was a piece of money on which seignorage amounted to its full value and retained this value if its quantity was regulated according to the value of the metal, which is declared the standard and which it is intended to represent. Thus, in his view, the difference between the full value of the rupee and its intrinsic value would have been the seignorage. 'While the State alone coins, there can be no limit to this charge of seignorage; for by limiting the quantity of coin it can be raised to any conceivable value.' [1]

We may leave alone the peculiar terms of seignorage in which Ricardo states this principle. That a currency can be maintained at a value higher than that of its intrinsic worth on the principle of limitation of quantity, has been fully established by the Indian currency experiment.

We are concerned with the practical measure he suggested and the only measure he relied upon, for enforcing the principle of limitation of quantity, as a means of ensuring the parity of paper with gold. While on theoretical grounds, it may not be necessary that paper money should be payable in specie to secure its value, provided its quantity was properly controlled, he was definitely against intrusting this power of regulating the quantity of currency either to the State or to the Bank. 'Experience, however, shows that neither a State nor a Bank ever have had the unrestricted power of issuing paper money without abusing that power : in all States, therefore, the issue of paper-money ought to be under some check and control, and none seems so proper for that purpose as that of subjecting the issuers of paper money to the obligation of paying their notes either in gold coin or bullion.' [2]

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[1] Ricardo's works ; Mc. Culloch's Edition, p. 213.

[2] Ricardo's works ; Mc. Culloch's Edition, p. 215.

The experience of the Great War in no way modifies this position. According to idealists, the gold standard may be a 'barbarous' relic. On general principles, convertibility into gold may not be absolutely essential, for securing the value of the currency. Theoretically it may be even possible to manipulate the credit and currency machine, with the primary object of keeping prices steady. [1] But no State or Bank could be trusted with this discretion of managing the currency. There can be no mistake about the real cause of the break-down of the monetary systems of Europe. Practical financiers have been watching with anxiety the growing distrust of the paper-note, due to unhappy manipulations by both States and Banks,[2] a distrust which may result in the people insisting on a currency of 'ringing metal' cancelling the important progress achieved, in the perfection of the credit and currency machine and throwing the civilised world on currency methods which were practised a century ago.

For some continental nations, it may be useless even to think of returning to pre-war gold parity. These countries might have to carry out what is known as a 'policy of devaluation', in order to restore the gold standard. But a return to the principle of convertibility provides the only escape from the unstable paper standard with which Europe is at present ridden. It will be the one guarantee of sane finance guiding the policy of States.

The key-stone of Ricardo's scheme of paper currency is the compulsory redemption of notes in gold, with this important modification that gold thus issued should not be coins but bars, the lowest weight of a bar being 20 oz., which would be an impossible unit for use as currency. Gold, issued in this form, could not enter into internal circulation. By this means, there-

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1 Keynes, the Tract on Monetary Reform.

2 The recent example of the Bank of France having manipulated accounts with the connivance of the French Government to conceal the issues may be cited. Even the Indian paper currency management noted for its conservative principles has not been proof against issues backed by securities created *ad hoc*.

fore, it could be ensured that gold was not withdrawn from the bank for use as currency.

"To secure the public against any other variations in the value of currency than those to which the standard itself is subject, and at the same time to carry on the circulation with a medium the least expensive, is to attain the most perfect state to which a currency can be brought, and we should possess all these advantages *by subjecting the Bank to the delivery of uncoined gold or silver at the Mint standard and price, in exchange for their notes*, *instead of the delivery of guineas* ; by which means, paper would never fall below the value of bullion without being followed by a reduction of its quantity." [1]

To give a complete outline of his scheme,

(1) The Bank should be obliged to purchase any quantity of gold that was offered, at £3 17s. per oz. This was to be the rate of issue of paper.

(2) The Bank should sell any quantity of gold that may be demanded at £3 17s. 10½d. per oz. This was the rate of redemption of paper.

(3) The lowest weight of gold thus dealt with by the Bank should be 20 oz. [2]

(4) The Mint should remain open, as a safeguard against a capricious limitation of the quantity of paper by the Bank. In the event of a perverse refusal by the Bank to issue paper, it should be possible for the public to get coin from the Mint. As taking bullion to the Mint, however, would involve loss of interest till the delivery of pieces completely coined, the price at which paper is issued in exchange for gold should be so fixed that it would be to the interest of the holder of the bullion to sell it to the Bank for paper rather than to carry it to the Mint to be coined.

[1] Ricardo's works ; Mc. Culloch's Edition, p. 215.

[2] The figures suggested by Ricardo were tentative only to elucidate the principle.

(5) The most perfect liberty should be given, at the same time to export or import every description of bullion.

While the particular figures suggested by Ricardo might require modification, the two fundamental principles on which the scheme was outlined are clear. The first was that instead of being made exchangeable for gold coins, bank-notes should be exchangeable for bars of gold bullion of the standard weight and purity; and the second was that the discretion of limiting the quantity of paper should on no account be entrusted to the Bank. This was the reason for his insistence on compulsory redemption of paper. The safeguard of an open Mint though in direct opposition to the very spirit of his scheme of paper currency was designed with the intention of taking away completely the discretion of limiting the circulation from the Bank. The proposal was, of course, to be carefully framed so that it would be to the interest of the public to get paper from the Bank rather than coin from the Mint. The motive, however, which prompted the retention of the safeguard of an open Mint, cannot be mistaken. A scheme of currency that is automatic in its operation is far better than any managed system.

"With the known opinion of the Bank Directors as to the rule for issuing paper-money, they may be said to have exercised their powers without any great indiscretion. It is evident that they have followed their own principle with extreme caution. In the present state of the law, they have the power, without any control whatever, of increasing or reducing the circulation n any degree they may think proper; a power which should neither *be intrusted to the State itself, nor to anybody in it, as there can be no security for the uniformity in the value of the currency, when its augmentation or diminution depends solely on the will of the issuers.* That the Bank have the power of reducing the circulation to the very narrowest limits, will not be denied, even by those who agree in opinion with the directors, that they have not the power of adding indefinitely to its quantity. Though I am fully assured, that it is both against the interest and the wish of the Bank to exercise this power to the detriment of the public, yet, when I contemplate the evil consequences which might ensue from a sudden and great reduction of the circulation, as well as from a great addition to it, I cannot but deprecate the facility with which the State has armed the Bank with so formidable a prerogative". [1]

It is of interest that Ricardo's scheme was tried in England, the Bank having resumed specie payment in the first instance in gold bars. It was found however that one pound notes which took the place of sovereigns were forged on an extensive scale and it was thought advisable to adopt a mixed currency, trusting the natural means, which credit instruments provided, for economising the use of gold in circulation.

II

The gold exchange system is said to embody the fundamental principle of Ricardo's scheme. Mr. Lindsay who originally suggested the idea of the gold exchange standard, framed his proposals expressly referring to Ricardo's plan as the model which he had adopted. Probyn's proposal actually urged the incorporation of the principle of redemption in bars in the Indian currency system. A gold standard without a gold currency was, however, an experiment without a precedent in the monetary history of the most civilized countries. Though the Fowler Commission rejected it on these grounds, the Indian system actually developed on the lines fore-casted by Mr. Lindsay who, it is interesting to remark, was confident from the beginning that his scheme must be ultimately adopted in spite of the cold reception in the beginning. If Ricardo's plan has, thus, served as the model for the Indian system, it will be important to institute a careful comparison between the two.

The central feature of the Indian currency system is that the circulation consists of silver rupees whose value was maintained artificially at par with gold, which is held in reserve and is available only when it is needed for export. It is said to work on the warehouse plan. Gold which is drawn by India on account of her

[1] Ricardo's works; Mc. Culloch's Edition, p. 217.

favourable trade balance, is received into the ware-house, against which, the Indian Government, the custodians of the ware-house, issue rupee tickets which circulate as currency gold being surrendered against the tickets, when required for foreign payments only. The Chamberlain Commission quoted, with approval, the authority of Plato who, for his ideal State, would have an internal currency of notes stamped on leather, a reserve of gold being kept for exchanging the bits of leather when required by citizens for foreign use. The only point in which the Indian currency differed was that the rupee was a note printed on silver.

Ricardo's scheme was designed to secure a circulation of paper-notes. The Indian system secured a circulation of notes printed on silver,—the reason for printing them on silver being the capricious preference of the Indian people for a currency of 'ringing metal,' according to the protagonists of this system.

To give a complete outline of the working of the Indian system,

(1) The Indian Government bound themselves to purchase any quantity of gold that was offered, at the rate of 15 rupees for one sovereign. In other words, the Indian Government were prepared to issue notes printed on silver against gold to an unlimited extent at the rate of 15 rupees for one sovereign.

(2) The Indian Government were prepared to sell gold at the rate corresponding to the gold export point. But this was not an open offer always, nor an unlimited offer, the gold being available only when in the view of the Government the weakness of exchange indicated a demand for the export of gold and then only to the extent of the resources at the disposal of the Government. In other words, the notes printed on silver were ordinarily inconvertible and redeemed to a limited extent in gold, in the contingency of an unfavourable balance of trade, and even then the resources of the Government might

not be pledged to an unlimited extent to meet any contingency that may arise. The necessity for this limitation arose because the cost of the note printed on silver was a heavy charge and had to be met from the gold against which it was issued and therefore, all the gold against which rupees were issued was not available when these notes printed on silver were presented for redemption. The difficulty was thus due to the unaccountable preference of the Indian people for the note printed on silver.

(3) The Indian Mints were closed entirely to public coinage, whether gold or silver.

(4) A paper-currency is maintained, convertible into the rupee. The standard of the paper-note is the rupee —the inconvertible note printed on silver,—into which it is convertible and to which its value must conform.

The outstanding feature of the Indian system is that (i) the medium of circulation is the inconvertible note printed on silver. (ii) The discretion of controlling the quantity of circulation is vested completely in the Government.

The divergence, therefore, of the Indian currency from its model is fundamental in the two essential principles on which Ricardo's scheme is based.

(i) Ricardo's scheme insisted upon complete convertibility to ensure the parity of paper with gold, relying upon the *form* in which gold was issued to prevent it from entering into circulation.

When Ricardo promulgated his scheme of paper currency, paper actually circulated in England to the exclusion of gold; but it was inconvertible paper, which he, therefore, rejected, as it provided an unstable basis for parity either with gold or goods in general.

The Indian system depends upon the inconvertibility of this note printed on silver for driving gold out of circulation, the measure of its parity with gold being the link always the weakest of an inconvertible note with gold.

It is in the nature of an inconvertible note currency, whether the note be printed on paper or silver, to circulate to the exclusion of gold. It is a simple operation of Gresham's law, inferior money will drive out better. The exclusive circulation of the rupees, under the gold exchange system, far from indicating a deliberate preference of the Indian people for the rupee, was an index of the inferiority of the rupee currency. No more can the exclusive circulation of inconvertible notes in Europe at present be taken as evidence of the partiality of the European people for them. The operation of the laws of currency is not different in India from that in Europe.

Once a currency becomes irredeemable in gold, gold ceases to be the *standard* regulating its value. In European countries, the gold standard came to an end when convertibility ceased.

A standard of value may function as money through the representative currency consisting of tokens and convertible notes. Tokens are a subsidiary currency needed for retail transactions, of little intrinsic worth, legal tender for small amounts at a definite relation to the standard coin. The rupee currency was never a token currency of this description.[1] Nor has it been a convertible note deriving its value from its standard.

In India, the rupee itself has been the standard of value and it takes its characteristics as a standard from the inconvertible note to which it corresponds.

The principal characteristic of an inconvertible note is that it is an unstable standard of value.

A seller of commodities will naturally demand a higher price for them in terms of another whose value is uncertain. The greater the distrust with which the money-article is regarded, the higher will be the price demanded, of any commodity in its terms. This is the cause of inconvertible paper bringing with it invariably the regime of high prices.

The rupee shares fully with an inconvertible note, this

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[1] This has been carefully examined in Chapter II.

want of esteem. As a metallic coin, it is not an 'honest' coin in the eyes of Indian dealers, its intrinsic worth being less than its face value. Regarded as a note issued against gold, it is not redeemable in gold. The connection therefore, of high prices with the gold exchange standard is not only, not accidental but inherent in its very nature.

(ii) Ricardo was unwilling to trust either the State or the Bank with the discretion of manipulating the quantity of circulation. A currency to inspi re confidence must be absolutely automatic in its operation. His proposal to keep the mint open as a safeguard against an artificial limitation of the quantity of currency by the Bank, though directly opposed to the very spirit of his scheme of paper currency, was inspired by this motive.

In the case of irredeemable currency, the usual argument employed is that the quantity issued is in strict accordance with the demands of trade.

"The plea that no more is issued than the wants of commerce require is of no weight ; because the sum required for such purpose cannot be defined. Commerce is insatiable in its demands and the same portion of it may employ 10 millions or 100 millions of circulating medium ; the quantity depends wholly upon its value." [2]

On two important occasions the Indian Government had to examine carefully whether their discretion of reducing the quantity of circulation,—in the contingency of an unfavourable trade balance according to their accepted principle,—could be exercised ; and on both these occasions they failed. In the year 1907-08, they did not realize in time the necessity of meeting the demand for the export of gold. In the year 1920, they entirely misunderstood the function of Reverse Councils in supporting exchange and sold sterling drafts in the face of a favourable trade balance with disastrous consequences.

It would be ordinary wisdom not to claim a discretion which nobody is qualified to exercise.

The most important difference, however, is that the rupee

[2] Ricardo's works. Mc Culloch's Ed. p. 341.

is not a cheap circulating medium at all. Whether the circulation consists of 300 crores of rupees or of 20 crores of sovereigns, the medium of circulation is equally expensive the large quantity of rupees making up for the apparent 'cheapness' of silver. For this very reason, Ricardo had as great an objection to the circulation of silver as to that of gold. His scheme of paper currency was applicable as much to silver as to gold, whichever metal was adopted as a standard of value.

There is the less reason for maintaining this costly circulation of notes printed on silver as it is not necessary. Their inconvertibility is the cause of their exclusive circulation. Their low purchasing power is an index of the want of esteem in which they have been held by the Indian public. Taking the pre-war normal conditions as the basis, the course of the index-number from 1899-1900 to 1913-14 has established this beyond dispute.

The logical step in the establishment of an effective gold standard would be to abolish the inconvertible note printed on silver, to relegate the rupee to the position of a subsidiary token coin and to make the paper-note directly convertible into gold.

Even if gold is issued in the form of sovereigns, a sovereign is too large a unit to circulate generally as currency, the rupee being the most convenient unit for the magnitude of Indian transactions. Conditions have not altered materially so as vitiate his conclusions—since Sir David Barbour wrote :—"I have no doubt that even with a gold standard the people of India would in almost all their transactions prefer to employ silver rupees. It is improbable that a gold coin of less than Rs. 10 would be issued in India and such a coin would be quite unsuited for ordinary Indian transactions. Rs. 10 represented generally much more than a cooly's wages for a month and even if the cooly received his wages in the form of a single coin, he would immediately exchange it for smaller coins."[1]

A definite step in the direction of altering the status of the rupee would be that the ratio[2] in which it is related to the

[1] Sir David Barbour's Minute, 21st June 1892, para 3.

[2] This ratio should be no other than Rs. 15 to the sovereign.

sovereign should be embodied in the section of the Indian Coinage Act which makes the rupee a legal tender and not the section which makes the sovereign a legal tender. In view of Indian conditions, the rupee may be declared a legal tender up to Rs. 50. Once the rupee is definitely given the status of a token coin, it will be possible to reduce its fineness.

While the efforts to introduce rupee-notes have met with commendable success,—on account of the wear and tear to which a paper-note is subjected when it is employed in small retail transactions, it is necessary to renew it often. The cost of this renewal makes it questionable whether a small paper-note is really a cheap circulating medium. For small retail transactions, a metal coin has distinct superiority over a paper substitute.[3]

On the other hand, paper-money has secured a definite place in the Indian monetary system. Various steps taken to popularize notes have led to a steady increase in the circulation. The growth has been striking since the universalization[1] of 5, 10, 50 and 100 Rupees notes, R 10 and R 100 notes particularly being very popular. The new design of the R 10 note is attractive and must increase its popularity. In business centres where the circulation of notes is the largest, transactions are settled by means of notes and cheques. There is no possibility of a metal coin whether gold or silver taking the place of notes or cheques in settlement of transactions.

Even if, therefore, natural means alone are adopted, India provides an ideal field for realizing in practice Ricardo's scheme of perfect currency. While gold would be the standard of value, the currency would consist mainly of paper and tokens.

A definite result of the adoption of the gold standard on a

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[3] New issues of one rupee notes have since been stopped.

[1] Until recently, no notes were legal tender outside their own circle and were payable only at offices of the town from which they were originally issued. This greatly restricted the popularity of the note—issue. In the year 1903, 5 rupee notes were made 'universal' legal tender. In 1910, R 10 and R 50 notes were universalized. In 1911, R. 100 notes became universal legal tender.

natural basis will be to make the monetary use, of the large stock of gold which India possesses, possible. The Indian people are said to lay by gold in idle hoards. If this is true, the only natural plan, by which the people will be induced to part with their 'stores' of gold for profitable employment is to foster the confidence that it would be returned to them when required by them. As soon as the public are satisfied that the notes they hold could be turned into gold readily and without question, their desire to cash them will diminish. This is the mode, which was employed to cure western people of their 'uncivilized' and 'wasteful' gold habit and is the only mode applicable to India.

The actual achievement of the unnatural gold exchange system has been a steady increase in the imports of gold connoting an increasing taste [2] for gold and has simultaneously fostered the most uneconomic consumption of all this gold. The gold standard functioning on the normal basis, it is inconceivable that, of 60 million sovereigns absorbed by the public during the 12 years ending the 31st March 1913, an amount little less in value than the new coinage of rupees during the same period, only a trifle should have been put to monetary use.

While the gold standard need not involve a gold circulation, the only guarantee that gold will *function* as the standard of value is complete convertibility. This is the fundamental point in which the Indian system departs completely from the model and all the unnatural features which it presents may be traced to this single source.

Should the sovereign be the future gold unit of value? If the jealousy of the British Treasury is insuperable and the coinage of the sovereign in India is impossible, India can import sovereigns without difficulty from England as she has done in the past. The best plan, however, would be to abandon the sovereign itself as

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[2] This may be taken as an index of the distrust of the rupee.

Note the imports of gold in the table of imports and exports of merchandise and treasure at the end. Confidence in the rupee is not likely to be strengthened if a convention is set up that its 'ratio' may be altered to suit exigencies.

the unit of value and adopt a new coin the lowest weight of which should be carefully fixed with reference to the ratio, Rupee one = 7.53344 pure gold. A gold *mohur* of the same weight and fineness as that of a sovereign would be probably suitable.

While complete convertibility should be the basis of the Indian system, it may be advisable to raise the lowest unit for convertibility, to meet the apprehensions of those whose unreasoning alarm at the possibility of the Indian people taking to a gold currency has been mainly responsible for the unnatural gold exchange system foisted upon India. In this case, I should suggest that the new coin, the lowest unit of gold thus issued, should be 376.6720 grains pure gold the equivalent of 50 Rs. A gold coin $3\frac{1}{3}$ times the size of a sovereign has no chance of remaining in active circulation. Complete convertibility on the other hand will provide the real solvent for the tendency to hoard which the unnatural gold exchange system has done so much to aggravate.

NOTE ;—The following outline will enable comparison at a glance of the essential features of the two systems.

Ricardo's Scheme.	Indian System.
(i) Circulation should be of paper maintained at par with the standard whether gold or silver.	(i) Circulation was of silver maintained at par with gold:
(ii) Complete convertibility was the basis of the system.	(ii) The note printed on silver was inconvertible.
(iii) It relied upon the form in which gold was issued to prevent it from entering into circulation.	(iii) It depended upon the inconvertibility of this note printed on silver to drive gold from circulation.
(iv) The discretion of controlling the quantity of circulation was on no account to be entrusted either to the State or to the Bank.	(iv) The State completely controlled the circulation.
(v) The Mint must remain open as a safeguard against the possibility of any abuse by the issuers of currency.	(v) The Mint was closed to the coinage either gold or silver.

THE EVOLUTION AND WORKING OF THE GOLD EXCHANGE STANDARD.

CHAPTER VII.

THE RUPTURE OF THE PAR OF EXCHANGE BETWEEN GOLD AND SILVER COUNTRIES—THE DIFFICULTIES OF TRADE—INTERNATIONAL BIMETALLISM WAS THE FIRST SOLUTION SUGGESTED – THE GOLD EXCHANGE SYSTEM—THE PARITY BETWEEN GOLD AND THE SILVER COIN INSTEAD OF GOLD AND SILVER BULLION—THE SILVER COIN AND THE SILVER MARKET—THE MECHANISM OF COUNCIL BILLS AND REVERSE DRAFTS.

The gold exchange standard had its beginning, not in a currency doctrine as that of Ricardo, nor exactly in the peculiar difficulties of the Indian Government who, when they inaugurated the currency reform in 1893 by closing the Mints to the coinage of silver, had no idea of the lines on which it actually developed, their intention being to introduce the complete gold standard at the earliest suitable moment. The genesis of the system may be traced to a definite problem which the gold standard countries had to face and for which the solution they had proposed was a scheme of international bimetallism, though afterwards they were quick to adopt the Indian system when the success of the Indian experiment was established.

The confusion brought into the currency system by the double standard consisting of both gold and silver had inclined commercial opinion in favour of a mono-metallic standard consisting of gold. England was on an effective gold basis from 1821. Among the continental countries, Germany was the first to adopt the gold standard in 1873. France and United States immediately followed. The other industrial and commercial nations one by one adopted the gold basis.

While, under the double standard, gold and silver did not circulate simultaneously as currency in any country, the ratio between the two metals was fairly stable on account of the fact that the Mints of a number of important commercial countries were open to the coinage of both. Germany took the important step in 1873, of demonetizing silver and started the great change in the relative value of gold and silver. From this year,—a 'black year' in the history of silver—commenced the depreciation of silver in terms of gold which brought about serious difficulties in the dealings of the gold standard countries with the silver-using countries of the world.

The gold standard countries comprised all the advanced commercial and industrial nations. Silver-using countries were an important market for the products of their industry. With silver depreciating progressively, the gold equivalent of the silver prices realized must diminish at the expense of the profits of industry. Nor was this the only consideration. A fear was entertained that the falling silver would enable the producer in the silver-using countries to reduce his gold-prices giving him a command over the foreign markets and thus afford an opportunity to the silver countries for increasing their exports to the detriment of gold countries, with the resulting benefits which should accompany expansion of trade.[1]

[1] "There were strong hypothetical reasons for believing that these tendencies would prevail if it were true that the producer (i. e. of silver-using countries) could obtain labour at the old wages in silver. If he continued to sell at the old gold price he would find, for instance, if silver declined ten per cent. that an unearned profit of this amount over and above his usual profit was left in his hands. If he found that competitors in gold countries were controlling the market, it was in his power to cut under their prices by throwing away a part of the profit due to the decline in silver, while still retaining a large part of it. Upon the belief that this would be the course generally pursued by exporters from silver countries and that they would, thereby, greatly increase their market, was based the fear that in certain lines of manufactures they would destroy competitors in the gold countries or, at least impose upon them the necessity of sacrificing profits or reducing the wages of labour" Conant: Money and Banking, i p. 346.

Not only was the export trade of the gold countries thus considered to be jeopardised, the progressive depreciation of silver also made it hazardous for the owner of capital in a gold country to invest it in a silver country. The gold countries comprising the richest nations of the world had surplus capital seeking investment. The capital invested in a silver country must shrink with the depreciation of silver. At the same time the gold equivalent of the return from the capital must diminish. The danger therefore was that the shrinkage of capital might wipe away all the gold profit earned in this way.

A remedy for these evils was at first sought in a project of 'international bimetallism.' The United States of America in spite of the adoption of the gold standard had not been able to overcome their preference for the double standard. The Act of 1873 which established the gold standard for the United States was the 'crime of 1873' according to some. The depreciation of silver on account of the adoption of the gold standard by all the important countries presented special problems in relation to the silver industry of the United States which next to Mexico, were the largest producers of silver in the world. A 'Silver Commission' appointed in 1876 reported in favour of the restoration of the double standard and the unrestricted coinage of both metals.' There was however a minority report not favouring this action without the concurrence of other nations. The United States of America have, since, played a principal part in bringing about international conferences for joint action, which, however, met without achieviug practical results, in 1878, 1881 and 1892.

The success of the Indian experiment, however, supplied the remedy which was sought and the Commission on International Exchange [2] which met in London in 1903 adopted the following resolution.

"That the adoption in silver-using countries of the gold standard on the basis of a silver coin of unlimited legal-tender, but with a fixed gold value, would greatly promote the development of those countries and stimulate the trade between these

[2] Mr. Conant was the American representative on this Commission.

countries and countries already possessing the gold standard, besides enlarging the investment opportunities of the world."

There was not absolute agreement among the various powers in regard to the best means of reaching the result, but in most cases it was agreed that the ratio of 32 to 1 should be adopted as the relation between the gold standard and the new silver coins. This fundamental resolution was an indorsement of the principle of the gold exchange standard. It remained to put this resolution in force in as many countries and dependencies as circumstances permitted.

Since the Indian system had been perfected and its provisions generally known, it was immediately adopted in a number of silver countries. "In 1903, the Government of the United States introduced a system avowedly based on it into the Philippines. Since that time it has been established, under the influence of the same Government, in Mexico and Panama. The Government of Siam have adopted it. The French have introduced it in Indo-China. Our own Colonial Office have introduced it in the Straits Settlements and are about to introduce it into the West African Colonies. Something similar has existed in Java under Dutch influences for many years."[3]

The scheme of international bimetallism was a well-reasoned effort on the part of economists and statesmen to find a fair solution of the difficulty. It approached the subject of regulating the value of silver from the side of the demand. By creating an unlimited demand for silver at a fixed ratio to gold through opening the Mints to free coinage on private account in all the important countries, it was sought to maintain a fixity of value between gold and silver bullion. The experiment tried on a limited scale in the Latin countries and the United States failed. The wider union of the leading nations could not be brought about.

The gold exchange standard approached the problem from the other side—from the side of the supply. 'It was no longer a proposition to secure fixity of value between gold and silver

[3] Keynes, Indian Currency and Finance, p. 35.

bullion, but between gold and silver coins. Therein lay a marked distinction.'[4]

By taking the extreme step of closing the Mints in 1893, the Indian Government established the important fact that the gold-value of a silver-coin could be raised higher than that of its silver-contents, by limiting its quantity. The possibility thus opened out that the value of the silver-coin need not follow the fluctuations of the value of the silver bullion, provided its supply was carefully controlled. This obviously involves important limitations. The mistakes which have occurred in the past may be traced directly to an imperfect appreciation of the limitations involved.

Without dethroning the rupee as a standard of value—a silver coin of particular weight and fineness—the gold exchange standard attempted to give a fixed gold-value to it by limiting its quantity. We have seen how the attempt to give a fixed gold value to the rupee shaped itself in practice in an attempt to give a fixed rupee value to gold by means of council bills and reverse councils.

Ignoring practice for a while and examining the question in its central aspect, the Indian experiment established that a silver coin may be made to command a gold-value higher than that of its silver contents. The premium which the silver coin will command *above* its contents will depend upon the extent to which its quantity can be controlled.

But the silver coin commands this premium *as a silver coin.* It rests upon the foundation of silver. A substantial sinking of the foundation must take the silver coin with it. A substantial rise in silver also will carry the silver coin with it.

The depreciation of silver can be met by an artificial appreciation of the rupee by limiting the quantity. This can be done by a refusal to add new rupees to circulation by limiting or suspending sales of council drafts. If the depreciation is serious a substantial reduction of circulation involving an actual withdrawal of rupees would be necessary.

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[4] Conant. Money and Banking, i p. 401.

Thus fortunately in the year 1907-08, a depreciation in silver exactly coincided with an unfavourable trade position. The crisis began with a fall in the value of silver which shewed a tendency to drag the rupee with it.[5] A mere refusal to add new rupees to circulation by suspending council bills was not sufficient. An actual withdrawal of rupees from circulation became necessary. In the circumstance, the failure of the monsoon of 1907 could not have been more opportune. It seriously affected the volume of Indian exports and the stimulated imports of silver on account of a fall in its value, having actually turned the balance of trade against her, created a demand for Reverse Councils. By meeting this genuine demand for transfer of funds to England, the necessary withdrawal of rupees from circulation was simultaneously effected.

This was however no more than a fortunate coincidence. Too much emphasis cannot be laid upon one fact that council bills and reverse councils are primarily modes of transferring funds between England and India, and can only be used when there is a demand for such transfer. In the absence of such demand they must necessarily cause speculation and gambling. The year 1920 has provided a lesson which will not be easily forgotten.

It is possible to conceive a serious depreciation in silver which might take the rupee with it, independently of the trade position which may be simultaneously extremely favourable. A withdrawal of rupees from circulation to neutralise the depreciation may be urgent while the remedy provided by reverse councils in the absence of a demand for them would not be available in this contingency.

The crisis of 1920 provides a striking illustration. After reaching the peak in February, silver came tumbling down and necessarily took the rupee with it. The only way to counter-act this depreciation was a large withdrawal of rupees from circulation. The trade position, however, was favourable.[6] The error

[5] The depreciation began in middle of October 1907. The effect on Indian exchange was felt early in November.

[6] Subsequently no doubt it became unfavourable, principally because

of these sales of sterling drafts lay in the fact that the trade position was ignored and the sales were forced upon a market which had no need for them and thus only promoted speculation without an example in history.

Council bills while they meet a trade demand for transferring funds from England to India—which can occur when the balance is in India's favour—also operate by adding rupees to circulation. Reverse Councils on the other hand meet a trade demand for transferring funds from India to England—this will occur when the balance is against India—and also operate by withdrawing rupees from circulation. The use of Council Bills and Reverse Councils in giving a fixed gold value to the rupee will depend upon the coincidence, which can only be fortuitous, of a necessity depending upon the silver position to augment or diminish the rupee circulation, with the primary purpose they serve in relation to the trade position of transferring funds between England and India.

The fundamental fallacy of the gold exchange standard with its reliance upon the mechanism of council bills and reverse councils to cure all ills of the rupee exchange lies in the implicit acceptance of this coincidence. It ignores the silver position completely which will ultimately govern the value of the rupee and associates the fluctuations of the rupee exchange entirely with India's trade balance.

The gold value of the rupee converted into sterling gives the gold par of the rupee and sterling. The rate of exchange is rarely coincident with this point. But it is the fulcrum about which the rate of exchange moves. The direct influence exercised by the balance of trade is to determine whether it will lie above or below this point; and even then, the divergence cannot exceed a small fraction representing the risk and cost of shipment of bullion. Assuming this point to be fixed, strength in exports will result in a strong exchange ranging above this point. A

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the Reverse Councils were actually a bounty upon imports though in intention they were never so. In the first period, however, it was definitely favourable.

weak export trade will result in a weak exchange and in that case, it may drop below this point, the limit of the fall, however, being a small fraction representing the risk and cost of shipment.

After due allowance is made for the complication introduced, since the war, by the fluctuation of sterling in terms of gold, while the movement of the rate of exchange *about* this point will respond to the movement of trade, the movement of the point itself will depend upon the position of silver modified by the influence of the limited action of the principle of limitation of quantity.

What is important to realise is that a 'weak' exchange need not always be associated with an unfavourable balance of trade. A serious depreciation of silver may carry the rupee with it in spite of the trade position favourable or unfavourable. And then reverse councils may offer no remedy.

The gold exchange standard with its goal of a fixed gold value of the rupee and its reliance upon the mechanism of council bills and reverse drafts to attain it, assumes a comparative stability in the movement of the price of silver. For ordinary fluctuations, it depends upon the accidental correction provided by an addition to or withdrawal from the rupee currency implied in a demand for council bills and reverse drafts. For serious fluctuations in the price of silver it can provide no remedy. And yet it was devised primarily to save India from the 'disastrous' consequences of the 'serious' fluctuations which have been periodically a feature of the silver market since 1873.

Mr. Conant has admitted that 'the gold exchange standard in its theoretical application, must take some account of the market value of silver, although it furnishes means of guarding against the fluctuations of this value.'[1]

The Indian experiment which has served as the authority for the introduction of the gold exchange standard must also be considered authoritative as regards the further experience gathered, that *serious* account must be taken of the market value of silver and that the rupee or sterling drafts do *not* provide the correct machinery always for guarding against fluctuations in this value.

[1] Money and Banking i p. 390.

For a gold exchange standard working in its theoretical completeness, the fixed gold value of the rupee will depend upon the extent to which the fluctuations in silver can be cancelled by controlling the circulation of rupees. The depreciation of silver will bring about a depreciation of the rupee also unless the depreciation can be neutralized by reducing the quantity.

The crisis of 1920 brings out forcibly the extent to which a mere contraction of the currency can counteract a serious and fundamental depreciation of silver. An official estimate placed the normal pre-war circulation of rupees at 180 crores of rupees. Mr. Shirras places this circulation for the year 1919 at 228 crores and estimates the entire rupee and note circulation for the year 1913 at 238 crores and for the year 1919 at 362 crores. The sale of reverse councils resulted in a net withdrawal of 42 crores from circulation. It was an inroad without an example upon the resources of the market. Yet it could not materially affect the fall of the rupee, which took place in spite of the withdrawal.

The fixed gold value of the rupee will not be proof against a serious depreciation of silver. It is also not proof against a serious appreciation of silver which in fact would lift the rupee off its base altogether. It was this extraordinary situation which actually arose and which the Smith Committee was asked to examine. Panic-stricken, the Committee raised the fixed gold value of the rupee from 1/4 to 2/, with the avowed object of placing it beyond the reach of any appreciation of silver, specially examining the possibilities of such appreciation with relation to the melting points of the silver coinages of the United States and France.

With the price of silver at 27d—this was about the quotation in 1899—the gold value of the silver contents of the rupee would be about 10d. To appreciate the contraction of the rupee currency which was necessary to secure the premium of only 6d. above this for the rupee, we need only study the bank rate, especially for the years from 1896 to 1899. A prominent merchant, then declared that although the bank rate was nominally 12 per cent. money was not obtainable even at 18 per cent. on gold and 24 per cent. on silver. A deputation of leading Bombay merchants complained to Lord Curzon, "One of the serious results of the currency policy of the last five years has been a recurring stringency of the money market so protracted and so severe as to seriously hamper the operations of trade and the marketing of produce and with the approach of another exporting season, we cannot but view with apprehension the possibility of another period of financial strain."[1]

One of the boons which the Smith Committee coupled with the high gold value of the rupee was the low price level of commodities. But the cheapness of commodities properly examined does not mean their abundance, but the scarcity of the rupee and indicates the bankruptcy to which trade and industry must be driven before the 2/ ratio can be realized.

The depression in the leading Indian industries has a direct connexion with the present monetary policy which appears to have been designed to secure a level of exchange as high as possible, though the 2/ ratio is considered impracticable.

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[1] The Report, the Bombay Chamber of Commerce, 1898.

THE NEW CURRENCY COMMISSION.

CHAPTER VIII.

THE TERMS OF REFERENCE—THE GENOA SCHEME—THE GOLD EXCHANGE STANDARD—THE FUTURE RATIO.

As these pages were going through the press, an announcement was made by the Viceroy, appointing a Royal Commission, "to examine and report on the Indian exchange and currency system and practice, to consider whether any modifications are desirable in the interest of India and to make recommendations." The terms of reference are wide and should permit a thorough examination of the problem in all its aspects.

While little distrust need be felt about the personnel of the Commission, the inclusion of Sir Henry Strakosch with his Genoa associations is significant indicating the leanings of the Finance Member towards the Genoa scheme the merits of which have been canvassed in his public utterances.[1] The system rests upon the establishment of "gold centres" in which, for convenience and economy, the world's reserves of international currency would be concentrated. If other countries maintained reserves of gold at all, it would be not because they required them for their own purposes, but because, being unable or unwilling to take a leading part in the maintenance of an international gold standard, they were expected as a condition of membership of a world currency system either to make a direct money contribution to the cost of a central gold reserve or to suffer, for their own and the general advantage, the inconvenience and expense of having a portion of their resources locked up in unproductive form.

Such a 'world currency system' however depends for its success upon world co-operation, which does not exist at present.

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[1] The speech to the Associated Chambers, 3rd Dec. 1923; the speech to the Bombay Chamber of Commerce, 2nd July, 1925.

The project of international bimetallism, it will not be forgotten, also failed for lack of international co-operation, whatever its advantages might have been theoretically. The common sense of the Indian financiers at that time resisted the persuasion of those who urged the project supported as it was by the authority of the United States of America and France. We may have little doubt, on the present occasion also, common sense will prevail.

The fundamental problem which the Commission has to solve is the adoption of a gold standard on a definite basis. This involves the formulation of definite measures in the light of which the issue frequently raised by the Finance Member about a gold standard and a gold circulation has no meaning. As far as India is concerned, the gold standard may or may not mean a gold circulation. But it does mean that the rupee must cease to be the monetary standard and must be definitely and effectively related to gold.

The claim of the gold exchange standard as a system in the interest of India will have to be rigorously scrutinised. As a monetary system, has it secured a stable price-level ? As an exchange system, has it secured a stable exchange ?

The primary object of a monetary system is to secure a stable price-level. When America was practically the only country on a gold standard, the violent fluctuations in the value of gold led some to oppose a return to the gold basis and substitute for it some standard of value based upon index numbers. The more practical view, however, prevailed in England. With the restoration of the gold standard in England and the return of a number of other currencies to a gold basis, the probability that gold prices will be comparatively more stable is considerably increased.

While this would no doubt be true for a definite gold basis, the assumption by the Finance Member [1] in the return of India to a gold exchange basis, 'of the promising prospect that India will be able to secure stability of the exchange value of the rupee

[1] The speech to the Bombay Chamber of Commerce, 2nd July 1925.

without sacrificing or seriously risking the stability of internal prices,' is not justified. The one incontestable result of the working of the gold exchange system before the war was that 'fixing' exchange in terms of gold has involved 'unfixing' the rupee in terms of goods. A stable exchange was obtained at the expense of a stable price-level.

The reason for this is not far to seek. The gold exchange system, as a system, sets out to achieve a stable rate of exchange only and confines itself to measures which would secure this. It has nothing to do with the 'internal value' of the rupee nor with measures which will place this on an effective basis. The consequence of this is that as far as the 'internal' value of the rupee is concerned, it remains on an indefinite basis, with its inevitable reaction upon internal prices.

Has it even achieved the only objective it has set before itself—a stable rate of exchange? The system was designed primarily to save India from the 'disastrous' consequences of the 'serious' fluctuations which have been periodically a feature of the silver market since 1873. Its fixity of exchange, however, is not a cure for the instability of silver, which, on the contrary, has been found to be destructive of its very existence.

It cannot save the Government from the financial embarrassments, on account of the serious fluctuations, whenever they occur, in the price of silver for which it was primarily devised. Nor has it any advantages to offer, to the trade whether export or import. In business, the breath of life is confidence; and what is required for confidence is certainty. In times of crisis when confidence is needed most, the system has worked with a fatal uncertainty which is further increased by the uncertainty of uninformed State intervention however well-intentioned it might be. Trade might have forgiven but can never afford to forget the year 1920.

As a system, it is not in the interest of the Finance Department, nor the exporters, nor the importers, nor in the interest of India as a whole which demands a stable price-level rather than a stable exchange. The rising price-level which was a feature of the working of the gold exchange standard, was only an index of the distrust of the rupee which was mainly responsible for its diminishing purchasing power.

This distrust of the rupee must be held responsible for another and a serious economic menace if its true significance is properly realised.

A feature of the working of the gold exchange system was the large and increasing absorption of gold bullion and coins by the public, showing an increasing taste for gold as a 'store' of value. The whole organisation of credit in India is based upon the rupee which has proved an unstable foundation for sound progress. The gold habit has thus been fostered at the expense of the banking habit.

The entire banking progress depends upon a direct access being provided to these idle hoards of gold. The only condition on which the people will be induced to part with their 'stores' of gold for profitable employment, is to foster the confidence that it would be returned to them when required by them.[1] This was

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[1] The *Statesman* thus commented in an editorial, (29th Sep. 1925)

"The outstanding feature of the economic situation is that this country is devoting itself to the accumulation of the precious metals, not for use, but for hoarding......For the gold that India is content to possess Europe would use. It is so much potential capital. Europe would make it capital. The mere possession of gold gives a glow of confidence to those whose economic education has not been carried far. But this is not enough. In these days the value of the precious metals lies in their use, not in mere possession. By circulation this power is increased many times. India possesses a mighty store which she puts to no public service whatever. The import of gold in 1924-25, we were recently told by the Controller of Currency, was Rs. 73.78 crores, nearly double the import for 1922-23, the previous record year......there is thus an abundance of the precious metals in the country. How can it be turned to account for the general good without alarming public confidence ? The peasant's eyes must be opened as were the eyes of the English in the eighteenth century. He must be taught that there are kind men called bankers and industrialists who will look after his precious metals for him, relieving him of the abiding terror of thieves, will pay him an annual fee for the privilege of how the western people were cured of their gold habit and is the only method applicable to the Indian people.

The future safety of the Indian economic progress depends upon gold being made the direct foundation of the entire currency and credit organisation. With the gold standard functioning on a natural basis, it is possible that part of gold may be used as currency. If this is so, it is preferable that gold should be used as currency than that it should be stored away in idle hoards.

The test of the adoption of the gold standard, however, will be that the rupee ceases to be the monetary standard. Such a demonetisation of the rupee need mean nothing more than the demonetisation of the silver dollar of America. The rupee has a useful part to play in the monetary circulation and its usefulness may be enhanced by adopting rupee certificates on the analogy of the silver certificates of America. But gold and gold notes must become the pivot of the monetary sytem of India.

What should be the future ratio between gold and the rupee ? There are those who would favour the level of 1/6 (gold) which the rupee has reached already.

But we cannot afford to forget that only in August 1924 the rupee was but 1/4 gold. There is nothing in the movement of the price-level to warrant such a rise as has actually occurred. Should the rise prove to be temporary, [1] the fate which attended

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looking after it, and *restore it to him when needed.* Industrialists have been known not to restore what was entrusted to them; and even banks have broken faith. But for the good of the country and his own good, the uneducated Indian must be taught to substitute investment for hoarding. It will be a profound and salutary change of habit."

The crux of the difficulty, however, lies in the portion italicised. Until this is ensured, the gold habit will continue to be an economic menace to India.

Even the civilised countries of the west have preferred their savings and investments *in the form of gold*, as the silver countries know to their cost. The very existence of the gold exchange system is due to this partiality of the West for gold.

[1] The probability is very strong, that the rise in the gold value of the rupee is nothing but the reflex action of the fall in the rupee value of

the recommendations of the Smith Committee provides a warning which cannot be lightly ignored. The new Commission will have to exercise considerable caution and resist the temptation of weakly acquiescing in what may be regarded as a '*fait accompli*',—a danger, which is real, considering the facile tradition of currency commissions in the past. From this point of view, the appointment of the commission may be regarded as unfortunately timed.[2]

Doubts may be reasonably expressed whether the rupee is not overvalued in the exchange market. Bombay favours return to the old level of 1/4 in the interest of trade in general. It should be certainly regarded as remarkable that, despite the upheaval caused by the war and the series of deficit budgets, the rupee should be standing at 12½ per cent. above its pre-war parity.

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gold. This fall may prove to be only temporary. in view of the demoralised condition of the Indian gold market, which may be a passing phase. The staggering imports of the gold bullion for the years 1922-23-24 probably represent an unnatural reaction after a period extending over more than five years when India was not only starved of gold but had to find gold for export. It will be a blunder to regard this as the normal condition for the future.

[2] In this connection, it may be noted that the Calcutta opinion regards the appointment of the commission not simply inopportune but premature. The financial correspondent of the *Statesman* (20th Sept. 1925) thus comments :—

"It is announced that the currency commission will commence their labours in India in December and will conclude their sittings in England next year; so the report may reasonably be expected by June or thereabouts. It is still considered on this side that the appointment is premature from the purely trade point of view, and it is unfortunate that political considerations have forced the hand of Government in this matter. The Associated Chambers for two years in succession passed resolutions deprecating the appointment of a commission until mercantile opinion in India was more or less convinced that the time for the stabilization had come. The idea was that it would be unnecessarily disturbing to trade for a commission to be deliberating on the question of exchange, while the mercantile community themselves were undecided as to what system or policy was really needed. In other words the proposed remedy should primarily come from within and not from outside."

The work of the currency commission in this respect will be found to have been prejudiced considerably by some pronouncements of the Finance Member which may be regarded as unfortunate in view of their possible reaction on the exchange market in its present uncertain condition. On the one hand, nothing could be saner than his words to the Indian merchants' Chamber (3rd July 1925), "Some of the complaints against the conclusions arrived at by the Babington Smith Committee, and the action taken by the authorities upon their report seem to him to be misconceived. That it was a mistake and entirely premature at that time to attempt to restore the stability to the exchange value of the rupee, had been abundantly proved by subsequent history. This mistake made in 1920 was not a mistake of changing the pre-war ratio which had ceased to exist, but the mistake of making a premature attempt to fix a new ratio; and it was against a repetition of such attempt so long as there was reason to regard it as premature, that he had hitherto held out." On the other hand, he declared, it was the definite intention of the Government of India not to allow the rupee to rise above 1/6 gold while no sanctity was to be attached to the pre-war ratio, thus permitting a conclusion to be drawn about his probable leanings towards 1/6 ratio though really in intention this might never have been so,—a conclusion which is reinforced by the doubt he openly expressed as to the feasibility of returning to the pre-war ratio. Thus he said, he was unable to agree that, "so long as a considerable raising of prices all round must inevitably result, anything would be gained by an attempt to lower the ratio now to 1s. 4d., whether it were done suddenly or by graded stages. It was not only the prices of imported goods, or the prices of goods such as wheat and rice having a world price, that were affected by exchange; all internal prices connected with or entirely disconnected from imported goods, or goods having a world market, necessarily tend to move up and down in accordance with the value of the counter which was used as the medium of exchange."

This however confuses the goods value of the rupee and its gold value. The real value of the rupee is that which would be indicated by its purchasing power in terms of commodities. Gold is only one among the many commodities and still a very unstable commodity. Temporary causes might bring about a fluctuation of the rupee in terms of gold with the corresponding reaction in the exchange market,—which, however, may not be justified by any corresponding actual change in its purchasing power in terms of commodities. If the progress of the rupee in terms of gold and goods is compared, the conclusion that the rise in terms of gold specially since the year 1924 has been too precipitate will be rebutted with difficulty.

This conclusion would be borne out by the temporary distress in which important Indian industries find themselves at present. Thus the Indian Iron industry had to ask for and obtained a bounty and the most cogent argument urged by them was the sudden rise of exchange. The plight of the cotton industry needs scarcely any comment. The coal industry is in difficulty. Even the tea industry is not free from trouble. It will be difficult to resist the conclusion that the rise in exchange is not warranted by the price and wage movement which ought to give the real trend of the value of the rupee, though unfortunately in the absence of a reliable index-number which would give a continuous and comprehensive record for the whole of India of the movement of the prices of commodities and services, this has escaped the general attention.

The safest level would be the normal pre-war 1/4 (gold) and the Indian Government would be well-advised not to commit themselves to a ratio for which subsequent events may prove too strong, forcing an ignominious climb-down. It speaks well for the sanity of the Cunliffe Committee which sat at a period as abnormal as that during which the Smith Committee investigated the Indian problem that a second investigation and a statement of the English currency policy were not required. The vision and foresight of the Cunliffe Committee have been vindicated, simply because its conclusions were based upon the conception of normal times as actually warranted by the period before the war. With the rupee standing at 1/6 (gold), the Government of India might have attained the qualified success of a man who, having climbed a precipice, dare not climb higher nor dare retrace his steps—and yet the knowledge ought to be present in the mind that safety lies in retracing his steps.

A hope may be expressed that the problem will be approached with an open mind. In the case of the Government of India, it is not an unreal danger that their prestige might be considered to have been involved,—however unconsciously this might be,—in returning to a ratio from which a deliberate departure was made. But in a scientific subject considerations based upon prestige or politics ought to have no weight. The appeal of the Finance Member in his speech to the Associated Chambers (3rd Dec. 1923) has a significance for all, whether the Government or the trade,—

"As I said at the beginning, it is only by close co-operation between the Government and the commercial and business community that a right judgment can be reached and right action taken in matters affecting the commercial and business life of the country. In questions so technical and at the same time so vital to every member of the community as currency and exchange, politics and political motives should not intrude. This is not to say that finance and financial policy can be or should be divorced altogether from the political sphere; on the contrary I believe that on sound financial principles and administration depends more almost than on anything else the happy emergence of India as a self-governing Dominion of the British Commonwealth of Nations. For this reason the problems we are discussing deserve the close attention and study of all who are working for India's political future. But they must be studied scientifically and single-mindedly as subjects of a highly technical and complex nature, not simply as a happy hunting ground in which to find weapons for attacking the Government. If political motives intrude into the discussion of currency and exchange problems, they serve only to darken counsel at a time when the one great need of all of us in this matter may be expressed in the words of Goethe on his deathbed: 'More light! more light!'"

APPENDIX.

The Table of Imports and Exports (private) of merchandise and treasure.

Year.	Imports of merchandise. Rs. (lakhs.)	Exports of merchandise Rs. (lakhs.)	Net imports of gold. Rs. (lakhs.)	Net imports of silver. Rs. (lakhs.)
1873-74	33,83	54,98	1,38	2,49
74-75	36,22	56,36	1,87	4,64
75-76	38,51	56,21	1,55	1,55
76-77	35,37	60,96	21	7,28
77-78	39,33	65,19	47	14,73
78-79	36,58	60,89	—90	4,06
79-80	39,75	67,17	1,75	7,97
80-81	50,31	74,53	3,66	3,92
81-82	46,99	81,90	4,84	5,38
82-83	50,00	83,40	4,93	7,55
83-84	52,70	88,12	5,46	6,44
84-85	53,15	83,20	4,67	7,32
85-86	51,81	83,83	2,76	11,63
86-87	58,66	88,43	2,18	7,19
87-88	62,38	90,47	2,99	9,32
88-89	66,58	96,98	2,81	9,33
89-90	66,56	1,03,40	4,62	11,00
90-91	69,03	1,00,14	5,64	14,21
91-92	66,59	1,08,04	2,41	9,17
92-93	62,60	1,06,53	—2,81	12,89
93-94	73,96	1,08,81	64	13,76
94-95	70,17	1,08,81	—4,97	6,37
95-96	69,32	1,14,27	2,53	6,60
96-97	71,79	1,03,91	2,29	5,86
97-98	69,27	97,54	4,91	8,43
98-99	68,38	1,12,72	6,50	3,97
1899-1900	70,71	1,08,98	9,44	3,57
1900-01	76,28	1,07,37	7,57	1,42
01-02	81,52	1,24,46	4,93	6,25
02-03	78,79	1,28,82	9,46	6,98
03-04	84,83	1,52,96	16,33	7,46
04-05	96,68	1,57,51	18,11	6,83
05-06	1,03,09	1,61,72	9,45	5,02
06-07	1,08,31	1,76,92	14,79	6,70
07-08	1,29,90	1,77,36	17,35	10,03
08-09	1,21,27	2.53,03	4,72	11,96
09-10	1,17,06	1,87,89	21,66	9,37
10-11	1,29,35	2,10,09	23,97	8,61
11-12	1,38,57	2,27,84	37,77	5,29
12-13	1,61,01	2,46,55	37,58	6,57
13-14	1,83,25	2,48,89	23,32	6,24
14-15	1,37,92	1,81,59	8,45	10,01
15-16	1,31,34	1,97,38	4,90	5,57
16-17	1,49,62	2,40,88	4,19	—2,16
17-18	1,50,42	2,42,55	21,45	1,45
18-19	1,69,03	2,53,84	2	6
19-20	2,07,97	3,26,80	10,97	—15
20-21	3,35,51	2,56,38	—9,14	7,42

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