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May 24, 1949

A NOTE ON CHEAP STERLING

Samuel I. Katz

Newspaper publicity in the United States on cheap sterling transactions has become widespread in recent weeks. At the same time, the volume of trading, especially in materials important among American imports from the sterling area, appears to have been expanding. Cheap sterling transactions in wool seem to have become important in American wool imports from Australia in 1948, especially in the latter part of the year. Even earlier, cheap sterling was used in purchases of furs imported from Russia during 1947. The trade has apparently spread rapidly and is now reported to be occurring in hides and skins, tea, rubber, tin, spices, and diamonds as well as wool and furs. This note attempts to bring together available information on this trading, necessarily spotty and often uncertain because of the hush-hush nature of the transactions, and to consider some of the problems raised by cheap sterling trading.

Types of transactions

The types of cheap sterling transactions which have been taking place are varied, numerous and often exceedingly complex. Generally speaking, they seem to be either a form of commodity or exchange arbitrage or of capital flight. The transactions include purchases and sales of foreign exchange and, more often perhaps, interlocking commodity transactions. There is no need to distinguish between exchange and commodity trading, since the latter technique is used primarily to obtain arbitrage-profits and to transfer balances by means of goods where exchange regulations prevent the direct transfer of currency. The list of the transactions below represents a simplified catalog.

Type A-1. Purchase of sterling at a favorable sterling-dollar cross-rate of, say \$3.00 in Paris to buy sterling area goods for re-sale in the United States.

Type A-2. Purchase of transferable sterling balances at a discount for use in buying sterling area goods. The goods could be consumed domestically or resold in subsequent transactions for dollars (Example: Russian purchases of wool).

Type B-1. Sale of transferable sterling balances at a discount to obtain dollars. The dollars could be used in subsequent transactions of Types C-1 or 2. (Example: Egyptian sale of sterling to buy Packards).

Type B-2. Re-sale of sterling area goods for dollars at prices representing a sterling discount. The dollars could be used for subsequent transactions of Types C-1 or 2. (Example: Dutch sale of wool and purchase of Packards for sale to Egypt).

Type C-1. Purchase of dollar goods for resale at premium prices in transferable sterling. (Example: Dutch purchase of Packards for re-sale in Egypt).

Type C-2. Retention of dollars obtained from Types B-1 or 2 transactions as dollar balances in the United States.

The actual transactions which have been occurring are in fact much more complex than the list suggests, since several different types are combined before a single trading chain is terminated. This trading usually incorporates both foreign exchange purchases from dealers and a whole series of commodity trades which is terminated when the funds are in the currency desired.

One typical transaction effected within existing legal restrictions, which is reported in The Economist states that a Dutch exporter buys Australian wool with transferable sterling, sells the wool in the United States for dollars (Type B-2), buys dollar sugar, sells the sugar for transferable sterling at a premium in Norway (Type C-1), and is paid with transferable sterling from a Norwegian to a Dutch account. 1/ A second type of transaction quoted involves sale of Australian wool for dollars at a port like Aden (Type B-2) and the transfer of the dollars into local currency at the premium rates quoted on the continent (Type A-1). 2/

Parallel deals brought together, perhaps through a Swiss or Dutch broker, have also been reported; the two-sided aspect of the actual trading, typical of most transactions, is illustrated by the following hypothetical example. An Egyptian might sell transferable sterling at a discount for dollars (Type B-1) to a Dutchman and therewith buy American cars for sale in Egypt at premium prices (Type C-1), the profit being retained by him in Egyptian pounds or in sterling. At the same time, the Dutchman buys Australian wool (Type A-2) and sells it for dollars (Type B-2). The Dutchman may then purchase dollar goods for sale ultimately at a premium in sterling (Type C-1) or retain the dollars in New York (Type C-2).

It is bewildering to follow the maze of possible transactions; but the problems associated with cheap sterling can be treated more systematically by studying the sources of dollar and sterling funds.

#### Source of dollars

The source of dollars is easy to explain. The availability of dollars is due to the offerings of transferable sterling at premium rates for the dollar. 3/

The source of dollars in the early days of this trade, however, is somewhat obscure, in part because it is difficult to determine when cheap sterling transactions became important. U. S. statistics of wool imports from Australia invoiced outside Australia ( Table I on following page) show that

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1/ April 2, 1949, p. 626.

2/ This type, however, contains an element of illegality in that dollar payments in the sterling area are not permitted. Financial Times, March 12, 1949, p. 4.

3/ New York quotations on transferable sterling, which have been hardening in recent months, have ranged between \$3.20 to \$3.50, depending on the nationality. Italian transferable sterling was quoted in April at \$3.50, Dutch at \$3.40, Siamese at \$3.30 and Czech at \$3.20. (See Economist, April 16, 1949, pp. 717-8

the earliest arrivals were reported in February 1948 and that the volume increased rapidly to a peak in the month of September. Thus, the beginning of cheap sterling imports in wool, which is one major commodity involved in the trade, could not have gotten underway earlier than the latter part of 1947 and were not heavy before the early part of 1948.

Table I.

U. S.: Imports of Australian wool and imports of Australian and New Zealand wool and Indian skins; in 1948, by months.  
(in thousands of dollars)

	<u>Australian wool</u>			<u>Australian and New Zealand wool and Indian skins</u>		
	Origin Australia	Invoiced outside Australia	Percent "invoiced outside"	Total country of origin	Invoiced outside country of origin	Percent "invoiced outside"
Jan.	4,307	0	-	7,715	5	.1
Feb.	8,294	177	2.1	10,964	177	1.6
March	20,419	506	2.5	22,844	567	2.5
April	5,923	229	3.9	8,218	263	3.2
May	4,197	458	10.9	5,928	554	9.3
June	10,022	408	4.1	11,391	518	4.5
July	8,062	578	7.2	10,723	1,058	9.9
August	11,274	1,246	11.1	13,269	1,789	13.5
Sept.	2,555	2,099	82.2	4,012	2,457	61.2
Oct.	4,334	1,633	37.7	5,283	2,146	40.6
Nov.	2,844	899	31.6	4,899	1,183	24.1
Dec.	6,737	671	10.0	7,990	923	11.6
Total 1948	88,968	8,904	10.0	113,236	11,640	10.3

Source: Report of Office of International Trade, Department of Commerce, from basic data of Bureau of the Census.

There is evidence that Russia may have been an important early source of the dollar offerings. Comparison of columns (1) and (2) of Table II (on following page) reveals that Russia's reported dollar balances declined sharply in the last 9 months of 1948, despite a large export surplus with the United States. The extent of the discrepancy between changes in dollar balances and the Soviet's quarterly trade balance, shown in column (3) confirms the fact that the unexplained difference was much greater after April 1948 than before.

Table II

U.S.S.R: Dollar balances and trade surplus  
with U.S., quarterly, 1946 to 1948.  
(in millions of dollars)

	Increase in U.S.S.R. holdings quarterly	U.S.S.R. surplus with U.S. a/	Discrepancy
1946:			
I	-3.2	+16.6	(-)19.8
II	+24.7	+14.4	(+)10.3
III	-22.0	- 1.7	(-)20.3
IV	+23.0	+ 7.2	(+)16.2
1947:			
I	-2.0	-11.0	(-) 9.0
II	-7.9	- 1.8	(+) 6.1
III	+7.9	+ 5.8	(+) 2.1
IV	+15.2	-16.7	(-) 1.5
1948:			
I	-1.1	- 6.4	(-) 5.3
II	-18.5	+17.3	(-)35.8
III	-12.7	+22.3	(-)35.0
IV	-20.1	+17.6	(-)37.7

a/ Excludes Lend-Lease and UNRRA shipments as reported by the Bureau of the Census.

The computation from Table II makes no allowance for dollar drawings to finance Russia's normal net import surplus with other Western Hemisphere countries which is settled in dollars or of dollar transactions with the rest of the world. Overall Western Hemisphere figures, available only on an annual basis, reinforce the information available from the quarterly data, although even here the statistics are not complete. For 1946, the data on Russia's net dollar trade (excluding Lend-Lease and UNRRA) with the Western Hemisphere and on changes in dollar balances are closely correlated. It is calculated that Russia's net dollar deficit was about \$39 million while dollar balances declined by \$32 million. For 1947, the two sets of data show some discrepancy. Thus, the net dollar deficit is calculated at \$19 million while actual dollar holdings increased by \$13 million, showing an unaccounted Russian dollar accumulation of \$32 million. In 1948, the opposite took place. Known net dollar earnings are estimated at \$20 million while Soviet balances fell by \$53 million, leaving \$73 million to be accounted for.

That Russia has been making heavy purchases of raw materials from the sterling area is common knowledge. This fact, however, cannot be definitely connected with the unexplained discrepancies in Table II since complete

figures are not available on Russia's net position with the sterling area and since Russia's dollar payments to the rest of the world are unknown. Trade data, however, which show a net Soviet deficit for 1948, support the hypothesis.

Information available, however, confirms the fact that not only has Russia apparently been using cheap sterling but has certainly encouraged the offerings of such funds. In fact, Russia's encouragement may have been important in accelerating the growth of cheap sterling transactions. Since April 1947, Russia has offered furs at dollar prices or at a 10 per cent higher price in transferable sterling. Apparently, the furs are nominally sold to a transferable account trader who resells to an American importer. The American importer, paying the 10 per cent higher sterling price, buys sterling at a 16 to 18 per cent discount (Type A-2). The dollars paid by the American firm can be used for transactions of Types C-1 or C-2. Russia is presumed to use the sterling for purchases of sterling area raw materials.

Many trade sources maintain that the current wave of cheap sterling transactions was initiated by Russian dealings in fur. From fur, the trade has spread to other commodities, and the aggregate volume appears to have grown rapidly, particularly in 1948. At present, it is clear that at least some, and perhaps a large volume, of the dollars offered originate from U. S. firms. The transactions originate in New York through foreign exchange brokers, private brokers and some large import firms. The transactions usually require a cable transfer of dollars, rather than a letter of credit, to persons designated by the broker; the recipient is often unknown to the American firm, introducing a slight additional risk factor. A variant of this transaction would be the advance of dollars by Americans to a foreign trader to be used in a cheap sterling transaction. This advance is liquidated with the sale of the imports in the United States.

#### Source of transferable sterling

It is not as easy to uncover the sources of discount sterling. Yet they do not appear to be drying up, although British authorities are steadily trying to plug obvious loopholes.

The source of the difficulty is found in the British system of transferable accounts. Under British exchange regulations, transfer of sterling balances among designated countries may be freely made without British approval.

1/

In principal, no country or area is included in this group unless its balance of payments with the sterling area is in rough equilibrium. Hence, any dissipation of sterling resources ought to lead to stringency on the part of the offending country. Yet, transferable sterling continues to be offered in sustained volume at varying discounts.

1/ These countries include Anglo-Egyptian Sudan, Chile, Czechoslovakia, Dutch Monetary Area, Egypt, Ethiopia, Finland, Iran, Italy, Norway, Poland, Siam, Spanish Monetary Area, Sweden and Russia.

Further, no firm should be able to buy sterling except from a recognized dealer or bank and for certain permitted purposes. In theory, the full sterling available ought to be required for scheduled sterling imports. In practice, however, other foreign exchange control systems are not as effective as the British and "diversion" of sterling is permitted either explicitly or through inadequate control.

The key to the British control system is the fact that exchange allocations are tied together with actual imports. A British trader with an import license must obtain a license to transfer his sterling to a foreign account. The original of the Exchange Control form is forwarded to the Exchange Control Branch of the British Customs. If the duplicate, with supporting documents certifying actual importation, does not find its way through normal banking channels to the Customs in about six months, a Custom's investigation gets underway.

It appears that no continental country has, at least in operating effectiveness, so exacting a tie-in between import licensing and exchange allocation; in fact, it is the British view that imperfect controls are responsible for the "abuse" of transferable sterling. Further, even the British system has had difficulty with transit or entrepot trade. Significant losses of dollar exchange occurred in Hong Kong last year when traders redirected British and other sterling area goods to the United States perhaps at discount prices on the pound (Type B-2). This leak led in July to the imposition of new controls in Hong Kong under which all exchange proceeds from exports to certain markets had to be turned over to the authorities. <sup>1/</sup> The difficulty in bringing under effective control trading in important transit markets explains in part the difficulties which the Dutch Government encounters in coping with the problem of the operations of Dutch traders who have been active in cheap sterling transactions. For the use of Dutch facilities for handling trade between the outside world and interior points in Europe, so important in Holland's foreign trade before the war, presents for Holland problems comparable to the British difficulties in Hong Kong. Authorities in such centers must always be careful that intervention and controls do not do more long-term harm than short-term good.

Moving to an important non-European source of transferable sterling, Egypt, one finds an exchange system inadequate by European standards of effective control. There import licenses are issued by the Finance Ministry while exchange operations, automatic with the import license, although under the Finance Minister, are centered in the Exchange Control Department of the National Bank of Egypt, a private bank mainly with non-Egyptian capital. For whatever reason, the ineffectiveness of this machinery is a widely accepted fact.

If, then, the control machinery in many countries would not prevent cheap sterling transactions, there remains the question of why holders are willing to dispose of transferable sterling balances at substantial discounts. There appear to be three sources of the sterling offerings:

Source 1. Existing price differentials make it profitable to sell transferable sterling at a discount for dollars (Type B-1) and buy certain dollar goods for re-sale in sterling (Type C-1). Such differentials can always

1/ See The Banker's Magazine, October 1948, pp. 257-58

be found but the unbalance in prices, under present conditions, is so extensive that a very wide area of profitable arbitrage exists. High profits on American automobiles in Egypt exemplifies this kind of transaction.

Source 2. The existence of large wartime pound balances which are blocked and are being only slowly unblocked is an incentive to use or dissipate available sterling, in the hopes that larger releases might be forthcoming to purchase British exports. 1/ Thus, countries like Egypt and Siam might well be so used to difficulties in making any net use of their sterling that they could easily begin to think that any use is a good use.

Source 3. The possibility that cheap sterling transactions are being used as a means of capital transfer or capital flight must not be overlooked. Facts about such transactions and their volume are most difficult to ascertain but Europeans might well take advantage of the new technique of transfers by means of cheap sterling trading.

### Effect of cheap sterling

Cheap sterling is having important repercussions on sterling countries, particularly Britain, and on the United States. The loss of dollars by the sterling countries is important since the dollar problem remains the stubborn part of their balance-of-payments disequilibrium. Moreover, these transactions interfere with the gradual restoration of sterling's international position and threaten the present policy of approaching convertibility through a many-staged extension of transferability. Sir Stafford Cripps recently told the Commons that such a transaction "which twists trade out of its normal channels, is damaging the position of sterling, and the government is approaching members of the transferable account area as the opportunity offers with a view to stopping it." 2/ Finally by raising questions about the current value of sterling at a time when British policy is to maintain the current rate, these transactions are a source of considerable official annoyance.

Important questions are also raised from the American point of view. These transactions disturb established patterns of trade with new operators handling a large portion of important imports. Further, the effect of these deals is to shift to European centers the financing and servicing of a large volume of imports formerly handled by New York or London firms.

Has cheap sterling resulted in lower dollar prices for American imports? While no supportable conclusion can be drawn with any confidence, specialists and traders appear to agree that the effect of cheap sterling is to raise rather than lower them. In the early days when the transferable sterling discounts were larger, some dollar savings probably occurred. But the fact that holders of discounted sterling have been strengthening the market seems

1/ In the recent Anglo-Egyptian financial agreement, Egypt obtained releases of £12 million of pre-July 1947 balances immediately and future releases up to £18 million, if necessary to maintain Egypt's No. 1 account balances at £45 million. A target of £47 million pounds of British exports to Egypt is an objective of both parties to the agreement.

2/ Wall Street Journal, April 4, 1949. p.1

generally accepted. In fact, it is the outbidding of established firms by new firms which underlies the substantial diversion of trade which has occurred. Thus, cheap sterling may reduce the dollar cost below the cost at the legal rate, but it tends to keep the sterling market price at higher levels than would otherwise prevail. The actual dollar cost resulting from the two cross-tendencies probably is not below the dollar cost which would prevail if cheap sterling were absent from the market.

### Control measures

The British authorities, confronted with these difficulties, have moved cautiously in their attempts to dry up sources of discount sterling. The cross-rate problem, resulting from flexible rates diverging from official parities (Type A-1), has been successfully eliminated. Sterling was returned to par in Paris in October 1948; in December the Italians agreed to support sterling at par; and recently the Bank of Greece agreed to force up the Athens cross-rate substantially above the current \$3.20. <sup>1/</sup> With the pound at par in France and Italy transactions of Type A-1 should be checked effectively.

The British authorities have attempted to plug leaks by direct discussions with authorities in difficult countries. <sup>2/</sup> The British are reluctant to go beyond the moral suasion or direct discussion stage and apply strong direct measures. For direct action would mean crippling the transferable account concept by requiring British approval for each transfer, the abandonment of the system entirely or dropping a country from the transferable group. There are two overriding objections to the first two alternatives. One, the British have attempted to restore sterling to its former international status by easy stages and such direct action would undo progress made during 1948. Secondly, the cure might be worse than the illness: the effect of drastic action on British invisible earnings, recently expanding at a marked rate, might outweigh the harm actually done by leakages. The third alternative is a step which the British are understandably reluctant to take; in fact, they have used it in only one instance, the dropping of Tangier from the transferable group in August 1948.

Australian attempts to reinforce British measures have reduced, but not eliminated, dollar leakages on their wool exports. The system of export licenses established cover shipments to all non-sterling area countries, except the hard currency areas. <sup>3/</sup> Export licenses are granted only when the Australian

<sup>1/</sup> See C. A. Coombs, "Transactions in 'Cheap' Sterling", N. Y. Reserve Bank memorandum, April 7, 1949, pp. 1-2.

<sup>2/</sup> Financial Times, March 12, p. 4 and March 28, p. 1. An important tightening up on transferable sterling occurred in the recent Anglo-Egyptian financial agreement. As a transferable account member, Egypt has the right to use transferable sterling for: (a) payments to any scheduled (sterling area) country and (b) transfers to the transferable accounts of any other country. Under the latter clause, transfers are restricted to "direct current transactions." The insertion of the word, "direct", is an innovation, designed to limit transfers of sterling to payments for current goods from within the receiving country or its monetary area. It is probable that a similar qualification will be introduced into subsequent agreements with other countries in this group.

<sup>3/</sup> Canada and Newfoundland, The United States, Switzerland and the Belgian Monetary Area. Argentina is the only non-hard currency country included.

Exchange Control is satisfied that the wool exports were for direct European consumption and that re-export to the United States would not occur. The conditions have been violated, and some traders have evaded the conditions by processing the raw wool into tops in Europe and re-exporting the semi-processed product.

New Zealand recently introduced regulations to prevent diversion of hides and skins through Europe. Applications for permission to export to many countries must be accompanied by information on what kind of sterling is being used and certificates that the purchased goods are to be consumed in the buying countries.

What can be done?

From the point of view of both theoretical and practical considerations attempts to check cheap sterling transactions should concentrate upon the elimination of sterling offerings. That this task will prove formidable is evidenced by the fact that even the ending of the transferable account system probably would not eliminate them. For bilateral sterling is being quoted in New York though with a wider range of quotation, as would be expected, than for transferable holdings. Thus, French No. 1 account sterling is quoted at \$3.35, Tangier at \$3.55, Argentine at \$3.80 and Swiss "B" account at around \$3.90. 1/

One common diagnosis of the cheap sterling problem is that the present rate is "simply an overvaluation of the pound." 2/

The fact that this view is widely held raises the question of the relation of the pound value to cheap sterling trading. Those who hold this view argue simply that the trade is the direct result of the artificial value of the pound which is being maintained at the overvalued rate only by means of extensive controls.

The official British position maintains that imperfect controls are responsible for cheap sterling difficulties and that the pound rate has little, if any, relevance. The British recognize that the present rate is artificial in the sense that it could not be maintained without controls; but they consider that the present rate, if anything, undervalues the pound in terms of comparative prices and costs and that British goods are adequately competitive in world markets at the present rate. The means by which, and the speed with which, external equilibrium is to be achieved are the main points of difference between the official position and its critics. The official position would proceed by means of a step by step extension of transferability. The speed is to be determined by the rapidity with which sterling becomes a harder currency and the extent to which pre-July 1947 balances can be shifted to "reliable" Commonwealth holders. Their attitude on the pound rate is pragmatic in that devaluation would not be considered until export difficulties become much more significant. 3/

1/ The Economist, April 16, 1949, pp. 717-8

2/ Wall Street Journal, April 4, 1949, p. 1

3/ In this connection, the reversal of the rising price trend in the United States, the apparent development in some strength of deflationary forces in the world economy and increased export competition from many countries, with Germany and Japan of particular importance, suggest that the time for such consideration may be approaching.

The counter-argument maintains that the current overvaluation is intensifying external dollar difficulties by making dollar markets less attractive and by allowing unhealthy economic tendencies which develop behind the protection of the control apparatus to entrench themselves; hence, the current situation is more likely over time to move away from, rather than towards, external equilibrium and convertibility. 1/

The crucial weakness of the view that the exchange rate has little relevance to the cheap sterling problem is the difficulty in explaining why countries which ought to require all their currently-available sterling are willing to dispose of a large volume at a discount. Source 1 sterling, arising from profitable goods arbitrage due to price unbalance, can be eliminated only by narrowing the area of unbalance. This requires either larger dollar availabilities to satisfy more of the demand for American goods or more favorable relative prices for British substitutes. The former alternative is unpromising since most of the offending countries depend on British resources for dollars; the unbalance in prices would clearly be reduced by devaluation.

The British might present two opposing considerations. One, these price differentials are inevitable in a "dollar shortage" world and the solution is less dollar stringency rather than a change in the value of sterling. 2/ With hard and soft currencies, the price unbalance is too great. Because of dollar stringency, the Egyptians are less interested in using sterling at full value to buy sterling goods than in discounting it to buy Packards. It is easy to point out, however, that the willingness of foreigners to use dollars to purchase discount sterling indicates that the "dollar shortage" is not absolute but relative and that at an appropriate price dollars will be given up in exchange for pounds.

The second argument points to the luxury composition of the dollar goods imported. From the point of view of an austerity program to achieve viability, the discount sterling sales are regarded as the frittering away of valuable exchange. British data on Egyptian trade for a period of nearly four months show the following commodity percentage breakdown:

Tobacco and cigarettes	13.2 per cent
Passenger cars	53.4 "
Other automotive imports	10.0 "
Cereals (oats and wheat)	10.4 "
Refrigerators, radios, etc.	5.2 "
Goods, nylon, clothing, etc.	3.4 "
Miscellaneous	4.4 "

1/ A vigorous statement of the critic's position is found in "Overall Balance", an article in the Sunday Times, March 13, 1948, p. 2. by George Schwartz. The note concludes: "What is happening is the erection of an artificial price structure in the sterling and soft-currency areas entirely divorced from that of the dollar areas. The growing disequilibrium is making it more difficult to restore multilateral trade, and we in Britain may achieve not only an overall balance but an export surplus, and yet find the problem of convertibility more intractable than ever. The ultimate solution of this division between the hard and soft economic worlds may have to be an all-round devaluation of the currencies of the latter."

2/ For example, the Egyptian government recently suspended the issuance of license for imports of essential goods from hard currency areas because of the tight dollar position in the first quarter of 1949.

The preponderance of automotive equipment is the reason why the British call these purchases "Packards for Pashas."

Yet the weakness of the British argument remains. For the continuing sale of transferable sterling must raise the question of whether British exports are in fact as competitive as British policy seems to suppose. Further, it is clear that exchange adjustment is one appropriate method of dealing with the cheap sterling problem, although there may be legitimate reasons why the British prefer to reject such a step. It is the reluctance to concede the relevance of cheap sterling to devaluation which is difficult to sustain.

At the same time, it is possible to overestimate the effectiveness of devaluation by itself. Currency adjustment alone would probably not eliminate this trade. For currency devaluation, no matter how drastic it might be, could be expected only to narrow the trade based on price unbalance, not eliminate it. Even, however, if the adjustment did eliminate the trade, offerings of sterling from Sources 2 and 3 should continue. Source 2 sterling should continue to lead to discount offerings so long as the pre-1947 balances are not effectively tied down, for there is no practical exchange adjustment which would enable Britain to liquidate these blocked funds as rapidly as their holders would probably desire. Source 3 sterling, capital flight, is more responsive to political, than to economic considerations and would probably continue with limited regard to the prevailing rate of exchange. In any exchange adjustment, transfers of this type could not be authorized.

An explanation, more consistent with the view that British goods are adequately competitive, points to the excessive rate at which sterling balances are being released as one source of discount sterling. In 1947 the liquidation was three times, and in 1948 five times, the annual rate proposed as reasonable in Article 5, paragraph (b) of the Angle-American Financial Agreement. Yet there is no direct evidence of any substantial reduction in the balances of those countries which offered discount sterling in 1948.

Elimination of discount sterling should prove difficult under existing circumstances. There appear to be three methods of dealing with the problem. Reinforcement of controls through negotiation is the one which the British are now adopting. This method is limited in effectiveness, since negotiation is a slow and irregular process, controls at their most effective are imperfect, and drastic action is prevented by important considerations. A second method would reduce the rate at which British accumulated liabilities are being liquidated and speed up arrangements to put these balances onto a more permanent basis. A third method, devaluation, is apparently not being explored by the British. Clearly, an exchange adjustment would reduce the sterling being offered at a discount, but it is unlikely that the offerings would disappear as a consequence. The effective attack, regardless of methods utilized, should concentrate upon reducing offerings of cheap sterling, not upon attempting to control the flow of dollars or to establish elaborate checks on the physical movement of goods in world trade channels. <sup>1/</sup> With the possible exception of exchange losses due to flight of capital, of immediate interest to the United States so long as E.C.A. funds are filling Western Europe's dollar gap, cheap sterling appears to be a sterling rather than a dollar problem.

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<sup>1/</sup> Evasion of such measures through processing of raw materials, which is taking place in the case of wool, results in mounting confusion and disturbance.

May 24, 1949

BRITISH EXPERIENCE WITH EXPORT CREDIT GUARANTEES 1/ Gretchen H. Fowler

The export credit guarantee system devised by the British Government has been in operation for 30 years. It has proven to be a flexible means of aiding British export trade under changing conditions.<sup>2/</sup> Begun in 1919 to facilitate trade with devastated countries which were poor risks for private insurance firms, the scheme has been altered on several occasions to fit new trading conditions and to introduce improvements in its operation in the light of actual experience. The changes have included increases in the credits available and expansion of the types of the risks which could be covered. Important changes have also been made in the mechanics of the scheme. At present, the scheme, as revised in 1949, is being used as a means of improving Britain's balance-of-payments position. In fact, the President of the Board of Trade announced in the House of Commons on April 11, 1949, that "additional assistance by the export credits guarantee department" was one of eight points in the Government's current program to promote British exports to North America.

1919-1921

The original Act of 1919 set up an emergency fund of £26 million, primarily to prevent unemployment and to reclaim markets in specific countries. The Export Credits Department under the Board of Trade, after

1/ The following source material was used in this paper:

Ethel B. Dietrich, "British Export Credit Insurance", American Economic Review, June 1935, pp. 236 to 249.

Memorandum of the Federal Reserve Bank of New York, Feb. 26, 1945, "Credit and Transfer Insurance for United States Exporters".

Memorandum of the Department of Commerce, Office of International Trade, Nov. 29, 1946, "Experience of the United Kingdom with Export Credit Insurance".

Weekly Hansard, volumes 96, 113, and 114. Debates following the readings of the Export Guarantees Bills.

The Export Guarantees Act, 1949.

2/ The flexibility of the Export Credit Guarantee Scheme is well illustrated in the recent suggestion by Paul Einzig that a guarantee be given American importers against devaluation losses through a scheme managed by the Export Credit Guarantee Department rather than through the provision of forward exchange facilities. Einzig's suggestion is an attempt to counteract the grave danger to Britain's export drive caused by recent sterling devaluation rumors. (See The Financial Times, Tuesday, 3 May, 1949, p. 4.)

consulting the Advisory Committee, made direct cash advances to exporters not exceeding 80 per cent of the cost price of the goods sold plus freight, insurance, and commission to the Board of Trade. These advances were to be backed by collateral offered by the exporter and/or importer; later the security requirement was relaxed and dropped entirely where the exporter carried up to one-half the insured risk. Thus, if 80 per cent were advanced, there would be recourse against the exporter for 40 per cent in case of default. Since cost proved difficult to determine, invoice value was later made the basis for computing the risk.

This scheme was limited to trade with war devastated countries, newly formed nations, and the small nations bordering Russia. There was very little use made of the scheme in this period, due to the impoverishment of the countries to which the Act was limited, exacting collateral requirements, and the necessity for ultimate liquidation of the debt in sterling. Moreover, the exporters were unwilling to bear the percentage of risk involved, and the Department was slow in acting and failed to advertise the scheme effectively. This phase of the scheme resulted in substantial losses to the Government, and led to a major amendment in 1921.

#### 1921-1929

Under the scheme inaugurated in 1921, the Government guaranteed exporters' bills, which were then discounted through regular banking channels at about the same rate as Treasury bills. Under the Act, the Government guaranteed up to 100 per cent of these bills; in the case of loss, it had full recourse against the exporter up to  $57\frac{1}{2}$  per cent of the invoice value. In this period, amendments to the Act extended its privileges first to the British Empire, and later to any country at the discretion of the Export Credits Department.

In 1926 the Act was amended to undertake guarantees up to 75 per cent without recourse, as well as the 100 per cent with full recourse. In 1928, a new contract was added which gave a guarantee to the bank rather than to the exporter, thus making a bill a first-class security.

Little use was made of the guarantee system during the 1920's, and the volume of trade covered was negligible. By the end of the first decade, the cost of the scheme amounted to between £18,000 to £20,000 annually, or 60 to 70 per cent of the premiums collected.

#### 1930-1939

A special committee was appointed in 1930 to review the Act and its report resulted in a major reorganization of the insurance scheme. The report emphasized that the scheme should be run as a business proposition,

with solvency the first requirement, and pointed to the need for a sufficient minimum turnover of business. Following the Committee report, all previous business was wound up and a Credit Insurance Scheme, still in operation, was inaugurated.

Under the provisions of this scheme, an executive committee of four members, appointed by Board of Trade, managed operations, assisted by an Advisory Council. The Committee inspected each proposal to determine the percentage of risk to be insured, the length of the credit, and the premium. There was no fixed schedule of rates, which varied according to the period of the credit, the extent of coverage, the financial standing of the exporter and importer, the exporter's previous experience in the market, and financial conditions in general. The guarantees were limited to the export of goods (other than munitions of war) that were wholly or partly produced or manufactured in the United Kingdom. There were four different types of insurance contracts under which the Export Credit Department offered to the exporter the guarantee of the British Government, with a maximum guarantee of 75 per cent of invoice value without recourse (by the Government against the exporter in case of loss) and a maximum guarantee up to 100 per cent with full recourse:

- (1) Guarantee of payment, immediately upon default, to the exporter of the insured percentage of the bill;
- (2) Guarantee of payment, immediately upon default, to the exporter's bank of insured percentage of the bill;
- (3) Cover of credit risks against loss through insolvency of the debtor; and
- (4) A Comprehensive guarantee which insured the exporter against 75 per cent of all losses on all of his business over and above an agreed amount arising from the insolvency of his customers in all markets, subject to an agreed maximum. In determining the base, the Department decided upon a certain percentage of loss which was normal for the exporter, and then insured a percentage of the remainder.

To this Comprehensive plan was later added the "Transfer Addendum", an optional supplementary policy to protect the exporter against the risk of transfer loss arising from introduction of foreign exchange restrictions. Under this plan, the exporter was guaranteed the return from a solvent buyer of 90 per cent of the sterling value of the goods.

The experience with the Act during the 1930's proved that the plan was a self-supporting proposition. Income covered administrative expenses and reserves against losses grew rapidly as increasing use was made of the guarantees. By 1939 the reserves totalled £4 million.

The Overseas Trade Guarantees Act of 1939 set up guarantees against non-commercial risks that were to be made without the approval of the Advisory Council if the Department deemed the transaction to be in the national interest. These non-commercial transactions would not normally have been accepted by the Advisory Council as reasonable commercial propositions, but, in the national interest, it was considered desirable to support them by the aid of guarantees. Prior to the war, these guarantees were extended for entirely political reasons, and covered the sales of arms to small nations; there are still bills outstanding on these guarantees.

1940-1945

Special war risk clauses were added during the war, covering the British exporter against default, non-delivery of goods, imposition of import restrictions, exchange restrictions, additional charges caused by interruption and diversion of shipment, and fluctuations of war risk insurance charges. This last plan made it possible for exporters to quote firm c.i.f. prices on their goods. By 1945, due to the losses during the war, the reserves had fallen to £1.5 million.

1945 to Date

Early in 1945 the Act was regarded as a permanent part of British export and credit machinery, and it was recognized as a potentially vital source of assistance in the post-war drive to expand exports. Price increases, confused trading conditions, and increasing demands for this service from British exporters caused the Government to extend the Act in 1945 and 1948. The total authorized limit on outstanding guarantees was increased, and "invisibles" were added to the trade to be covered.

Insurance facilities under the scheme at that time covered (1) insolvency or protracted default by the buyer; (2) exchange restrictions preventing sterling transfer to the United Kingdom; (3) war between the buyer's country and the United Kingdom or war or revolution in the buyer's country; (4) cancellation or non-renewal of export license or imposition of restrictions on the export of goods not previously subject to license; (5) additional charges for handling, insurance, or freight; and (6) other losses arising from events outside the United Kingdom.

The Act of 1948 had financial limits of liability for commercial guarantees of £300 million and a total of £60 million for special guarantees in the national interest. Under the £300 million limit, there were subsidiary limits of £30 million for entrepot trade not passing through the United Kingdom; £15 million for reexports; and £15 million for "other matters connected with export trade".

This last provision is of particular interest since it covers transactions not necessarily resulting in exports, but conducive to the establishment or encouragement of export trade. Examples of the use of this provision would be the guarantee of payment for the processing abroad of British-owned raw materials (such as wool or cotton); guarantee of salaries to British technicians hired by other countries (this is known as the export of "brains"); or the guarantee of rental fees for British equipment for use in construction projects abroad. This provision also covered the establishment abroad of warehouses and sales agencies. This type of guarantee is, therefore, the closest British approach to a program for technical assistance and investment guarantee. Under the £60 million limit, there was a subsidiary limit of £6 million for other than "home produced" goods. These limitations, carried forward from days when the objective of the scheme was to expand exports from the United Kingdom to prevent unemployment, were found to be inapplicable to the present need to encourage all overseas trade, including "invisibles", to close the gap in the British balance of payments.

Therefore, after an extensive examination of the needs of the trade and the usefulness of the scheme, the Government presented the Act of 1949 which not only raised the limits of guarantees, but broadened the power and elasticity of their use. Under this Act, the subsidiary limits were not renewed. Guarantees could cover any transaction, whether in goods or in services, that would result in earnings for the United Kingdom. Limits for commercial guarantees (to be made with the concurrence of the Advisory Council) were raised to £500 million, and were used to encourage trade with places outside the United Kingdom in connection with "the export, manufacture, treatment, or distribution of goods, the rendering of services, or any other matter which appears to the Board of Trade conducive to that purpose". Limits for non-commercial guarantees were raised to £100 million, and were made not only to encourage trade, but also to render economic assistance to countries outside the United Kingdom, if the transactions covered appeared to the Board to be in the national interest. The most urgent current use of this guarantee was cited in debate as insurance against cost rises in the manufacture of capital equipment, which take two to four years to complete. Export of capital goods to eastern European countries in bilateral trade agreements was cited as another example where such credits could be utilized, due to the political risks involved in trade with these countries. The President of the Board of Trade even said that these guarantees could cover "special transactions, perhaps unorthodox in character, which might lead to increased exports to most desirable countries such as, for example, Canada and the United States".

This Act, therefore, gives the Board of Trade some power to alter the direction of exports. Although only £8 million had been used of the £60 million provided under the 1948 Act for non-commercial guarantees, the

Government asked for £100 million on the grounds that the anticipated expansion in the use of this clause required the additional amount.

The operation of the Export Credit Guarantees Department, which administers the Act, has not involved any charge to public funds. Premiums, kept as low as possible, have built up a reserve which, as of the end of January 1949, amounted to about £6 million.

THE SOVIET ECONOMY IN 1949 - II. NATIONAL INCOME,  
SIZE AND ALLOCATION 1/

Gregory Grossman

Estimating the magnitude of the Soviet national income on the basis of the scanty and indirect information available to non-Soviet economists is almost as hazardous as guessing a man's weight from the size of his shoes and the fact that he wears a double-breasted suit. Yet it goes without saying that such an estimate is highly desirable for a proper evaluation of the economic information about the Soviet Union which reaches the outside world. It is for this reason that the following attempt is being made. No doubt, the probable errors of estimate are uncomfortably large in many instances; occasionally outright guesses have to be resorted to. Nevertheless, these estimates or guesses are felt to be of some (if very limited) value in arriving at certain orders of magnitude which may be indicative of the general magnitudes and trends in the Soviet economy.

Scope of National Income Concept Under Soviet Conditions

The Soviet concept of national income, based on Marxist production theory, embraces only tangible (commodity) output; other income is conceived of as being redistributed rather than earned. However, it is preferable for our purposes to employ the more familiar and broader concept of national income which comprises income arising from the current production of both commodities and services.

The net national income, if understood as the "aggregate of the income payments accruing to the factors of production in a specified period" 2/ may be taken under Soviet conditions to comprise: (a) the earnings of labor, including income in kind but excluding labor that is not legally sanctioned; (b) the collective profits of cooperatives, especially collective farms, which may be regarded as a sort of entrepreneurial income; (c) the very small profits of whatever private enterprise still remains, such as uncollectivized farmers, artisans, trappers, etc.; and (d) the net imputed rental value of owner-occupied dwellings. Of these, the earnings of labor probably account for more than 95 per cent of the total.

In our opinion, profits of state-owned enterprises should not (with the exception presently indicated) be regarded as an element of national income for the following reasons: the profit margins are largely an arbitrary accounting category more akin to the turnover tax than to entrepreneurial profit; these margins are frequently varied for administrative reasons; and, lastly, the entrepreneurial functions in state-owned enterprises are remunerated from the salary accounts of the enterprises and from the state budget. However, an exception might be made for that part of the profits which is

1/ This is the second of two articles; see this Review, May 9, 1949.

2/ This is one of three alternative definitions of national income in: Statistical Office of the United Nations, National Income Statistics, 1938-1947, Lake Success, 1948.

allocated to the so-called director's fund and which is used for bonus payments, improvement of working conditions, communal services, etc., especially since the bulk of these funds is probably derived from above-plan profits, i.e. from the fruits of superior management. 1/

### Size of National Income

Our calculation of the size which net national income at factor cost may be anticipated to reach in 1949 is presented in Annex B and yields a result of 587 billion rubles. It is an extrapolation of Baran's computation for 1940 2/, assuming the same ratio of national income to the total wage bill as in 1940, and using our estimate of the wage bill in 1949 of 339 billion rubles (Annex A). This assumption may impart an upward bias to the estimate insofar as there is reason to believe that the wage bill now covers a somewhat larger fraction of the labor force, including agriculture, than in 1940.

Table 3. ESTIMATED NATIONAL INCOME AND PRODUCT OF THE USSR IN 1949

	<u>Billions of rubles</u>	<u>Per Cent</u>	<u>Source of data</u>
Net national income, domestically produced, at factor cost	587	100.0	Annex B
Add: Depreciation	15	2.6	Annex C
Profits of state enterprises	70	11.9	Budget speech
Net inflow from abroad	10	1.7	Annex B
Subsidies*/	<u>-50</u>	<u>-8.5</u>	
Gross national product, disposable, at producers' prices (GNP/p)	632	107.7	
Add: Turnover tax	<u>262</u>	<u>44.6</u>	Budget speech
Gross national product, disposable, at market prices (GNP/m)	894	152.3	

Note: This is an attempt to arrive at the various rough orders of magnitude in the Soviet national income account. No precision is claimed for these figures, some of which are extremely crude of necessity. They should not be used without reference to the discussion in the text.

\*/ Taken as five-sixths of the difference between budgetary expenditure on "financing the economy" and budgetary outlay on investment.

1/ Since 1948 the director's fund receives 1 - 5 per cent of planned profits and 15 - 45 per cent of above-plan profits; only industrial enterprises are in question. (Turetski, Sh., Vnutripromyshlennoye Nakopleniye v SSSR Moscow, 1948, p. 301). In our quantitative estimates we have made no adjustment for this exception.

2/ Baran, P. A.: "National Income and Product of the USSR in 1940", Review of Economic Statistics, vol. XXIX, No. 4, November 1947. We have slightly adjusted his figure to deduct profits, in accordance with our discussion above. Baran does not explicitly account for imputed net rental value of owner-occupied dwellings; we have made no adjustment for this category as its magnitude is believed to be quite insignificant.

Since the allocation of national income takes place not at factor cost but at some sort of market prices we have to adjust our national income estimate to produce a gross national product estimate. However, there are at least two very distinct market price levels in the USSR: the price level at which transactions between producers (including the state treasury) take place, and the much higher level at which purchases are made by consumers. The difference between the two levels is, of course, not the cost of retail distribution (which is here considered as a part of the cost of production), but the spread which is imposed in the form of arbitrary profits and the turnover tax. If, as our estimates in Annex D show, this tax constitutes about 60 per cent of the retail price to the consumer, then the ratio between the two price levels must be of the order of 40:100. Table 3 shows accordingly two separate gross national product magnitudes: at "producers' prices" (GNP/p) and at "market prices" (GNP/m), the "market prices" being really a weighted average of the two price levels. GNP/p is a more useful concept than GNP/m for our purposes, and it alone shall be employed hereafter. Our calculations show GNP/p to be 632 billion rubles in 1949.

#### Comparison with Prewar

In real terms, the net national income (product) of the USSR in 1949 will probably be 5 to 10 per cent larger than in 1940, the last prewar year. It would be easiest to compare the real national income in 1948 with that in 1940, and then to allow for the anticipated real increase between 1948 and 1949.

It has been stated in the Soviet press <sup>1/</sup> that national income in 1948 was 14 per cent greater than prewar (presumably, 1940). The statement, if it represents an official calculation, most probably refers to values in so-called "constant" 1926/27 prices, and to the Soviet concept of national income. Even in the absence of any willful falsification this claim probably exaggerates the real level of national income, because of the upward bias inherent in the "constant" price system <sup>2/</sup>. It is more likely that the total real disposable product, including the relatively small net inflow from abroad, was still slightly smaller in 1948 than in 1940, or at best approximately the same. To support this conclusion we shall survey very briefly the real levels of output in the various branches of the economy in 1948 relative to the prewar levels.

Agriculture. By Soviet claim the grain crop in 1948 "almost" attained that of 1940 <sup>3/</sup>, a relatively good crop year. The U. S. Department of

<sup>1/</sup> Speech of Deputy Samedov (Azerbaijan) during the budget "debates", Pravda, March 12, 1949, p. 3.

<sup>2/</sup> cf. Gerschenkron, A., "The Soviet Indices of Industrial Production", The Review of Economic Statistics, Vol. XXIX, No. 4, November, 1947.

<sup>3/</sup> Pravda, January 20, 1949.

Agriculture estimates that production of principal grains was 84 per cent of the 1935-39 average, and that the production of sugar beets was still below prewar 1/. There is no doubt that the output of livestock products was still very much below 1940. The situation was probably relatively more favorable with respect to cotton, although it is doubtful that the prewar level was exceeded. On the whole, the real contribution of agriculture to national income must have been considerably below the 1940 mark.

Industry 2/. The official claim is that gross industrial production in 1948 exceeded the 1940 level by 18 per cent. Although not explicitly stated, the computation is presumably in terms of 1926/27 prices. The upward bias involved in these prices has been already mentioned, and it is particularly serious over periods when the commodity structure of industrial output undergoes a rapid transformation. It has been estimated by a Soviet source 3/ that wartime industrial output data expressed in the so-called "constant" prices should be reduced by 20-25 per cent to make it comparable with peacetime industrial output statistics. Since the forces making for upward bias in wartime were most likely only partly eliminated after the war, it would seem that something like a 10 per cent downward correction is called for with regard to the 1948 claim yielding the result that the volume of industrial output in 1948 may have been some 5 - 8 per cent higher than in 1940. What is known of the physical output of various industrial commodities does not seem to be inconsistent with this result, although very wide variation is to be found between commodities.

Construction. As we shall see in another section of this article, there is reason to believe that the real volume of gross investment in new capital assets was appreciably larger in 1948 than in 1940, although Soviet claims of a more than 50 per cent increase in this respect seem to be exaggerated. Accordingly, the contribution of construction to national income was probably also appreciably above prewar in real terms.

Transportation. Freight turnover on railroads, by far the most important item in transportation, is stated to have exceeded the 1940 volume in 1948 4/, although apparently only slightly for otherwise a "percentage" would have been claimed. Highway transportation is said to have exceeded the 1940 volume by almost 50 per cent 5/, but inland waterway traffic was apparently

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1/ World Food Situation, 1949, January 12, 1949, pp. 13-4.

2/ In Soviet terminology "industry" comprises manufacturing, mining, power production, forestry, and fishing.

3/ Turetski, Sh., op.cit. p. 375 ff.

4/ Pravda, January 20, 1949.

5/ Ibid.

still below prewar on the whole 1/. Maritime and air transportation probably surpassed the prewar volume of traffic. Thus, it seems that the contribution of transportation to national income may be taken to have been approximately the same, in real terms, in 1948 as in 1940, if not slightly larger.

Trade and Services. The real volume of retail trade not having reached the prewar mark in 1948, it is doubtful that the contribution of trade to national income was any larger than in 1940. Nor is there any reason to believe that the real volume of services appreciably exceeded the 1940 level in 1948.

A "weighted guess", if not a weighted average, of the relative levels attained by the several economic branches indicates that in real terms Soviet national income (product) in 1948 was somewhat below, or at best, equal to that of 1940. 2/ We have already assumed a 10 per cent rise in the money national income between 1948 and 1949 (Annex B), while in real terms the increase will most probably be somewhat larger because of improving general efficiency of operation. 3/ We can therefore say that in real terms the national income (product) of the USSR will probably be 5 - 10 per cent larger than in 1940. The population now being almost exactly the same in number as immediately before the war, the increase in per capita income (but not consumption!) must be in the same proportion.

It would be of interest to translate our findings into dollar terms, although the extreme tenuousness of any such estimate cannot be overemphasized. Baran has estimated Soviet net national income in 1940 at 31.1 billion dollars of 1940 purchasing power 4/. Taking this figure as our starting point, we raise it by 5 - 10 per cent to account for the estimated intervening real increase, and then again by 85 per cent to allow for the U. S. price inflation 5/. We obtain 60 - 63 billion dollars of 1949 purchasing power as the equivalent of the 1949 net national income of the USSR. Collating this estimate with our estimate in ruble terms (587 billion) we obtain an "exchange rate" of 9 or 10 rubles per U. S. dollar. This "exchange rate" refers to relative factor cost levels, and can also serve as an approximation for the relationship between the level of producers' prices in the USSR and the U. S. price level. It is not relevant to the Soviet level of consumers' prices.

Our estimate of the gross national product (GNP/p) of the USSR in 1949 is 7.7 per cent larger than our estimate of net national income; it thus may be placed at \$65 - 68 billion.

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1/ Pravda, March 14, 1949, p. 2.

2/ We also consider the net inflow of goods from abroad in the postwar year, although the magnitude of this inflow is well within our margin of probable error.

3/ Assuming, of course, no less favorable crop yields than in 1948.

4/ Baran, op. cit., p. 203.

5/ 185 is the midpoint of the US BLS indexes of wholesale prices and of consumers' prices for February 1949 (1940 = 100).

Table 4. EXPECTED ALLOCATION OF THE NATIONAL PRODUCT OF THE USSR IN 1949

	<u>Billions</u> <u>of rubles</u>	<u>Per cent</u> <u>of</u> <u>Total</u>	<u>Source</u> <u>of data</u>
Gross national product (GNP/p)	632	100.0	Table 3
Gross investment	138-169	21.8-26.8	Table 5
of which: capital assets <u>1/</u>	105	16.7	Table 5
working capital & stockpiling	33- 55	5.2- 8.7	Table 5
newly-mined gold	8- 10	1.3- 1.6	Table 5
Military use (explicit only) <u>2/</u>	79	12.5	Budget speech
Government administration and security forces	37	5.8	<u>3/</u>
Consumption <u>4/</u>	347-378	55.0-60.0	By subtraction
of which:			
Retail purchases in state and coop. stores, less turnover tax	159	25.2	Annex D
Retail purchases in "kolkhoz" market	54	8.5	Annex D
Communal services (education, medical care, etc.)	82	13.0	Budget speech
Other <u>5/</u>	52 -83	8.2-13.2	By subtraction

Note: This is an attempt to arrive at the various rough orders of magnitude in the Soviet national income account. No precision is claimed for these figures, some of which are extremely crude of necessity. They should not be used without reference to the discussion in the text.

1/ For definition see footnote on page 7.

2/ Includes consumption by military personnel. For scope of this category see text.

3/ Estimated to be equal to the 1948 appropriation (see Table 2 in first article) plus 2 billion rubles for administration on local government levels. Includes consumption by security forces personnel.

4/ Residual item. Excludes consumption by military and security forces personnel.

5/ Residual item. Should include: consumption in kind, purchases of public utility services, etc. Does not include imputed rent of owner-occupied dwellings, which is omitted from our national product estimate. Also reflects errors and omissions.

Investment

We now turn to the allocation of the Soviet national product between investment, military use, and consumption (Table 4). Reconstruction needs, strategic considerations, and the long-run policy of rapid economic development have combined to impose an extremely intensive rate of capital formation on the Soviet Union in the postwar years. Nevertheless, by explicit admission, investment in production facilities lagged seriously behind plan in the early postwar years, despite the tremendous receipts of capital equipment, both dismantled and newly produced, from occupied countries (especially Germany and Manchuria) as well as from other foreign sources. A positive statement of fulfillment of the 1948 investment plan is lacking. However, beginning with 1948 a policy of concentrating investment in fewer projects, and thus bringing them more rapidly to completion, was launched. This policy apparently has contributed to the alleged rapid growth of industrial output.

It has been claimed that the real volume of investment in new capital assets 1/ was in 1948 more than one-and-one-half times as large as prewar. 2/ In view of the heavy emphasis on investment before the war, it is difficult to accept this claim at face value. Nevertheless, if our estimate of a larger than prewar industrial output is correct, and considering the now greater share of investment goods (although possibly not building materials) in total output, plus the larger imports of such goods, a certain increase in the volume of investment over prewar seems plausible. The claimed increase over prewar appears also doubtful as we compare the announced values of investment in 1940 and 1948, allowing for the intervening cost-price changes. 3/

Of the projected investment in 1949 (Table 4), the total gross investment in capital assets is to be 105.5 billion rubles, or considerably above the 1948 level, even if allowance is made for higher producers' prices. This investment will correspond to one-eighth of our estimate of gross national product (GNP/p), but this ratio may be understated insofar as subsidies may benefit the investment goods industry more than the rest of the economy. It is very

1/ "Kapitalovlozheniya" (or "kapital'nye raboty") -- includes investment in livestock, buildings (residential and plant), equipment and installations, rolling and floating stock, roads, communication facilities, as well as experimental and exploratory work.

2/ Budget speech; Pravda, March 11, 1949.

3/ The values are 43 and 66.2 billion rubles, respectively. Unit labor cost of production increased by 66 per cent (Annex A). Assuming a 50 per cent real increase, investment in 1948 would have to have been about  $43 \times 1.66 \times 1.5 = 107$  billion rubles before subsidies. Thus, either the subsidies on investment goods were extremely large ( $107 - 66.2 = 40.8$  bill.r.), or the claim of a more than 50 per cent increase is exaggerated, possibly because of the bias inherent in the "constant" price system.

Table 5. ESTIMATED PLANNED GROSS INVESTMENT IN THE USSR IN 1949

(in billions of rubles at producers' prices)

Type of Investment	Total	Sources of Financing				As % of GNP/p
		Budget	Retained current profits	Current deprecia- tion al- lowances	Bank Credit	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Capital assets <sup>1/</sup>	105.5	79.8	18.7	7.0	-	16.7
2. Working capital	23.6	10.1	13.5	-	-	3.7
3. State stockpiling ("reserves")	<u>9.0</u>	<u>9.0</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1.4</u>
4. Gross investment (minimum)	138.1	98.9	32.2	7.0	-	21.8
5. Gold reserve increment	8.0 - 10.0	-	-	-	8.0 - 10.0	1.3 - 1.6
6. Goods in transit	( 20.7 -				( 20.7 -	( 3.3 -
7. Other bank-financed investment	( 22.7	-	-	-	( 22.7	( 3.8
8. Gross investment (maximum)	168.8	98.9	32.2	7.0	30.7	26.8

Sources: Items 1. and 2. from Zverev's budget speech, but the distribution between columns (4) and (5) has been estimated (Annex C). Item 3. assumed to be at least double last year's appropriation (4.2) because of both higher prices and presumably larger stock piling; admittedly arbitrary. Items 5. - 7. as discussed in the first article. The difference between the maximum (item 8.) and minimum (item 4.) values of gross investment equals the anticipated budgetary surplus, which is here assumed to offset an equivalent expansion in bank credit (cf. discussion in first article).

<sup>1/</sup> For definition see text, footnote <sup>1/</sup> on page 7.

(Continuation of text from page 7.)

difficult to say even approximately how much of this represents net investment. In Annex C we estimate current depreciation allowances for replacement to be of the order of magnitude of 7 billion rubles, which represents the sum of the accounting entries, rather than the actual current replacement cost. The former has been chronically lagging far behind the latter, and now, with the gradual abolition of subsidies, may represent no more than a fraction of the actual replacement cost.

The increment in physical working capital financed from the budget and from current profits of enterprises is to be 23.6 billion rubles. However, as discussed at some length on the first article, there is a strong presumption that considerable inventory accumulation is financed by bank credit expansion. It was also suggested that the increment in the gold reserve, estimated at 8 to 10 billion rubles at the cost of production 1/, is financed in a similar fashion. It was argued that the budgetary surplus (30.7 billion rubles) is intended to offset an at least equivalent expansion in bank credit. In Table 4 we have taken bank financed investment to be equal to the budgetary surplus, which also represents the difference between our minimum and maximum estimates of total gross investment in the economy, or 138.1 and 168.8 billion rubles -- 21.8 and 26.8 per cent of GNP/p -- respectively.

It is very likely that a fraction of the total projected gross investment is to be devoted to the construction of objects of a strictly military nature, and should be more properly charged to military use. We have no way of estimating it. On the other hand, our estimate does not include investment "in kind", i.e. work of an investment nature which is not reimbursed in monetary terms such as the compulsory work on roads (six days per year by virtually the whole rural population of both sexes), work in connection with the "shelter-belt" program, the labor of prisoners of war on construction projects, etc.

#### Military Use

The explicit budgetary appropriation for the armed forces for 1949 is 79.1 billion rubles, or 12.8 per cent of our estimate of the gross national product. It is about 20 per cent larger, in ruble terms, than last year's expenditure, and by official admission only a part of the increase is due to the higher producers' prices, some of the increase representing a larger outlay in real terms. However, considering the growth in real national income, it does not seem that the explicit outlay for military use will constitute a significantly larger fraction of the national product this year than it did last year. In 1940, when intensive war preparedness was already under way, this fraction was one-sixth, or considerably more than at present.

The appropriation for the armed forces does not include the projected outlay on the various paramilitary formations under the jurisdiction of the ministries of Internal Affairs (MVD) and State Security (MGB). In 1948 this outlay may be estimated to have been about 20 billion rubles 2/, but only a part of it must have been spent on paramilitary formations, the remainder going for administrative expenses, the upkeep of prisons and prison camps, ordinary police and fire-fighting duties, etc.

In addition, it is quite likely that appropriations for ostensibly non-military purposes contain outlays which are wholly or partly more properly chargeable to military use. We have already mentioned this problem in connection with investment outlay; scientific research of a military nature may

1/ Under the assumption that the annual rate of gold mining is 200 metric tons, or \$225 million at the U. S. parity price.

2/ Estimated from data reproduced in Table 1 (first article).

be included under "social and cultural measures", and even the alleged budgetary surplus may be in whole or in part a fictitious entity concealing additional military expenditures. There is, of course, no way of substantiating or refuting these hypotheses on the basis of the data in published Soviet sources.

### Consumption

Consumption standards have risen considerably since the postwar low that was registered after the crop failure of 1946. We have already indicated that retail prices in state and cooperative stores may have been reduced by something like 12 - 14 per cent since the end of 1947, while total money income payments are increasing at a rate of 10 per cent per annum, although these two facts are, of course, insufficient in themselves to determine the degree of improvement in consumption standards. Neither housing nor services show improvements anything like the expansion in retail trade.

It is very doubtful, however, that the prewar standard of living has been as yet attained even with reference to the average situation in 1940, which already witnessed a considerable decline from the levels of 1938 and 1939 owing to the intensification of war preparedness measures. Insofar as known, the present rate of output of foodstuffs and industrial consumer goods is no higher, and probably on the whole still lower, than in 1940, although stockpiling (especially of foodstuffs) and the foreign trade balance may favor the consumer somewhat more now than in 1940. Housing conditions are much worse. While the average annual wage (or salary) is now, in money terms, 90 per cent higher than in 1940 (Annex A), state retail prices on foodstuffs have increased between May 1940 and May 1949 as follows: rye bread, the staple foodstuff -- 3.2 times; white bread -- 3.7; sugar -- 3.7; butter -- 3.0; meat -- 1.5 - 1.7; eggs -- 1.7; and milk -- 1.4. It must be noted that there were sharp price increases in meat and some other items shortly prior to May 1940, so that the comparison would be even more unfavorable to the present situation had we referred back to the "good" years, 1938-39. Open market prices appear to be somewhat higher than those in state stores in both periods, indicating that the latter may be incapable of meeting the full demand at the fixed prices.

Table 3 shows that 55 - 60 per cent of gross national product may be going to consumption in 1949. Yet, since this is a residual figure, an even greater degree of caution should be attached to it than to the other -- none too precise -- computations. "Consumption" here includes communal services furnished by the state, such as education and medical care, but does not include the imputed rent of owner-occupied dwellings of the personal consumption of military and paramilitary personnel maintained by budgetary appropriation. We may be understating the share of consumption also because, as was suggested, the structure of subsidies may benefit investment goods industries more than consumer goods industries.

The corresponding ratio for 1940 is 59 per cent, as can be computed from budgetary data and Baran's study. Considering that real national product

may be somewhat higher in 1949 than in 1940; this would suggest approximately the same quantum of consumption in both years, as well as the same per capita consumption, the population being approximately the same in both cases. However, as we have seen, most indicators disagree with this conclusion and point to a lower level of consumption at this time than in 1940, itself a year of sharply declining consumption levels. It may also be significant that even Soviet propaganda has not as yet claimed that consumption levels have regained the prewar level.

Annex A. - Wage Bill and Labor Cost

The wage bill for 1947 was planned at 280 bill. r. (Pravda, March 1, 1947). This is presumably the "comprehensive" variant of the wage bill.<sup>1/</sup> The actual wage bill for 1947 or the absolute data for subsequent years have not been published. However, the 1947 planned figure was probably substantially realized, judging by the fact that direct tax collections in that year deviated from budget estimates by only 1.1 per cent (Pravda, February 21, 1947, and February 1, 1948). Let us assume that the actual wage bill in 1947 was 280 bill. r.

In 1948 the wage bill was 10 per cent larger than in 1947 (Pravda, January 20, 1949), or 308 bill. r. Direct tax revenues in 1949 are planned to be 10.2 per cent over actual revenues in 1948. Since the income tax rate structure is only mildly progressive we may assume the wage bill to increase proportionately, i.e., by 10 per cent. Hence, wage bill in 1949 = 308 x 1.1 = 339 bill. r.

Thus, the "comprehensive" wage bill in 1949 is  $339 \div 161 = 2.11$  times that of 1940. The number of "workers and employees" was 31.2 million in 1940; in 1949 it may be placed at 34.5 million, or 1.11 times as large. Although these two concepts apparently are not quite co-extensive, their comparison indicates that the average annual wage (or salary) has increased by 1949 to  $\frac{2.11}{1.11} = 1.90$  of the 1940 level.

To compare current hourly wages with prewar hourly wages we have to allow for the lengthening of the work week. A 48-hour week has been in effect since June 1940. Previously, working hours were five seven-hour days out of six, which is equivalent to about 41 hours on a seven-day week basis.<sup>2/</sup> Let us take 44.5 hours as being the average work week in 1940. Then, the 1949 work week is  $48 \div 44.5$ , or 1.07 times as long as the 1940 work week. Hence, the hourly money wage (or salary) in 1949 is  $1.90 \div 1.07 = 1.76$  times that in 1940.

Similar calculations for 1948 yield:

Average annual money wage (or salary) -- 1.78 times  
the 1940 level.

Average hourly money wage (or salary) -- 1.66 times  
the 1940 level.

These results compare with the following recent statements in the Soviet press: "The average monthly earnings of workers and employees in the Ukrainian SSR were 78 per cent higher in September 1948 than in September 1940" (Bolshevik, No. 3, 1949, p. 26); "The average /money/ earnings of workers in the industry of Moscow have more than doubled in comparison with 1940" (Pravda, February 2, 1949, p. 2).

<sup>1/</sup> cf. Bergson, A.: "A Problem in Soviet Statistics," The Review of Economic Statistics, Vol. XXIX, #4, November 1947.

<sup>2/</sup> Bergson, A.: "Russian Defense Expenditure," Foreign Affairs, Vol. 26, No. 2, January 1949, p. 374.

Annex B. - National Income

Baran has estimated net national income (western concept) in 1940 to have been 302.38 billion current rubles.<sup>1/</sup> However, he has included a figure of 22.93 bill. r. of profits of enterprises (other than collective farms). On the whole, this category represents more on the administratively determined levy (akin to the turnover tax) than a return to a factor of production. We therefore subtract it from his national income estimate, leaving 279 bill. rubles as our approximation for 1949.

Data on the various national income elements are almost wholly lacking for the postwar years. However, approximations may be obtained by assuming that national income in current rubles has grown in proportion to the increase in the wage bill of the economy. Thus, using our estimates in A A, and referring to the "comprehensive" wage bill of 161 bill. r. for 1940, we obtain net national income estimates as follows:

1947 -- 485 bill. r.  
1948 -- 534 bill. r.  
1949 -- 587 bill. r.

These estimates, of course, refer to the income produced within the USSR, i.e., exclusive of the net inflow of goods and services from abroad. These would add 1-2 per cent to the national income.

Annex C. - Depreciation

Depreciation allowances in the whole economy totaled 7,933 mill. rubles in 1939, of which 53.1 per cent was earmarked for "capital maintenance," and 46.9 per cent for replacement.<sup>2/</sup> By 1940 they probably reached 10 bill. rubles, of which 5 bill. rubles were in industry.<sup>3/</sup> As a rule depreciation allowances are computed as a definite percentage of the original cost of the equipment. Thus, they probably seriously understate the actual replacement costs in view of the steady price increases before the war.

No postwar data on total depreciation are known. Because of wartime destruction of equipment and of the postwar subsidization of producers' goods prices, it is doubtful that total depreciation allowances have risen anywhere as much as money national income. It appears that 15 bill. r. would be a maximum figure to assume in this regard, of which we may assume 8 bill. r. to be earmarked for "capital maintenance," and 7 bill. r. for replacement.

<sup>1/</sup> Baran, P. A., op. cit.

<sup>2/</sup> Buzyrev, V. S. (ed.), Finansirovaniye i Kreditovaniye Kapitalnykh Vlozhenii, 1941, p. 49.

<sup>3/</sup> Kantor, L. M., Osnovnye Fondy Promyshlennosti i ikh Ispolzovaniye, 1947, p. 37.

Annex D. - Retail Sales

The value of retail sales in state and cooperative stores during 1947 was planned at 325 bill. rubles (Pravda, March 1, 1947). Considering that turnover taxes in 1947 were undercollected by 15 bill. r., in part due to the price reform two weeks before the end of the year, we may assume actual retail sales in that year to have amounted to 310 bill. r. Of this, 70.4 bill. r., or 22.7 per cent, was sold through consumer cooperatives (Klimov, A. in Voprosy Ekonomiki, No. 6, 1948, p. 99), which checks with the statement by the same author (p. 100) that cooperative sales account for 22 per cent of total sales in "the postwar period." But, consumer cooperatives account for "about 9/10" of total retail sales by cooperatives (Lifits, M. M., Sovetskaya Torgovlya, Moscow, 1948, p. 28). Thus total retail sales in cooperative stores in 1947 may be placed at 77 bill. r., or 25 per cent of our estimate of actual sales in both state and cooperative stores.

The alleged "saving" to the population because of lower prices in state stores after December 15, 1947, has been stated to be 57 bill. r. per year, indicating an equivalent decrease in turnover tax receipts from state trade on this account. Since state trade comprises .75 (= 1 - .25) of total sales (as above), the "saving" on both state and cooperative sales can be placed at 76 (= 57 ÷ .75) bill. r. during 1948, and an equivalent turnover tax loss to the budget may be assumed. Turnover tax receipts were planned at 255 bill. r. in 1947, and at 280 bill. r. in 1948. We now compute the planned retail sales (in state and cooperative stores) for 1948--

$$= \left[ \frac{325}{255} \times (280 + 76) \right] - 76$$

$$= 378 \text{ bill. rubles}$$

In 1948 turnover taxes were again undercollected (by 33 bill. r.), and probably only partly so because of the two minor price reductions in the course of the year. Thus, 350 bill. r. would seem to express the order of magnitude of actual retail sales (state and cooperative) in 1948, of which 87 bill. r. (= 350 x .25) may be attributed to cooperative stores. The increase over actual sales in 1947 is 40 bill. rubles.

This increase is only somewhat smaller than the increase (49 bill. r.) in our estimates of national income for 1947 and 1948. (Annex A.) This is, of course, as might be expected in a system where the chief means of maintaining stability in the volume of currency in circulation is by adjusting the value of retail sales (by manipulation of turnover tax rates) to the currently-earned purchasing power.

The revamping of the turnover tax structure in 1949 makes it excessively risky to estimate the value of planned retail sales for 1949 by comparing tax receipts and considering the alleged additional "savings" arising out of the March 1 price reductions. However, we may arrive at planned value of retail sales in 1949 by adding to our estimate for planned retail sales in 1948 (378 bill. r.) an amount bearing the same proportion

to the increase in national income (53 bill. r.) as was the case in the preceding year, i.e., by 43 bill. r. ( $= \frac{40}{49} \times 53$ ). Thus, planned retail sales (state and cooperative stores only) in 1949—421 bill. r. (= 378 + 43).

Retail sales by cooperatives were planned to be 20 per cent greater (in value?) in 1949 than in 1948 (Pravda, March 21, 1949; p. 2). Upping our estimate for 1948 (87) by 20 per cent we obtain 104 bill. r., leaving 317 bill. r. for state stores.

The annual "saving" to the population as a result of the March 1, 1949, price reductions is claimed to be 48 bill. r. Proportionately, the "saving" for total (state and cooperative) sales would be

$$48 \times \frac{421}{317} = 64 \text{ bill. rubles.}$$

The average price reduction as a result of the decree would thus be  $\frac{64}{421 + 64} = 13$  per cent. The propaganda nature of the statement on which this calculation is based must be borne in mind, although such an over-all price reduction does not appear to be inconsistent with the announced reductions on specific commodities.

The distribution of retail sales (in state and cooperative stores only) between foodstuffs and non-food articles is possible on the basis of the statement that total retail sales in the first quarter of 1949 were 22 per cent larger than in the first quarter of 1948 (at comparable prices) while the sale of foodstuffs and non-food articles increased by 15 and 38 per cent, respectively (N. Y. Times, April 24, 1949). The share of foodstuffs in total sales then is

$$= 1 - \frac{(1.22 - 1.15)}{(1.38 - 1.15)} = 69.6 \text{ per cent.}$$

Lastly, we have to account for the retail trade in the open ("kolkhoz") market, which we have ignored up to this point. It has been stated that kolkhoz and cooperative trade together account, in value, for half as much as state trade (Pravda, March 1, 1949), at least in 1948 and 1949. By applying this information, we can construct the following summary table of estimated retail trade in the USSR (1940 data from Lifits, op. cit., p. 33):

	1940	1947	1948	1949	1940	1949
	Actual	Actual	Actual	Plan	Actual	Plan
	Billions of rubles				Per cent	
State stores.....	128.5	233	263	317	59.5	66.7
Cooperative stores.....	46.6	77	87	104	21.5	22.0
Subtotal.....	175.1	310	350	421	81.0	88.7
Open ("kolkhoz") market.....	41.2	?	45	54	19.0	11.3
Total.....	216.3		395	475	100.0	100.0

Turnover tax collections are budgeted for 1949 at 262 bill. r., indicating that the value of retail trade (state and cooperative) at producers' prices would be 159 (= 421 - 262) bill. r. (This ignores the fact that turnover taxes are still collected on petroleum products, but the error is believed to be quite small.)

Annex E. - Money Receipts and Outlay of the Population

The following attempt at constructing a "balance of money receipts and outlay of the population" for 1949 may be made on the basis of our estimates and Soviet data. The crudeness of this "balance" must be borne in mind.

<u>Receipts of the Population:</u>	<u>Bill. of rubles</u>	<u>Source of data</u>
National income earned	587	Annex B
Less: Consumption in kind	73	<u>1/</u>
Money national income earned	514	
Add: Social insurance payments	17	Budget speech
Social security, pensions, etc.	21	Budget speech
Public debt service	4	Rough estimate
Total money receipts	<u>556</u>	
 <u>Outlay of the Population:</u>		
Retail commodity purchases	475	Annex D
Direct taxes	37	Budget speech
Loans to state (incl. increment in savings deposits)	23	Budget speech
Income taxes on non-state enterprises <u>2/</u> )	12	Rough estimate
Miscellaneous fees, etc. <u>2/</u> )	(?)	
(Purchases of various services)		
Total money outlay	<u>547</u>	

The excess of receipts over outlay (9 bill. r.) would represent the increase in currency in circulation, were it not of very questionable reliability since it reflects all of the errors and omissions in our "balance."

1/ Estimated to constitute the same fraction of national income as in 1940; cf. Baran, op. cit., p. 229, and Annex B to this article.

2/ Only insofar as not included in the value of retail trade.