

The Dollar and Gold (*)

by

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As a rule, discussions about the adequacy of gold reserves are related to the magnitude of imbalances which are apt to arise in foreign payments assuming currencies to be convertible and trade to flow unimpeded by quantitative restrictions.

The domestic aspect of the problem of the gold reserve has lost significance through the suspension, by most countries, of the obligation for the central banks to cover in gold a certain fraction, variously defined, of their sight liabilities. It is also generally ignored in the case of the United States, where the obligation has remained in force. In fact the concentration in that country of about 23 billion (1) dollars of monetary gold, out of a world stock of 36 billion, creates in other countries the impression that America is adequately supplied with gold (2); and one reads that within the country as well there are groups who optimistically envisage the adoption of a gold specie standard.

A reconsideration of this domestic American aspect of the gold problem, and of its relation to the price of gold (3), may be in order after

several years of neglect (4). It will be carried out in the light of past and prospective developments in the United States.

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Among the basic facts underlying what has recently come to be called the international liquidity crisis are the following:

(a) Between 1934 and 1941 nearly three-quarters of the world's gold reserves became concentrated in the United States (Table 1).

(b) The dollar value of world trade has risen from 23.7 billion dollars in 1938 to some 80 billion in 1951 and 1952, or in the ratio of 1 to 3.4. This was mainly because American prices rose during that period in the ratio of 1 to 2.2, while the prices of the goods which enter into international trade rose still more.

Over the same period there has been a large relative expansion in the liquid reserves held by the banks, by firms and by individuals, especially in the form of short-term Government debt; reserves which can be drawn upon to exert demands for foreign exchange (5).

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(1) The term « billion » is used in this article to mean 1,000,000,000. Dollars are implied unless otherwise stated.

(2) « Par pénurie d'or on entend que la quantité de ce métal est insuffisante pour soutenir l'organisation du crédit nécessaire au maintien des prix à un niveau uniforme pendant une longue période ». (Report of the Gold Delegation of the League of Nations, September, 1930). To the stability of prices it seems necessary to add a further condition, namely that such stability should be achieved at a satisfactory level of employment of productive resources.

(3) The expression « price of gold » has been adopted in the present study in preference to « gold parity of the dollar » because it is wider in scope. Under present world economic conditions it is in fact most probable that any change in the gold parity of the dollar would be followed by a corresponding change in the parity of most other currencies, so as to preserve

unchanged the present rates of exchange against the dollar. Reference to the price of gold is intended to cover this probable indirect effect of a change in the gold parity of the dollar. The Statute of the International Monetary Fund contemplates (in Section 1) a uniform change in the par value of all the members' currencies. The Fund may decide on such a change provided that it is approved by each of the members having 10 per cent or more of the total quotas, which means by the United States and the United Kingdom. Such a decision by the Fund will not apply to the currencies of members who state within 72 hours that they are opposed to the change.

(4) An analysis of the position was made, before the passing of the 1945 bill which reduced the reserve ratio for F. R. Banks, by R. I. ROBINSON (Federal Reserve Bulletin, March, 1945).

(5) As to the relations between internal liquidity and the need for foreign exchange reserves readers may refer in particular to the book by W. J. BUSSCHAU, *The Measure of Gold* (Central News Agency, Ltd., South Africa, 1950), and to the Annual Reports of the Netherlands Bank for 1951 and 1952.

It may be estimated that about two-thirds of the net influx of \$ 15 billion of gold into the United States between 1934 and 1941 was

as a worsening in its international debtor-creditor position. At the end of 1940 the total of foreign investments, both short and long-

WORLD GOLD RESERVES (a)
(billions of dollars)

TABLE I

| | Total (b) | International Institutions | United States | Canada | France | United Kingdom | Other Countries |
|--------------------------|--------------|-------------------------------|------------------|--------|--------|-------------------|--------------------|
| December 1929 | 17.2 | — | 6.6 | 0.1 | 2.8 | 1.2 | 6.5 |
| » 1933 | 21.1 | — | 6.8 | 0.1 | 5.1 | 2.1 | 7.0 |
| » 1938 | 26.0 | — | 14.6 | 0.2 | 2.8 | 3.5 | 4.9 |
| » 1941 | 31.0 (c) | — | 22.7 | 0.2 | 2.0 | 0.2 | 5.9 |
| » 1945 | 33.8 | — | 20.1 | 0.4 | 1.1 | 2.0 | 10.2 |
| » 1947 | 34.6 | 1.4 | 22.9 | 0.3 | 0.5 | 2.0 | 7.5 |
| September 1949 | | 1.5 | 24.7 | 0.5 | 0.5 | 1.4 | |
| December 1949 | 35.4 | 1.5 | 24.6 | 0.5 | 0.5 | 1.4 | 6.9 |
| June 1950 | 35.8 | 1.6 | 24.3 | 0.5 | 0.5 | 2.4 | 6.5 |
| » 1950 | 35.9 | 1.7 | 21.9 | 0.7 | 0.5 | 3.5 | 7.6 |
| » 1952 | 36.1 | 1.7 | 23.5 | 0.9 | 0.5 | 1.4 | 8.1 |
| » 1953 | 36.4 | 2.0 | 22.5 | 0.9 | 0.6 | 1.9 | 8.5 |

(a) 1 ounce fine=35 dollars. (b) Excluding U.S.S.R. (c) Estimate.

Sources: Federal Reserve Board, *Banking and Monetary Statistics*, 1943, and *Federal Reserve Bulletin*; International Monetary Fund, *International Financial Statistics*; for United Kingdom, Cmd. 8354. The reserves considered are those of banks, governments and exchange stabilisation funds.

due to the net import of capital, mostly at short-term, while one-third arose from the net surplus in the current account items of the balance of payments (Table 2). Thus the

term in the United States (\$ 13.5 billion), exceeded by more than a billion the total of American investments in foreign countries (\$ 12.3 billion).

The gold movement towards the United States started immediately after the dollar was devalued. Americans who had taken their short-term funds out of the United States in anticipation of the devaluation repatriated them; and European funds flowed in response to the incentives provided by expectation that the gold block currencies would be devalued, by the deterioration of political conditions in Europe, by the unfriendly policies of certain Governments towards private capital, and by the opportunities for buying back on cheap terms bonds which had been placed on the American market before 1930.

Up to the summer of 1936 the American authorities allowed the gold inflow to produce its full effect in creating additional reserves for the commercial banks. They kept their holding of Government securities steady, and made rediscounts progressively easier. Their eligibility conditions had already been eased in the first years of the depression; and the

Sources: *Banking and Monetary Statistics* for the years 1934-41, and *Statistical Abstract of the United States* for the years 1946-49.

FACTORS AFFECTING GOLD INFLOW
TO THE UNITED STATES
(billions of dollars)

| Items | 1934 1940 | 1941 | 1946 1947 | 1948 1949 |
|--------------------------------|--------------|-------|--------------|--------------|
| Goods | + 3.4 | + 1.8 | + 15.4 | + 10.8 |
| Services | + 0.8 | + 0.5 | + 2.9 | + 2.2 |
| Unilateral transfers | - 1.1 | - 1.1 | - 4.6 | - 10.6 |
| Long-term capital | + 1.9 | - 0.6 | - 11.4 | - 3.1 |
| Short-term capital | + 5.6 | - 0.4 | - 0.7 | + 0.4 |
| Other items | + 3.5 | + 0.5 | + 1.2 | + 2.0 |
| Gold inflow - Total | 14.1 | 0.7 | 2.8 | 1.7 |

greater part of the influx reflected not so much an increase in the competitive power of the United States during the corresponding period

rediscount rate in New York was reduced by steps of ½ per cent from 2½ per cent in September, 1933 to 1 per cent in August, 1937

the same until the later stages of the war (1943), while the gold inflow continued to create excess reserves (Table 3). The business

MONEY AND CREDIT IN THE UNITED STATES
(billions of dollars)

TABLE 3

| Month of December | Federal Reserve Banks - Principal Assets and Liabilities | | | | | | Short-term liabilities reported by banks in the United States | | Wholesale Prices, Index Numbers, 1947- 1949=100 (c) |
|-------------------------|--|---|---|---|------------------------------------|-------------------------|--|-----------------|---|
| | Discounts and Advances (a) | United States Government securities (a) | Gold certifi- cate reserves (b) | Ratio of gold certi- ficate re- serves to deposit and Federal Reserve note liabi- lities com- bined (per cent) (b) | Liabilities | | Total (b) | Official (b) | |
| | | | | | Federal Reserve Notes (b) | Member bank reserves | | | |
| 1928 | 1.5 | 0.3 | 2.6 | 63.3 | 1.8 | 2.4 | — | — | 62.9 |
| 1929 | 1.1 | 0.4 | 2.9 | 69.6 | 1.9 | 2.4 | — | — | 61.9 |
| 1930 | 0.6 | 0.6 | 2.9 | 73.3 | 1.7 | 2.4 | 0.1 | 2.3 | 56.1 |
| 1931 | 1.1 | 0.8 | 3.0 | 66.5 | 2.6 | 2.1 | 0.1 | 1.3 | 47.4 |
| 1932 | 0.3 | 1.9 | 3.2 | 62.9 | 2.7 | 2.4 | 0.5 | 0.7 | 42.1 |
| 1933 | 0.2 | 2.4 | 3.6 | 63.8 | 3.1 | 2.6 | 0.8 | 0.4 | 42.8 |
| 1934 | .. | 2.4 | 5.1 | 70.8 | 3.2 | 4.0 | 1.7 | 0.6 | 48.7 |
| 1935 | .. | 2.4 | 7.6 | 77.6 | 3.7 | 5.7 | 3.0 | 1.2 | 52.0 |
| 1936 | .. | 2.4 | 8.9 | 80.1 | 4.3 | 6.7 | 2.0 | 1.5 | 52.5 |
| 1937 | .. | 2.6 | 9.1 | 79.9 | 4.3 | 6.9 | 1.1 | 1.7 | 56.1 |
| 1938 | .. | 2.6 | 11.8 | 83.7 | 4.5 | 8.7 | 3.2 | 2.2 | 51.1 |
| 1939 | .. | 2.5 | 15.2 | 86.7 | 5.0 | 11.5 | 5.0 | 3.2 | 50.1 |
| 1940 | .. | 2.2 | 19.8 | 90.8 | 5.9 | 14.0 | 6.6 | 3.9 | 51.1 |
| 1941 | .. | 2.2 | 20.5 | 90.8 | 8.2 | 12.8 | 3.4 | 3.7 | 56.8 |
| 1942 | .. | 5.5 | 20.6 | 76.3 | 12.2 | 13.2 | 2.4 | 4.2 | 64.2 |
| 1943 | 0.1 | 11.2 | 19.8 | 62.6 | 16.9 | 12.7 | 1.0 | 5.4 | 67.0 |
| 1944 | 0.3 | 18.7 | 18.7 | 49.0 | 21.7 | 14.2 | 1.3 | 5.6 | 67.6 |
| 1945 | 0.4 | 23.7 | 17.9 | 41.7 | 24.6 | 16.0 | 1.5 | 6.9 | 68.8 |
| 1946 | 0.3 | 23.8 | 18.4 | 43.5 | 24.9 | 16.5 | 0.9 | 6.0 | 78.7 |
| 1947 | 0.3 | 21.9 | 21.5 | 48.3 | 24.8 | 17.3 | 1.0 | 4.9 | 96.4 |
| 1948 | 0.3 | 23.0 | 23.0 | 48.9 | 24.2 | 20.0 | 0.8 | 5.9 | 104.4 |
| 1949 | 0.2 | 18.3 | 23.2 | 54.7 | 23.5 | 16.3 | 0.8 | 6.0 | 99.2 |
| 1950 | 0.1 | 20.3 | 21.5 | 49.4 | 23.6 | 17.4 | 1.0 | 6.9 | 103.1 |
| 1951 | 0.7 | 23.4 | 21.5 | 46.4 | 25.1 | 20.3 | 0.8 | 7.6 | 114.8 |
| 1952 | 1.6 | 24.4 | 22.0 | 46.2 | 26.3 | 21.1 | 0.7 | 8.8 | 111.6 |
| 1953 - June | 0.4 | 24.7 | 21.3 | 46.0 | 25.8 | 20.3 | 0.8 | 9.1 | 109.5 |

Note: The symbol . . . indicates a figure less than 50 million dollars.

(a) Daily December averages. (b) End of month. (c) Annual averages.

Sources: *Banking and Monetary Statistics*, and *Federal Reserve Bulletin*.

(with similar reductions in other parts of the country). This easy credit policy failed to have much effect in counteracting the business recession or in discouraging Americans from repatriating capital in face of their desire for security and their distrust of foreign investments following their experiences of transfer restrictions and defaults. Rediscounts at the Federal Reserve Banks dropped almost to nil in the second half of 1934, and stayed about

revival in 1936-37 and the expansion in the volume of borrowing seemed to offer the authorities, who were concerned for fear the excess reserves might eventually give rise to inflation, a chance to regain control of the market (6). The minimum reserve require-

(6) E. A. GOLDENWEISER, *American Monetary Policy*, 1951; and by the same author *Instruments of Federal Reserve Policy* in « *Banking Studies* », a volume published the Federal Reserve Board in 1941.

ments were raised by 50 per cent in August, 1936. And from the end of that year the new gold imports were placed in an inactive Treasury account without issuing any gold certificates, so that they should not lead to the creation of fresh reserves for the commercial banks. In March and May of 1937 the reserve requirements for the commercial banks were again twice raised, so that they reached the maximum levels permitted by law. For a few months around the middle of 1937 this policy succeeded in bringing the excess reserves down below the billion mark. By the autumn of that year however, the continuation of the gold inflow, coupled with the recession in business, had again eased the banks' reserve position, and in the spring of 1938 the Federal Reserve authorities gave up their attempt to regain contact with the market in face of the further slackening in economic activity. The minimum reserves for banks were lowered again and the gold sterilisation policy was abandoned. In 1939 and 1940 the excess reserves reached levels never touched before or since.

During the period of the heavy inflow of gold both production and prices showed a rising trend, passing through three phases: first a recovery from 1934 to 1937, then a falling off in the recession of 1938, and then a further recovery. The index of wholesale prices, on the base 1947-49=100, had stood at 43 in 1933, rose to 56 in 1937, dropped to 51 in 1938, and in 1941 moved up again to 57 (Table 3). The index of industrial output, on the base 1935-39=100, rose from 69 in 1933 to 113 in 1937, fell away to 89 in 1938, but in 1941 was up again to 162.

In the two phases of expansion the gold inflow was even more rapid than during the recession. That fact, coupled with the reasons already mentioned for the flight of capital to America, seems to justify the conclusion that even though a bolder policy of monetary expansion might have enabled America to use its productive capacity more fully and more continuously, it would have done little to arrest the gold inflow. In so far as the net debtor-creditor position towards foreign countries deteriorated, it was in any case desirable to increase the gold stock by way of offset. As to that part of the gold inflow which arose

from the surplus in the balance of payments on current account it is worth remarking that the Governments which later took part in the war had the clear intention of using their gold and foreign exchange reserves to pay for their war preparations. This applied not only to Governments in Europe but also to that of Japan, which exported some \$ 700 million of gold to the United States between 1937 and 1940. The Governments in question used the proceeds partly for strategic stockpiling, and partly to push their armaments programmes at a pace which threw their balances of payments out of equilibrium. Even if a more expansive policy on the part of the United States had increased the receipts of those countries in dollars (and also in other currencies through triangular trade), that policy would have led not so much to a slower draining away of their foreign exchange reserves, as to an increase in the extent of their rearmament, making the war still fiercer.

The effect of the United States' entering the war was to reduce the commercial banks' excess reserves in two ways. First, between the end of 1941 and the end of 1945 the United States lost nearly three billions of gold mainly to South American countries which remained more or less outside the conflict. At the same time the country's money supply in the form of notes and demand deposits trebled in amount, and so did the volume of bank credit. This clearly inflationary movement was reflected only in part in the official index of wholesale prices which, owing to price controls between 1941 and 1945, rose by only 20 per cent. When, however, the controls were removed in 1946-47 the rise became faster, and the total rise from 1940 to 1947 amounted to 90 per cent.

Owing to the increase in the note circulation and in deposits the Federal Reserve Banks' gold cover for sight liabilities fell from 90.8 per cent at the end of 1941 to 49.0 per cent at the end of 1944. This led to the cover requirement being lowered in June, 1945 from 40 per cent for notes and 35 per cent for deposits to 25 per cent for both. At the end of 1945 the cover dropped to 41.7 per cent. At that time none of the 12 Federal Reserve Banks had a cover ratio of less than 34 per cent, so

that all had a certain margin as compared with the new legal minimum of 25 per cent. The reserve position of the commercial banks was also fairly easy, although this was due to the large cuts which were made in 1942 in the minimum requirements for the two central reserve cities New York and Chicago. Without those cuts the deposits outstanding at member banks of the Federal Reserve System in the New York and Chicago districts in December, 1945 would have required total reserves of \$ 6.4 billion, which was about \$ 1.4 billion more than the reserves they actually had. For the first time since the 1930-31 crisis the minimum reserve requirement almost took effect as a factor limiting the volume of credit. It did not actually do so because the requirements were reduced.

This reduction may at first sight appear unimportant when it is recalled that between the end of 1941 and the end of 1945 the Federal Reserve Banks increased their holdings of Government securities from 2.2 to 23.7 billion dollars. If the note circulation and the gold reserves had remained at their end of 1941 levels, this growth in the investments of the Federal Reserve Banks would have caused an equivalent growth in the commercial banks' deposits at those Banks and therefore in their reserves. In fact however between the end of 1941 and the end of 1945 the note circulation of the Federal Reserve Banks rose by 16.4 billion (from 8.2 to 24.6 billion); and the System's gold holdings fell by 2.6 billion (from 20.5 to 17.9 billion) (Table 3). These two movements absorbed 19.0 billion of Central Bank credit out of the 21.5 billion created through the System's buying of Government securities. The residue of 2.5 billion which went to expand the commercial banks' reserves is of an order of magnitude not very different from that of the saving of reserves (1.4 billion) due to the reduction in reserve requirements in the New York and Chicago districts.

From the end of 1945 until sterling was devalued in 1949 gold again flowed to the United States; and the effect was to raise the American gold stock from its post-war minimum of \$ 20.0 billion in November, 1945 to a peak of \$ 24.7 billion in September, 1949. It also raised the gold cover of the Federal

Reserve Banks' sight liabilities from 41.7 per cent at the end of 1945 to 56.3 per cent in September, 1949.

No similar movement took place in the excess reserves of the commercial banks, which were kept at the modest level of between 700 million and a billion dollars. The method was to use a part of the budget surpluses during the period to reduce the Federal Reserve Banks' holdings of Government securities. These reached a post-war low of 17.4 billion in September, 1949, thus being reduced by 6.3 billion from the end-of-1945 level. Their movement was only in small part offset by the drop of 1.3 billion in the note circulation, which fell during the period from 24.6 to 23.3 billion. The policy of mild deflation was never pushed to the point of making credit tight; on the other hand it failed to prevent the emergence of the recession of 1949. In August of that year the monetary authorities reduced the commercial banks' minimum reserve requirements with a view to reflation. Their action, however, followed the beginning of the decline in productive activity which dated from December, 1948, with a considerable delay. Moreover, it was reflected not so much in a growth in credit granted to producers as in increased buying by the commercial banks of Government securities, which enabled the Federal Reserve Banks to bring down their own holdings of these more rapidly. Thus the amount of Government securities held by the commercial banks and savings banks, which had already risen from 74.1 billion in December, 1948 to 76.1 billion in July, 1949, touched 78.3 billion in August of that year and 79.5 billion in January, 1950. On the other hand the volume of lending by those institutions to the country's economy remained throughout the year between 48 and 49 billion.

The inflow of gold was especially large in 1946 and 1947 between the end of Lend-Lease and the start of the Marshall Plan. In those two years the United States granted about \$ 7 billion of Government loans comprising the British loan, loans of the Export-Import Bank and others, plus some \$ 5 billion of assistance under the heads of UNRRA, civilian supplies and Lend-Lease residues.

The aid given under these heads covered two thirds of the surplus in the balance of payments on current account. This surplus remained during the two years at the very high level of about \$ 9 billion per annum which it had reached in the last two years of the war.

The United States in 1946-47 were going through a phase of open inflation; the price index rose by 50 per cent between the end of 1945 and the end of 1947. The Federal Reserve Banks partly neutralised the expansive effect

left behind by the war as well as on budget deficits. Cheap money policies, the bad harvests of both 1946 and 1947, and the coal crisis in the winter of 1946-47, all helped to swell the excess demand. Latin America was using the gold and foreign exchange balances accumulated during the war to pay for deferred imports, Argentina alone sending nearly \$ 900 million of gold to the United States in the two years. The other principal sources of the gold inflow to the United States were Canada, the

TABLE 4.

PRICES, GOLD AND DOLLAR RESERVES IN SELECTED COUNTRIES

| Countries | Wholesale price indices (1937=100) | | | Net gold export to United States | | Gold and dollar reserves (millions of dollars) | | | | | |
|---|---------------------------------------|---------|---------|-------------------------------------|------------|--|--------|--------|-------------|-------|-------|
| | December | | | (millions of dollars) | | Gold | | | Dollars (4) | | |
| | 1945 | 1947 | 1949 | 1946-47 | 1948-49 | 1945 | 1947 | 1949 | 1945 | 1947 | 1949 |
| United States . . . | 124 | 189 | 175 | -3,586 (3) | -1,703 (3) | 20,083 | 22,868 | 24,563 | | | |
| United Kingdom . . | 156 | 187 | 222 | 407 | 1,181 | 1,996 | 2,020 | 1,350 | 708 | 326 | 574 |
| Canada | 123 | 170 | 185 | 649 | 3 | 361 | 294 | 496 | 1,522 | 410 | 869 |
| South Africa . . . | 157 | 175 | 194 | 350 | 694 | 914 | 762 | 128 | | | |
| France | 527 | 1,368 | 2,242 | 265 | 16 | 1,090 | 548 | 523 | 310 | 168 | 172 |
| Holland | 200 | 258 | 283 | 131 | 17 | 270 | 231 | 195 | 282 | 143 | 170 |
| Sweden | 167 | 180 | 192 | 318 | 3 | 482 | 105 | 70 | 210 | 59 | 90 |
| Belgium | 333 (2) | 374 | 365 | 237 | 29 | 716 | 597 | 698 | 185 | 125 | 120 |
| Switzerland | 193 | 209 | 192 | - 20 (3) | - 46 (3) | 1,342 | 1,356 | 1,504 | 304 | 446 | 577 |
| Continental Europe - Total | | | | | | 5,048 | 3,444 | 3,758 | 1,875 | 1,650 | 1,940 |
| Argentina | 134 (1) | 179 (1) | 267 (1) | 891 | 64 | 1,197 | 322 | 216 | | | |

(1) Cost of living. (2) December, 1946. (3) Imports. (4) Including private holdings.

Sources: United Nations, *Statistical Year-Book* and International Monetary Fund, *International Financial Statistics*.

of the addition of 2.6 billion to their gold holdings by parting with \$ 1.8 billion of Government securities, and thereby brought the commercial banks' excess reserves down to just below a billion dollars. The rise in prices was however caused by an increase in the velocity of circulation of the means of payment rather than by an increase in their amount.

The continuance of so large a surplus on the U.S. balance of payments in spite of internal inflation becomes intelligible if one considers the position of the rest of the world. In Europe reconstruction needs, in both the Government and the private sectors of the economy, also led to inflation, based on use of the liquid balances

United Kingdom and countries on the continent of Europe. In all these countries the inflationary pressure was only partly reflected in price movements (Table 4) because quantitative controls on consumption and investment were maintained, as well as Government subsidies and other price controls. The countries where a condition of repressed inflation existed can be distinguished from those where the movement of prices and of the money supply was freer (such as the United States, Belgium and Switzerland) by the fact that the rise in their prices continued during 1948 and 1949.

In these last two years the forces of inflation became weaker on the continent of Europe; a fact which, together with Marshall Aid,

caused them to stop losing gold. The further flow of gold to the United States was then fed partly from the British stock, and partly by South African gold taken both from reserves and from current production.

Among the factors causing this loss of gold by the sterling area were the effect of the anticipation of the devaluation of sterling (which was compensated by the opposite movement after sterling had in fact been devalued), and the American recession of 1949 which caused imports into the United States to decline in that year to \$ 9.7 billion after having reached \$ 10.4 billion in 1948.

The work of the bodies administering Marshall Aid as from the spring of 1948 was governed from the outset by directives laying down that the aid must be used to expand capital investment rather than to reconstitute foreign exchange reserves.

In actual fact during 1948 and 1949 European continental countries increased their dollar holdings by about \$300 million, and their gold holdings by an equal amount (Table 4). Even the United Kingdom, while it lost gold, substantially added to its dollar reserves. Thus its official gold and dollar holdings which had stood at \$ 2.1 billion at the end of 1947, and fell to \$ 1.4 billion in September, 1949, rose again to \$ 1.7 billion in December of that year and to \$ 2.4 billion in June, 1950 (7).

In fact during the 1949 recession, just as during that of 1938, the course of economic events within the United States appears to have mainly affected the foreign exchange position of the sterling area. In continental European countries on the other hand the internal inflationary pressure was corrected, and the favourable effect of this outweighed the adverse influence of the American recession.

(7) The official reserves of gold and dollars managed from London moved as follows:

| | | Millions of \$ |
|-------|------|----------------|
| Dec. | 1945 | 2,470. |
| Dec. | 1947 | 2,079 |
| Sept. | 1949 | 1,425 |
| Dec. | 1949 | 1,688 |
| March | 1950 | 1,984 |
| June | 1950 | 2,422 |
| June | 1951 | 3,867 |
| March | 1952 | 1,700 |
| June | 1952 | 1,685 |
| June | 1953 | 2,367 |
| Sept. | 1953 | 2,486 |

With the devaluation of sterling, the recovery of production in the United States, and the continuation of monetary stability, the continent of Europe made gradual but continuous progress between the autumn of 1949 and that of 1950 towards equilibrium in the balance of payments. Changes in American demand again affected the foreign exchange position of the sterling area after June, 1950. In the second half of that year and the first half of 1951 the renewal of inflationary pressure was accompanied in the United States and in some large European countries, such as Germany and Italy, by a considerable deterioration in their foreign exchange position to the benefit of the sterling area. Within that area the benefit went particularly to the overseas countries producing raw materials, so that the growth in the dollar pool managed by London was accompanied by a rise in the sterling balances of those countries. The one and a half billion added to the British gold and dollar reserves between June, 1950 and June, 1951 (when the official holdings rose from \$ 2.4 billion to \$ 3.9 billion) were in part returned to the United States, and in part redistributed to the continent of Europe through the large purchases made by the overseas countries of the sterling area, in the second half of 1951 and the early months of 1952. Thus by March, 1952 the British reserves were back at the end-of-1949 level of \$ 1.7 billion. This position was subsequently corrected by the severe import restrictions imposed by Commonwealth countries, so that by September, 1953 the reserves had returned to \$ 2.5 billion. Meanwhile the United States, after having between June, 1950 and June, 1951 lost \$ 2½ billion of gold and increased their foreign indebtedness by about half a billion, in the next twelve months regained \$ 1.5 billion. This gain however was largely fictitious, because at the same time their short-term indebtedness to foreign countries rose by \$ 1.3 billion. By the middle of 1952 indeed the United States' total short-term indebtedness to foreign countries stood at over \$ 8 billion (of which \$ 4 billion were official balances) against barely one billion of American short-term claims on foreign countries. Towards the end of 1952 certain foreign Central Banks, in particular those of Great

Britain and the Netherlands, began to convert a part of their dollar balances into gold. The reduction in official dollar holdings of foreign countries continued during January and February 1953, accounting for roughly one half of the total gold outflow from the United States of nearly 700 million dollars which took place between the end of November, 1952, and the end of February, 1953. In the spring and summer months the dollar holdings of foreign countries, both official and private, were considerably increased; the gold outflow from the United States continued, however, and over the whole of the period between its start in December, 1952 and the end of September, 1953 it exceeded 1.2 billion dollars.

Through these movements the United States gold stock had fallen, by the end of the third quarter of 1953, to a level of 22.3 billion dollars, i.e. somewhat below the end-of-1947 level (22.9 billion). Over the same period, foreign dollar holdings increased from 4.9 to 9.2 billion; the increase was mainly for the account of the continental EPU countries, which moreover increased their gold reserves from 3.5 to 4.7 billion. Within the sterling area, an increase from 2.1 to 2.5 billion in the United Kingdom's gold and dollar holdings was roughly offset by a decrease from 0.7 to 0.2 billion in the gold reserves of the Union of South Africa.

By deducting from the gross figure for the United States gold stock the amount which is virtually at the disposal of foreign countries (calculated as the excess of the United States short-term dollar liabilities over their short-term dollar claims), it appears that roughly speaking the gold reserve at the disposal of the United States has been reduced from 19 billion dollars at the end of 1947 to 14 billion in the summer of 1953. Under the law, the gold reserve has to cover Federal Reserve Bank liabilities which increased from 44.5 billion at the end of 1947 to 46.1 billion at the end of June 1953. These sight liabilities include the reserves which have to be kept by the member banks of the system; and these have to cover deposits which rose between the two dates from about 109 billion to around 130 billion.

The state of affairs now is very different

from that at say the end of 1940, when the gold reserve covered 91 per cent of the Federal Reserve Banks' sight liabilities, and the commercial banks held reserves of 14.0 billion as against only 7.4 billion required. One must further remember that the national income in the United States grows fast, and that prices too have risen substantially during this century in the United States no less than in other countries. In the light of these facts one may well wonder whether the American gold reserves will much longer suffice to meet the legal requirement of 25 per cent cover for the sight liabilities of the Federal Reserve Banks. The problem is clearly of current interest, if only because it obviously bears on that of the price of gold.

* * *

According to estimates made by the Department of Commerce the gross national product of the United States rose between 1929 and 1952 at a rate of 5.4 per cent per annum at current prices and 3.1 per cent in real terms. The depression of the thirties is reflected in this latter rate of real increment, which is somewhat below that calculated by Kuznets for the period running from the decade 1869-78 to the decade 1919-28, when the nominal yearly increment was 5.1 per cent and the real increment 4.2 per cent. Over that period the gross national product in terms of current prices rose from an average of \$ 7.0 billion per annum in 1869-78 to \$ 81.2 billion in 1919-28. The rise in terms of dollars of 1929 purchasing power was from 10.3 to 77.8 billion (8).

If one postulates, for the next 20 years, two alternative nominal rates of yearly increment of 4 per cent and 5 per cent respectively, one arrives at the figures for the American gross national product which are shown in Table 6.

From the beginning of the 19th century, to the years of the great depression the ratio between total means of payment, or money supply, and national income in the United States followed a clear upward course, rising from 0.05 in 1800 to 0.19 in 1870, 0.72 in 1930 and 0.86 in 1935. In 1947 it was about 0.80,

(8) S. KUZNETS, *National Product Since 1869*, National Bureau of Economic Research, 1946.

and since then has fallen (9). This can be seen from Table 5, which however relates only to means of payment subject to the reserve requirements, or that is to about three-quarters of the total, and to the gross national product rather than to the national income proper.

If we assume the rising secular trend to have ceased, we may put the ratio for the next 10 to 20 years near to the most recent levels (i.e. at about 45 per cent), or we may put it higher (at 55 per cent) if we assign some weight to the experiences of the years immediately preceding the Korean War.

If we combine these coefficients of 0.45 and 0.55 with the two assumptions made about the growth in the national income, we arrive at forecasts of the movements in the volume of means of payment as shown in Table 6.

The amount of the gold reserves needed for internal cover purposes depends not only on the total money supply, but also on the relative importance of the two elements in the Federal Reserve Banks' sight liabilities: that is to say, the notes in circulation and the deposits, these last mainly consisting of deposits of the member banks. The average Federal Reserve note circulation during 1952 and the first half of 1953 was about 25 billion, and the deposits at member banks five times as great (125 billion). As will be seen from comparison of the first three columns in Table 5, the ratio of notes to deposits is a good deal higher than just before the war, but is no longer rising as it did in the war years. For purposes of our forecast, we assume that it remains constant at the present level of 1:5.

During the same 18 months period, the member banks maintained, against their deposits, reserves of about 20.4 billion. Throughout the whole period these reserves exceeded the required minimum by between 600 and 900 million dollars. The excess reserves can hardly be reduced any lower in a system comprising about 7,000 banks, among which some will have an easy position at the same time as others have a tight one (so that there is a market between the banks for loans of excess reserve funds). A few facts indicate that during the above mentioned period the reserve posi-

tion was tight. (a) About May-June, 1951, when the tightness in credit was at its height, the excess reserves were also about \$ 600 to 800 million. (b) From July 1952 to May 1953, the member banks rediscounted to an unusual extent at the Federal Reserve Banks in order to meet their reserve requirements. (c) At no time during the period did the banks in the two central reserve cities possess substantial excess reserves. We may thus assume that, if the commercial banks were to maintain the reserve percentages which prevailed during 1952 and the first half of 1953, they would have to keep reserves representing a ratio to deposits of *at least* 1/6 (20.4:125). We say *at least* because the rate of growth in demand deposits, which carry a higher reserve requirement, is faster than that in time deposits (Table 5). Following the reduction in member bank reserve requirements which took effect in July, 1953 the average ratio may be established at 15 per cent.

TABLE 5

MONEY SUPPLY SUBJECT TO RESERVE AND ITS RELATIONSHIP TO GROSS NATIONAL PRODUCT (billions of dollars)

| Years (a) | Federal Reserve Notes | Member bank deposits | | Money supply subject to reserve, Total | G. N. P. | Ratio (4)÷(5) (Per cent) |
|-----------|-----------------------|----------------------|------|--|----------|--------------------------|
| | | Demand | Time | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 1937 | 4.2 | 24.4 | 11.3 | 39.9 | 90.2 | 44.2 |
| 1938 | 4.2 | 24.7 | 11.5 | 40.4 | 84.7 | 47.6 |
| 1939 | 4.6 | 28.4 | 11.7 | 44.7 | 91.3 | 48.9 |
| 1947 | 24.5 | 77.3 | 28.0 | 129.8 | 233.3 | 55.6 |
| 1948 | 23.9 | 78.5 | 28.7 | 131.1 | 259.0 | 50.6 |
| 1949 | 23.4 | 78.6 | 29.2 | 131.2 | 258.2 | 50.8 |
| 1950 | 23.1 | 83.0 | 29.5 | 135.6 | 284.2 | 47.7 |
| 1951 | 24.0 | 89.3 | 30.2 | 143.5 | 329.2 | 43.6 |
| 1952 | 25.2 | 92.7 | 32.3 | 150.2 | 346.3 | 43.4 |

(a) The figures for the money supply are averages of end of quarter data.

Source: *Federal Reserve Bulletin*.

It is common knowledge that the 25 per cent reserve which the Federal Reserve Banks have to maintain does not consist directly of metallic gold, which since January, 1934 is all in the possession of the Treasury, but of gold certificates which the Treasury hands to

(9) A. H. HANSEN, *Monetary Theory and Fiscal Policy*, 1949.

the Federal Reserve Banks in exchange for gold (10).

The reserve liability applies separately to each of the twelve Federal Reserve Banks, some of which (Boston, St. Louis and Minneapolis) had until recently a gold cover which was well below the average. In June, 1951, at the end of the rapid credit expansion which took place in the United States just as in certain European countries following the outbreak of war in Korea, and which, together with the large gold losses, brought the average gold cover for the twelve banks down from 56 to 46 per cent, the three banks named came dangerously near 25 per cent minimum. The figures reached were 29.2 per cent at Boston, 28.5 per cent at St. Louis and 29.6 per cent at Minneapolis, and it was found necessary for the System to even out the position through its open market operations (11). Intervention of a similar nature had occurred in 1944 and 1945 before the cut in the cover requirements. The latest set of averaging transactions within the System appears to have been effected, on a wide base, during September 1953 through the transfer of Government securities, its aim being apparently to raise the reserve ratio of each Federal Reserve Bank above 40 per cent. Just before this took place, six out of the twelve banks

(10) Federal Reserve Act, Sec. 16: « Every Federal Reserve Bank shall maintain reserves in gold certificates of not less than 25 per centum against its deposits, and reserves in gold certificates of not less than 25 per centum against its Federal Reserve notes in actual circulation ».

(11) The Monthly Review of the Federal Reserve Bank of Boston for October, 1951 refers to such operations in the following terms:

« During 1951, the Boston bank's ratio has been approaching the legal minimum. Alterations in the Boston bank's participation in the System's Open Market Account have enabled it to maintain a working reserve ratio of approximately 30 per cent in this period. Maintenance of the reserve ratio by this means, however, does not alter the possibility that the tendency to lose gold is symptomatic of underlying difficulties deserving careful study ».

Net debtor or creditor balances arising on inter-district cheque clearings are settled through the Inter-district Settlement Fund, formerly called the Gold Settlement Fund. The method is to transfer gold certificates on deposit with the Fund from one bank to another. The Federal Reserve System can correct the debtor (or creditor) position of any Federal Reserve Bank by buying (or selling) Government securities in that bank's district.

One probable reason why Boston lost gold was that the Treasury's receipts exceeded its payments in New England. Another was that capital was flowing out to more recently developed industrial areas.

presented ratios ranging from 29.1 to 31.1 per cent.

This disparity between the positions of individual banks, and the fact that so far the gold reserve has never gone much below 40 per cent indicate that one should take ratios somewhat above the legal minimum when estimating the lowest level to which the System could allow the cover to fall if the present laws remain in force. It should be observed that, if the cover came down too near the legal minimum, the System might have difficulty in carrying out some of its other duties, such for instance as the obligation assumed, under the agreement of March, 1951 with the Treasury of ensuring « orderly conditions » in the market for Government securities. This means that it must when necessary buy such securities in order to prevent a « disorderly » fall in their price; and this entails adding to its own sight liabilities.

Table 6 assumes two cover ratios, namely 40 and 33.3 per cent, or $\frac{2}{5}$ and $\frac{1}{3}$. These ratios are applied direct to the notes, while in the case of bank deposits they are applied to the member banks' reserves, which we have taken as being equal to 15 per cent of bank deposits. Hence the gold cover of the deposits is 6 per cent according to the first hypothesis, and 5 per cent according to the second. Since, however, as was pointed out, the relative weight of notes and deposits respectively in the total money supply is as 1 to 5, the weighted ratio of gold reserves to the money supply is $\frac{7}{60}$ according to the first hypothesis, and $\frac{7}{72}$ according to the second.

If we round off these ratios to $\frac{1}{8}$ and $\frac{1}{10}$, and then apply them to the results of the four different hypotheses concerning the growth in the money supply, we obtain eight hypotheses concerning the additional gold reserves required. These are shown in Columns (a) to (h) of Table 6.

The eight hypotheses are not all equally valid, because some of the sets of assumptions from which they result are more probable than others. In particular it is unlikely that if the national product grows at the rapid rate of 5 per cent per annum the ratio of the money supply to the national product will be as high as 55 per cent; for this ratio in fact

tends to be high only when the national income is growing slowly. The most probable hypotheses are those in the centre columns (c) to (f).

and a 10 per cent gold cover against the money supply. Of the three remaining combinations of hypotheses only that represented by column (c) indicates an annual increment during the

(billions of dollars)

TABLE 6

| Supposed rate of growth of G.N.P. | 4 % | | | | 5 % | | | |
|--|------|--------|------|--------|---------|--------|------|--------|
| | 45 % | | 55 % | | 45 % | | 55 % | |
| | 10 % | 12.5 % | 10 % | 12.5 % | 10 % | 12.5 % | 10 % | 12.5 % |
| Ratio between « money supply subject to reserve » and G.N.P. | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1952 | | | | | | | | |
| G.N.P. | | | | | 346 | | | |
| Money supply | | | | | 150 | | | |
| Gold cover (end of year) | | | | | 23.3(1) | | | |
| 1962 | | | 512 | | | | 564 | |
| G.N.P. | | | | | | | | |
| Money supply | 230 | | 282 | | 254 | | 310 | |
| Gold cover | 23.1 | 28.8 | 28.2 | 35.2 | 25.4 | 31.7 | 31.0 | 38.8 |
| 1972 | | | 758 | | | | 918 | |
| G.N.P. | | | | | | | | |
| Money supply | 341 | | 417 | | 413 | | 505 | |
| Gold cover | 34.1 | 42.6 | 41.7 | 52.1 | 41.3 | 51.6 | 50.5 | 63.1 |

(1) 22.3 at end of August, 1953.

On the basis of the gold stock of \$ 23.3 billion existing at the end of 1952, the annual increment which will be needed under these hypotheses is as follows:

| Annual increment | 10 per cent cover | | 12.5 per cent cover | |
|--|-----------------------|--------|---------------------|--------|
| | Col. c | Col. e | Col. d | Col. f |
| | (millions of dollars) | | | |
| First 10 years (1953 to 1962) | 490 | 210 | 1,190 | 840 |
| Second 10 years (1963 to 1972) | 1,350 | 1,590 | 1,690 | 1,990 |
| For 20 years (1953 to 1972) | 920 | 900 | 1,440 | 1,415 |

The only combination of hypotheses producing an annual increment which could be achieved without difficulty during the first ten years is that in Column (e): that is to say, a gross national product growing at 5 per cent per annum, a 45 per cent ratio between the money supply and the gross national product,

first ten years which is compatible with the present output of gold, but it would mean that the addition to the gold reserves of the rest of the world would have to be small and that the proportion of the gold output used for monetary purposes would have to be greater than it has been during recent years. If the yearly increments are referred to the latest available figure for the gold stock (22.3 billion), somewhat higher figures obviously result for the first decade.

The validity of these conclusions can be judged from the figures in Table 7 (12).

The remedies which may be foreseen as most likely to be adopted are, first, a further lowering of the commercial banks' reserve requirements; secondly, a reduction in the gold

(12) The figures for production and the figure for the growth in gold reserves in 1938 are taken from the Statistical Bulletin of the International Monetary Fund. The remaining figures for the growth in gold reserves are taken from the Federal Reserve Bulletin. They cover the reserves of Central Banks, of Governments, of stabilisation funds and of international institutions. All the figures exclude the U.S.S.R.

cover requirement; and, finally, an increase in the price of gold.

(Millions of dollars)

TABLE 7

| Year | Gold Production | Addition to Official Gold Reserves |
|------------------------------|-----------------|------------------------------------|
| 1937 | 1,934 | |
| 1938 | 1,117 | 570 |
| 1939 | 1,189 | |
| 1946 | 752 | 350 |
| 1947 | 767 | 430 |
| 1948 | 785 | 380 |
| 1949 | 817 | 480 |
| 1950 | 845 | 410 |
| 1951 | 827 | 140 |
| 1952 | 855 | 310 |
| 1953 (Jan. - June) | .. | 120 |

The discussions about the price of gold which have been going on for some time now have mostly dealt with aspects of the problem which are external to the American economy. One such aspect is the contribution which the raising of the price would make towards solving the problem of international liquidity: that is to say, the problem of equating the volume of generally acceptable means of settlement to the size of temporary disequilibria in balances of payments. Another is the effect which would be produced on the earnings of the mines, and thus (through the combined effect of the higher gold price and the greater quantity of gold mined), on the balances of payments of gold producing countries, which would like to see the relationship between the prices of gold and of goods brought back closer to what it was in 1934. Still another aspect discussed are the more general effects which improving the sterling area's balance of payments would have on the whole structure of international payments. And, finally, attention has been drawn to the limitations which attach to raising the price of gold, as a means of economic aid, by comparison with other more selective means.

Less attention has been paid to those aspects of the question which are internal to the American economy. One cannot wonder that in the country which is most amply provided with gold reserves less thought has been given to the possible long-term deflationary

effects of the present setup, than to the impulse which an upward revaluation of those reserves, and a rise in the output of gold, would give to inflationary forces. In a recent paper, Miroslav A. Kriz (13) sums up as follows the case for maintaining the present price of gold:

«To argue that a rise in the commodity price level should be followed by an increase in the price of gold is a version of the economics of perpetual inflation. In the first place, the increase in the value of gold output, and gradually also in its volume, that would follow a gold price rise would increase the incomes in gold producing countries, while there would be no parallel increase in the volume of consumer and investment goods; part of this added purchasing power would tend to spread itself into foreign countries through foreign trade and thereby increase the competition for goods. Secondly, increased sales of gold to monetary authorities by the producers would tend to expand the commercial banks' reserves and thus (unless offset, perhaps with some difficulty) increase their lending power. Thirdly, in the gold importing countries the reserve base of the banking system would also be enlarged. Finally, the psychological effect of a gold price rise would be decidedly inflationary».

The first and fourth of these points both relate to considerations somewhat remote from those of monetary mechanics with which the present article seeks to deal. We will take up the two intermediate ones.

At the outset the increase in the value of the newly produced gold flowing into monetary reserves in the United States and other countries would be mainly the reflection of the change in the price per ounce. Not until later would the growth in the quantity produced also affect the stream. Mr. Kriz calculates that, if the price were raised to \$ 44 per ounce, this might at the most cause production to rise from its 1951 level of 22 million ounces to the peak level of 32 million ounces which it reached in 1940. The value of that production would thus increase from about \$ 770 million to about \$ 1,400 million.

(13) MIROSLAV A. KRIZ, *The Price of Gold*. Princeton University, Essays in International Finance, No. 15, 1952.

In the United Kingdom the Bank of England could easily neutralise the expansive effect of the gold inflow on liquidity and lending power by selling Treasury Bills to the other banks. On the continent of Europe, the Central Banks are generally in a position to absorb excess liquidity through open market operations, changes in reserve requirements for the commercial banks or changes in rediscount policies. Where inflationary pressures persist, they may be attributed to causes other than the condition of the balance of payments: for instance to disorder in the public finances, or to ambitious capital investment programmes. The condition of the balance of payments should indeed be ranked among the effects rather than the causes of internal inflation.

In the United States, as elsewhere, the Central Banks can mop up any surplus liquidity by selling Government securities and by cutting down rediscounts. The figure of \$ 1,600 million which rediscounts at the Federal Reserve Banks reached at the end of 1952 is without precedent, and it means the abandonment, presumably only temporary, of the traditional principle that the Federal Reserve System should not permanently supply any bank with the resources needed for covering the minimum reserve requirements (14). If the credit thus extended were called in, the effect would be enough to neutralise the expansion produced by an inflow of about half a billion dollars of gold each year for three years.

The possible inflow of gold would become greater after the first few years, as output rose under the incentive of the higher price. At the same time the amount of the additional reserves required for covering the Federal Reserve Banks' sight liabilities, under all the hypotheses made in this article, would approach levels near to or above that of the probable amount of gold coming in.

(14) See in this connection the memorandum presented by the Federal Reserve Board to the Patman Committee (published in *Monetary Policy and the Management of the Public Debt*, Part I, p. 207, U.S. Government Printing Office, 1952). This principle has also been applied in Italy since the introduction of minimum reserve requirements. It is interesting to observe that, in so far as the expansion in the means of payment has no counterpart in the accumulation of gold or foreign exchange, the principle leads to expansion of Central Bank investments in Government securities. This causes Hansen to say (*op. cit.*) that the public debt is bound to expand continuously.

It remains to consider what effects in the direction of inflation might be produced within the American economy by the initial upward valuation of the gold stock.

If the price of gold were raised from 35 to p dollars per ounce, then the quantity of gold backing the gold certificates issued to the Federal Reserve Banks would be reduced to $35/p$ of the present quantity. The remainder equal to $(p-35)/p$ would be released in favour of the Treasury (15); and the latter could then issue and hand to the Federal Reserve Banks an equivalent additional amount of gold certificates which would be credited to the Treasury's accounts with those Banks.

Under the assumption made above that the price rises to \$ 44 per ounce, the revaluation profit on the present reserves of some 22 billion would be about \$ 5.7 billion. By being spent by the Treasury this sum might be converted into an equal amount of additional reserves held by the commercial banks at the Federal Reserve. It might thus support an expansion of deposits at, and lending by the commercial banks of somewhat over six times that amount, or say \$ 38 billion; this would increase the member banks' present deposits, of between 125 and 130 billion dollars, by some 30 per cent. More probably, however, the expansion would be distributed between deposits and the note circulation so as to keep the proportions between these two elements of the money supply more or less constant. Each element would then increase by about 13 per cent (16).

(15) Gold Reserve Act of 1934, Sec. 7: «In the event that the weight of the gold dollar shall at any time be reduced, the resulting increase in value of the gold held by the United States (including the gold held as security for gold certificates and as a reserve for any United States notes and for Treasury notes of 1890) shall be covered into the Treasury as a miscellaneous receipt».

(16) Let c represent the circulation of Federal Reserve notes (25 billion), d the deposits at member banks (125 billion), and r the average reserve ratio required for the latter (0.15). The changes resulting from an expansion of Δg (5.7 billion) in the gold reserve will then approximately satisfy the following equations:

$$\begin{cases} \Delta c + r\Delta d = \Delta g \\ \frac{\Delta c}{\Delta d} = \frac{c}{d} \end{cases}$$

Introducing the relevant numerical values, we obtain the result that the deposits will expand by 16.3 billion and the note circulation by 3.26 billion.

If therefore the revaluation of gold is not to cause inflation, and if it be assumed that the national income will rise by 4 to 5 per cent per annum, the Treasury must spread the expenditure of the revaluation profit over not less than three years. If it were to spend the profit faster than this, the Federal Reserve would have to undertake offsetting operations (by selling securities on the market).

Since revaluation followed by the issue of additional certificates would increase the reserves and the sight liabilities of the Federal Reserve Banks by equal amounts, their gold cover ratio would rise. This is the enlargement of the reserve base of the banking system to which Kriz refers in his third point. But we have seen that up till the war the Federal Reserve Banks kept varying cover ratios, which were always very high; and there seems no reason why a high cover ratio should, in the future, any more than in the past, be the cause of an easy credit policy on the part of institutions whose primary task is to defend the currency.

It is true that, once the war had broken out, the high level of the gold reserves did enable the Federal Reserve Banks to undertake large purchases of Government securities without coming too close (at least until towards the end of 1944) to the legal minimum cover; that is to say it was a factor favouring inflation. If the System had entered the war with a less ample gold cover (as would happen in the event of a fresh conflict), it would sooner or later have had to face the choice between reducing (or abandoning) the cover requirement and following a stricter monetary policy. One only has to read the arguments with which the Federal Reserve Board in February, 1945 supported in Congress the proposal that the gold cover required for sight liabilities of the Federal Reserve Banks should be cut to 25 per cent, to realise that the first of these two courses would have been adopted without hesitation (17).

(17) The Federal Reserve Board document points out that the fall in the gold cover for the sight liabilities which took place after 1941 was due to the decrease in the gold reserve coupled with the increase in the sight liabilities. It goes on to remark:

« Reduction of reserves has reflected the fact that most of this country's exports have been on Lend-Lease, while our imports have been on a cash basis. Countries that have sold commodities to the United States have not been able to buy

In the case of the major European countries, which have given up all requirements regarding gold cover for their currencies, the third point made by Kriz does not apply.

Looking ahead over a moderately long period then, it seems clear that even in the American economy it is impossible for all of the following three conditions to be satisfied at the same time:

(1) A sustained growth of the national income.

goods here, on account of war restrictions, and have either withdrawn or earmarked gold against the time when goods will once more be available for sale.

Growth of Federal Reserve note circulation has been a part of the general expansion of currency which has accompanied war activity in every country in the world. Expansion of both notes and deposits has reflected growth of Government war expenditures, enlargement of national money income, and advancement of pay rolls and trade at higher prices. So long as the Federal Reserve Banks continue to do their part, as they surely must, to assist the Treasury in Government financing and in maintaining stable conditions in the market for United States Government securities, these banks must not be restricted by an arbitrary reserve ratio ».

The further arguments of the Board are directed toward showing that the reserve ratio was not so much arbitrary at the outset as excessive in view of the functions which remained for the reserve to fulfil under the changed conditions:

« A direct reduction of the required ratio... would be entirely consistent with the changes in conditions which have occurred since the ratio was first established by the Congress. The original purposes of the ratio were (1) to assure adequate resources for the Reserve Banks to meet demands for gold or lawful money by depositors and note holders, (2) to limit the expansion of Federal Reserve Bank credit, and (3) to assure the public that there was at least 40 per cent in gold back of the Federal Reserve notes which were then being introduced for the first time.

The first purpose is no longer compelling since gold redemption is now not permitted for domestic use, and gold can be exported only under license. While the country's aggregate gold reserves are ample to meet any conceivable foreign demand, a reserve ratio high enough to meet possible demands for both domestic and foreign use is no longer appropriate under present conditions. The second purpose — limitation of Federal Reserve Bank expansion — is not relevant at a time when expansion by the Reserve Banks is essential to the needs of war finance. Thirdly, confidence in Federal Reserve notes is well established, and whether the amount of gold back of the notes is 40 per cent or 25 per cent makes no practical difference.

War conditions have caused all belligerents to reduce or abolish central bank reserve requirements. Mechanical limitations on the ability of a central banking organization to extend credit must inevitably give way in time of war to the paramount obligation to support the war effort.

A reduction to 25 per cent is proposed because it would be sufficient for all foreseeable contingencies. It would enable the Reserve Banks to meet such additional demands for currency by the public and for reserve balances by member banks as are likely to occur. The currency supply and the bank deposit structure could nearly double before the legal minimum would be reached ».

(2) Maintenance of the gold cover at a fairly high proportion, such as one-third, of the Central Bank sight liabilities.

(3) Maintenance of the present price of gold.

The limit set by the second of these conditions could be removed by further reducing the reserve requirements for the commercial banks. The maintenance of prices at a level not lower than the present one is not stated as a separate condition, because it is implied in the first.

The fact that the three conditions cannot all be fulfilled together will become immediately clear if the other countries, with a view to reintroducing currency convertibility, take the course of augmenting their own gold reserves by drawing gold from the United States, or even by merely absorbing a large part of the gold newly mined. The advice which the Genoa Conference gave thirty years ago, to build up reserves in the form of convertible foreign exchange rather than of gold, seems quite apposite now. It might also be well to do already now what may have to be done during the next few years, and that is to repeat the warning which the Gold Delegation of the League of Nations Financial Committee gave in 1930 in connection with the need to safeguard international monetary equilibrium:

« Nous désirons signaler une fois de plus les conséquences que pourrait provoquer toute opération de grande envergure ayant pour objet

de convertir en or les réserves actuellement constituées en devises étrangères, et nous croyons devoir prier instamment tous les pays qui ont adopté le système de l'étalon de change-or de procéder dans ce domaine avec la plus grande circonspection ».

It appears equally desirable also to develop those multilateral clearing organisations in which the parties grant each other credit, in order to cover temporary disequilibria in their balances of payments.

The countries of Europe are too many, and the demands of economic development and of defence are too great for it to be possible at the moment to devote to the accumulation of gold and convertible foreign exchange reserves the effort which would be necessary if those reserves were to be adequate to the needs of a system of full gold convertibility of the old type. This difficulty is one of the many which reflect the decay of the old national states, over-burdened as they are with tasks, and lacking the strength to maintain sound currency conditions. The return to convertibility would be made less difficult by some sort of European Federation, which, by transforming the trade between the various European countries along with their currency areas from foreign into domestic trade, would partly solve the problem of international liquidity, as well as other problems which are yet more serious. Even then, however, it would still have to be a question of convertibility into dollars rather than into gold.

STATISTICAL APPENDIX

ITALIAN BUDGET SUMMARY
(milliards of lire)

Table A

| Fiscal year beginning 1st July | Revenue | | | Expenditure | | | Deficit | | | Cash |
|--------------------------------|----------|---------------------|---------------|-------------|---------------------|--------------|-----------|---------------------|--------|-------|
| | Assessed | | Collected (a) | Obligated | | Paid out (a) | Obligated | | | |
| | Current | Movement of capital | | Current | Movement of capital | | Current | Movement of capital | Total | |
| 1938-39 | 28 | 3 | ... | 40 | 2.8 | ... | - 12 | + 0.2 | - 11.8 | .. |
| 1946-47 | 352 | 335 | 668 | 932 | 303 | 874 | - 580 | + 31 | - 549 | - 206 |
| 1947-48 | 828 | 200 | 822 | 1,547 | 262 | 1,327 | - 719 | - 66 | - 785 | - 205 |
| 1948-49 | 1,015 | 45 | 1,020 | 1,519 | 98 | 1,440 | - 504 | - 53 | - 557 | - 402 |
| 1949-50 | 1,449 | 344 | 1,603 | 1,771 | 213 | 1,687 | - 322 | + 131 | - 191 | - 84 |
| 1950-51 | 1,676 | 247 | 1,617 | 1,853 | 341 | 1,776 | - 177 | - 94 | - 271 | - 159 |
| 1951-52 | 1,720 | 337 | 2,088 | 2,206 | 274 | 2,276 | - 486 | - 63 | - 423 | - 188 |
| 1952-53 | 1,872 | 311 | 2,307 | 2,340 | 137 | 2,541 | - 468 | + 174 | - 294 | - 234 |
| 1953-54 (b) | 1,703 | 26.6 | — | 2,164 | 77.8 | — | - 461 | - 51.2 | - 512 | — |

(a) Current revenue and movement of capital; on year account and arrears.

(b) Estimates at September 30, 1953.

Source: Conto riassuntivo del Tesoro.

ITALIAN BUDGET SUMMARY - FINANCING OF CASH DEFICIT
(millions of lire)

Table B

| | 1948-49 | 1949-50 | 1950-51 | 1951-52 | 1952-53 |
|--|------------------|------------------|------------------|------------------|------------------|
| Assessments and Obligations (a) - Deficit . . . | - 556,705 | - 191,768 | - 270,707 | - 423,000 | - 294,000 |
| Receipts and Payments (b) - Cash deficit . . . | - 419,964 | - 83,619 | - 159,103 | - 188,494 | - 234,400 |
| Financing of cash deficit: | | | | | |
| Treasury Bills | + 262,564 | - 24,530 | + 98,024 | + 105,396 | - 11,800 |
| Advances of the Bank of Italy | - 2,884 | + 19,077 | - 19,077 | — | - 21,100 |
| Interest bearing current accounts | | | | | |
| Cassa DD.PP. and insurance instit. (c) | + 223,443 | + 159,514 | + 142,216 | + 30,088 | + 150,500 |
| Banking institutions | - 39,449 | - 10,176 | - 751 | - 13,591 | + 15,700 |
| Floating debt - Total | + 443,674 | + 143,885 | + 220,914 | + 121,893 | + 143,300 |
| Other Treasury debits and credits (d) | - 67,773 | + 40,282 | - 8,381 | + 139,188 | - 12,100 |
| Changes in cash position | + 44,063 | - 100,548 | - 53,430 | - 72,587 | + 103,200 |
| GRAND TOTAL | + 419,964 | + 83,619 | + 159,103 | + 188,494 | + 234,400 |

(a) Current revenue and expenditure and movements of capital;

(b) Receipts and payments on year account and arrears; current revenue and expenditure and movements of capital;

(c) For more than 90%, a/c.s. with « Cassa Depositi e Prestiti » (Cassa DD.PP.) which collects the deposits of the Postal Savings Banks;

(d) Debits and credits with government's agencies and other public bodies;

Source: Conto riassuntivo del Tesoro.

ITALIAN DOMESTIC PUBLIC DEBT
(milliards of lire - Index Numbers, 1938=100)

Table C

| End of period | Consolidated debt | | Redeemable debt | | Floating debt | | | | | Total of domestic public debt | | |
|------------------------|-------------------|-------|-----------------|-------|----------------|------------------------------------|--------------------------------|--------|-------|-------------------------------|---------|-------|
| | A-mount | I. N. | A-mount | I. N. | Treasury bills | Interest bearing current ac-counts | Ad-vances by the Bank of Italy | Total | | Treasury notes | Total | |
| | | | | | | | | Amount | I. N. | | Amount | I. N. |
| 1938 - June | 53 | 100 | 49 | 100 | 9 | 20 | 1 | 30 | 100 | 1.5 | 133.5 | 100 |
| 1949 - June | 53 | 100 | 392 | 800 | 744 | 479 | 470 | 1,693 | 5,643 | 8.4 | 2,146.4 | 1,608 |
| 1950 - June | 53 | 100 | 586 | 1,196 | 719 | 628 | 490 | 1,837 | 6,123 | 9.0 | 2,486.0 | 1,862 |
| 1951 - June | 53 | 100 | 691 | 1,410 | 817 | 770 | 471 | 2,058 | 6,860 | 9.0 | 2,811.0 | 2,106 |
| 1952 - June | 53 | 100 | 829 | 1,681 | 920 | 822 | 471 | 2,213 | 7,376 | 15.0 | 3,110.0 | 2,329 |
| 1953 - March | 53 | 100 | 1,025 | 2,091 | 896 | 922 | 453 | 2,271 | 7,570 | 34.4 | 3,383.4 | 2,534 |
| April | 53 | 100 | 1,025 | 2,091 | 892 | 908 | 452 | 2,252 | 7,506 | 35.7 | 3,366.2 | 2,521 |
| May | 53 | 100 | 1,025 | 2,091 | 914 | 937 | 450 | 2,301 | 7,670 | 37.2 | 3,415.7 | 2,558 |
| June | 53 | 100 | 1,025 | 2,091 | 908 | 998 | 449 | 2,355 | 7,850 | 38.2 | 3,471.5 | 2,600 |
| July | 53 | 100 | 1,025 | 2,091 | 933 | 1,005 | 448 | 2,386 | 7,953 | 40.0 | 3,504.1 | 2,624 |
| August | 53 | 100 | 1,025 | 2,091 | 932 | 1,024 | 447 | 2,403 | 8,010 | 41.2 | 3,522.0 | 2,638 |
| September | 53 | 100 | 1,025 | 2,091 | 941 | 1,038 | 447 | 2,426 | 8,086 | 42.1 | 3,546.1 | 2,656 |

Source: Conto riassuntivo del Tesoro.

DEPOSITS, CURRENT ACCOUNTS AND ASSETS OF ITALIAN BANKS (a)
(millions of lire)

Table D

| Items | 31.12.50 | 31.12.51 | 30.6.52 | 31.12.52 | 31.3.53 | 30.6.53 | 30.9.53 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Amount outstanding | | | | | | | |
| Deposits and current accounts | 2,234,906 | 2,686,037 | 2,893,738 | 3,335,350 | 3,391,847 | 3,484,279 | 3,685,532 |
| Cash and sums available at sight | 221,621 | 294,938 | 219,283 | 345,027 | 268,243 | 277,966 | 278,146 |
| Fixed deposits with the Treasury and other Institutions | 280,417 | 342,529 | 399,324 | 423,403 | 423,486 | 432,139 | 495,104 |
| Government Securities (b) | 516,469 | 610,698 | 694,284 | 674,086 | 718,526 | 735,383 | 770,219 |
| Credits to clients (c) | 1,801,656 | 2,135,381 | 2,230,372 | 2,649,294 | 2,696,513 | 2,793,070 | 2,945,479 |
| Index Numbers: 31-12-1948=100 | | | | | | | |
| Deposits and current accounts | 147.0 | 176.8 | 191.6 | 219.3 | 223.1 | 229.1 | 242.4 |
| Cash and sums available at sight | 131.0 | 174.5 | 129.7 | 204.1 | 158.6 | 164.4 | 164.5 |
| Fixed deposits with the Treasury and other Institutions | 157.7 | 192.7 | 224.6 | 238.2 | 238.2 | 243.1 | 278.5 |
| Government Securities (b) | 129.9 | 153.6 | 174.6 | 169.7 | 180.7 | 185.- | 193.7 |
| Credits to clients (c) | 157.2 | 186.3 | 194.6 | 231.1 | 235.3 | 243.7 | 257.0 |
| % of deposits and current a/cs | | | | | | | |
| Cash and sums available at sight | 9.0 | 10.9 | 7.6 | 10.3 | 7.9 | 7.9 | 7.5 |
| Fixed deposits with the Treasury and other Institutions | 12.5 | 12.7 | 13.8 | 12.6 | 12.4 | 12.4 | 13.4 |
| Government Securities (b) | 23.1 | 22.7 | 23.9 | 20.2 | 21.1 | 21.1 | 20.8 |
| Credits to clients (c) | 80.6 | 79.4 | 77.0 | 79.4 | 79.4 | 80.1 | 79.9 |

(a) The data refer to 365 banks (commercial and savings banks) which hold about 99% of the total deposits collected by all Italian banks.

(b) Treasury bills and other Government securities. Nominal value.

(c) Includes: bills on hand, rediscount at the Bank of Italy, contangoes, advances, current accounts, credits abroad, loans recoverable on salaries, credits on note of hand, mortgage loans, current accounts with sections for special credits, non-Government securities, participations.

Source: Bollettino of the Bank of Italy.

DEPOSITS AND CURRENT ACCOUNTS OF ITALIAN BANKS (a)

Table E

| End of period | Time and Demand Deposits | | | Current accounts (b) | | | % of 4 to 1 | Total | | |
|---------------------------|--------------------------|-------------------|--------------|----------------------|-------------------|--------------|-------------|---------------------|-------------------|--------------|
| | Amounts outstanding | Quarterly changes | Index Number | Amounts outstanding | Quarterly changes | Index Number | | Amounts outstanding | Quarterly changes | Index Number |
| | | | | | | | | | | |
| 1947 - December | 528,516 | — | 100 | 485,373 | — | 100 | 91.8 | 1,013,889 | — | 100 |
| 1948 - December | 805,497 | + 65,005 | 152.4 | 714,781 | + 50,161 | 147.4 | 88.7 | 1,520,278 | + 115,166 | 149.7 |
| 1949 - December | 1,015,937 | + 66,717 | 192.2 | 932,787 | + 76,226 | 192.1 | 91.8 | 1,948,724 | + 142,943 | 192.2 |
| 1950 - December | 1,172,391 | + 59,892 | 221.8 | 1,062,515 | + 58,583 | 218.9 | 90.6 | 2,234,906 | + 118,475 | 220.4 |
| 1951 - March | 1,179,784 | + 7,393 | 223.2 | 1,091,270 | + 28,755 | 224.8 | 92.4 | 2,271,054 | + 36,148 | 223.9 |
| June | 1,187,815 | + 8,031 | 224.7 | 1,090,487 | + 783 | 224.6 | 91.8 | 2,278,302 | + 7,248 | 224.7 |
| September | 1,256,753 | + 68,938 | 237.7 | 1,179,351 | + 88,864 | 242.9 | 93.8 | 2,436,104 | + 157,802 | 240.2 |
| December | 1,364,093 | + 107,340 | 257.7 | 1,323,944 | + 144,593 | 271.8 | 93.8 | 2,688,037 | + 251,933 | 264.4 |
| 1952 - March | 1,419,966 | + 55,873 | 268.7 | 1,355,400 | + 31,456 | 279.2 | 95.5 | 2,775,366 | + 87,329 | 273.7 |
| June | 1,454,922 | + 34,956 | 275.3 | 1,434,770 | + 39,370 | 296.0 | 98.6 | 2,889,692 | + 114,326 | 285.4 |
| September | 1,567,234 | + 112,312 | 296.5 | 1,510,075 | + 75,305 | 331.1 | 96.3 | 3,077,309 | + 187,617 | 303.5 |
| December | 1,688,668 | + 121,434 | 319.5 | 1,646,682 | + 136,607 | 339.2 | 97.5 | 3,335,350 | + 258,041 | 328.9 |
| 1953 - March | 1,730,272 | + 41,604 | 327.3 | 1,661,575 | + 14,893 | 342.3 | 96.- | 3,391,847 | + 56,497 | 334.5 |
| June | 1,784,718 | + 54,445 | 337.6 | 1,699,562 | + 37,984 | 350.1 | 95.2 | 3,484,279 | + 92,432 | 343.6 |
| September | 1,885,007 | + 100,289 | 356.6 | 1,800,525 | + 100,963 | 370.9 | 95.5 | 3,685,532 | + 201,253 | 363.5 |

(a) The data refer to 365 banks (commercial and saving banks) which hold about 99% of the total deposits collected by all Italian banks.

(b) Inter-bank current accounts are excluded.

Source: Bollettino of the Bank of Italy.

NOTE CIRCULATION, PRICES, WAGES AND SHARE QUOTATIONS IN ITALY
(Index Numbers, 1938=100)

Table F

| Year or month | Note Circulation (a) | | Wholesale prices (c) | | Cost of Living (c) | Wage rates in industry (c) | Share quotations (b) | Fine gold | |
|-----------------|--------------------------------|-------|----------------------|------------|--------------------|----------------------------|----------------------|------------------------------|-------|
| | Amount (b) (milliards of lire) | Index | All com. modities | Foodstuffs | | | | Price of one gram (lire) (d) | Index |
| 1950 - December | 1,176.1 | 5,228 | 5,406 | 5,567 | 5,009 | 5,962 | 1,589.1 | 919 | 3,535 |
| 1951 - December | 1,304.2 | 5,796 | 5,454 | 5,355 | 5,416 | 6,685 | 1,714.9 | 885 | 3,403 |
| 1952 - March | 1,216.3 | 5,408 | 5,323 | 5,149 | 5,475 | 6,732 | 1,930.4 | 859 | 3,304 |
| June | 1,224.5 | 5,422 | 5,133 | 5,491 | 5,559 | 7,055 | 1,872.3 | 795 | 3,058 |
| September | 1,307.3 | 5,819 | 5,265 | 5,511 | 5,615 | 7,380 | 2,036.9 | 794 | 3,054 |
| December | 1,411.1 | 6,271 | 5,288 | 5,624 | 5,612 | 7,426 | 2,316.6 | 770 | 2,961 |
| 1953 - March | 1,310.3 | 5,823 | 5,264 | 5,656 | 5,613 | 7,525 | 2,344.8 | 765 | 2,942 |
| June | 1,288.6 | 5,727 | 5,259 | 5,704 | 5,718 | 7,525 | 2,244.2 | 755 | 2,903 |
| July | 1,287.4 | 5,721 | 5,258 | 5,722 | 5,633 | 7,525 | 2,310.4 | 748 | 2,876 |
| August | 1,336.3 | 5,939 | 5,270 | 5,774 | 5,617 | 7,573 | 2,410.4 | 747 | 2,873 |
| September | 1,355.9 | 6,026 | 5,249 | 5,703 | 5,642 | 7,573 | 2,432.9 | 745 | 2,865 |

(a) End of year or month. Includes: Bank of Italy notes and Treasury notes; (b) *Bollettino* of the Bank of Italy; (c) *Bollettino Mensile di Statistica* issued by the Central Institute of Statistics; (d) Business Statistics Centre of Florence.

PRICES AND YIELDS OF ITALIAN SECURITIES BY MAIN CATEGORIES
(annual or monthly averages)

Table G

| Year or month | Government Securities | | | | | | | | Share Securities | |
|---------------|------------------------------|----------------------------|------------------------------|----------------------------|------------------------------|----------------------------|------------------------------|----------------------------|------------------------------|----------------------------|
| | Bonds | | | | Treasury Bonds | | Average | | | |
| | Consolidated | | Redeemable | | Price (index number '38=100) | Yield (per cent per annum) | Price (index number '38=100) | Yield (per cent per annum) | Price (index number '38=100) | Yield (per cent per annum) |
| | Price (index number '38=100) | Yield (per cent per annum) | Price (index number '38=100) | Yield (per cent per annum) | | | | | | |
| 1950 - a. av. | 105.4 | 5.13 | 93.4 | 6.06 | 93.6 | 5.68 | 93.6 | 5.83 | 1,528.2 | 5.44 |
| 1951 - » » | 101.9 | 5.30 | 88.2 | 6.42 | 89.1 | 6.06 | 89.1 | 6.12 | 1,676.2 | 6.56 |
| 1952 - » » | 101.5 | 5.32 | 87.3 | 6.48 | 87.1 | 6.07 | 88.6 | 6.15 | 1,618.3 | 7.12 |
| 1952 - March | 99.6 | 5.42 | 87.3 | 6.48 | 86.4 | 6.12 | 88.2 | 6.18 | 1,930.4 | 6.13 |
| June | 100.9 | 5.35 | 90.6 | 6.25 | 92.0 | 5.75 | 93.3 | 5.84 | 1,872.3 | 6.57 |
| September | 102.3 | 5.28 | 94.5 | 5.99 | 93.1 | 5.68 | 95.1 | 5.73 | 2,036.9 | 6.18 |
| December | 102.5 | 5.27 | 91.0 | 6.22 | 87.9 | 6.02 | 90.4 | 6.03 | 2,316.6 | 5.54 |
| 1953 - March | 100.4 | 5.38 | 88.9 | 6.37 | 86.3 | 6.13 | 88.8 | 6.14 | 2,344.8 | 5.31 |
| June | 99.6 | 5.42 | 87.5 | 6.47 | 86.0 | 6.15 | 88.3 | 6.17 | 2,244.2 | 6.37 |
| July | 99.8 | 5.41 | 87.9 | 6.44 | 86.6 | 6.11 | 88.8 | 6.14 | 2,310.4 | 6.30 |
| August | 99.4 | 5.43 | 87.8 | 6.45 | 86.4 | 6.12 | 88.6 | 6.15 | 2,410.4 | 6.03 |
| September | 98.9 | 5.46 | 88.2 | 6.42 | 86.6 | 6.11 | 88.8 | 6.14 | 2,432.9 | 5.98 |

Source: *Bollettino* of the Bank of Italy.

WHOLESALE PRICES BY GROUPS OF COMMODITIES
(Index Numbers, 1938=100)

Table H

| Year or month | All Com. modities | Foodstuffs | | Textiles | Hides, Skins and Footwear | Raw materials, metal and engineering products | Fuels and lubricants | Chemical raw materials and products | Lumber | Paper goods | Bricks, Lime and Cement | Glass |
|---------------|-------------------|------------|--------|----------|---------------------------|---|----------------------|-------------------------------------|--------|-------------|-------------------------|-------|
| | | Vegetable | Animal | | | | | | | | | |
| 1950 - a. av. | 4,905 | 4,746 | 6,401 | 6,015 | 4,191 | 5,228 | 3,784 | 5,302 | 5,677 | 4,778 | 6,106 | 4,928 |
| 1951 - » » | 5,581 | 4,821 | 7,289 | 7,621 | 5,213 | 6,689 | 4,666 | 6,008 | 7,250 | 8,318 | 6,603 | 4,878 |
| 1952 - » » | 5,270 | 4,869 | 6,696 | 6,343 | 4,245 | 6,767 | 4,440 | 5,717 | 8,344 | 6,246 | 7,216 | 4,707 |
| 1952 - March | 5,323 | 4,709 | 6,969 | 6,604 | 4,406 | 7,060 | 4,597 | 5,866 | 8,599 | 7,340 | 7,150 | 4,707 |
| June | 5,133 | 4,668 | 6,295 | 6,241 | 3,945 | 6,777 | 4,386 | 5,718 | 8,419 | 6,168 | 7,220 | 4,707 |
| Sept. | 5,265 | 4,987 | 6,675 | 6,194 | 4,292 | 6,686 | 4,343 | 5,588 | 8,133 | 5,362 | 7,357 | 4,707 |
| Dec. | 5,288 | 5,141 | 6,757 | 6,014 | 4,230 | 6,396 | 4,310 | 5,530 | 8,372 | 5,320 | 7,240 | 4,707 |
| 1953 - March | 5,264 | 5,283 | 6,502 | 6,030 | 4,243 | 5,959 | 4,154 | 5,411 | 8,404 | 5,302 | 7,231 | 4,644 |
| June | 5,259 | 5,498 | 6,113 | 6,039 | 4,036 | 5,642 | 4,006 | 5,286 | 8,387 | 5,214 | 7,163 | 4,644 |
| July | 5,258 | 5,502 | 6,201 | 5,790 | 3,922 | 5,629 | 4,013 | 5,143 | 8,376 | 5,142 | 7,202 | 4,644 |
| August | 5,270 | 5,457 | 6,483 | 5,773 | 3,917 | 5,828 | 4,017 | 5,122 | 8,376 | 5,152 | 7,202 | 4,404 |
| Sept. | 5,249 | 5,313 | 6,563 | 5,768 | 3,926 | 5,642 | 4,019 | 5,123 | 8,376 | 5,222 | 7,202 | 4,404 |

Source: *Bollettino Mensile di Statistica*.

NATIONAL INDEX OF LIVING COST
(1938=100)

Table I

| Year or month | All Items | Foodstuffs | Clothing | Heating and lighting | Housing | Miscellaneous |
|---------------|-----------|------------|----------|----------------------|---------|---------------|
| 1950 - a. av. | 4,849 | 5,877 | 5,742 | 3,480 | 730 | 4,610 |
| 1951 - » » | 5,320 | 6,279 | 6,975 | 3,746 | 1,232 | 5,248 |
| 1952 - » » | 5,546 | 6,541 | 6,415 | 4,031 | 1,565 | 5,501 |
| 1952 - March | 5,475 | 6,419 | 6,596 | 3,997 | 1,539 | 5,532 |
| June | 5,559 | 6,566 | 6,410 | 3,991 | 1,576 | 5,436 |
| September | 5,615 | 6,651 | 6,261 | 4,077 | 1,618 | 5,491 |
| December | 5,612 | 6,633 | 5,218 | 4,100 | 1,656 | 5,516 |
| 1953 - March | 5,613 | 6,619 | 6,203 | 4,105 | 1,705 | 5,546 |
| June | 5,718 | 6,788 | 6,185 | 4,077 | 1,713 | 5,549 |
| July | 5,633 | 6,657 | 6,199 | 4,074 | 1,713 | 5,534 |
| August | 5,617 | 6,628 | 6,207 | 4,082 | 1,730 | 5,527 |
| September | 5,642 | 6,663 | 6,247 | 4,086 | 1,730 | 5,539 |

Source: *Bollettino Mensile di Statistica*.

WAGES AND SALARIES IN ITALY
(gross retributions - inclusive of family allowances)
(Index Numbers, 1938=100)

Table L

| Categories | 1952 a. av. | 1953 | | | | | |
|--|----------------|-------|-------|-------|-------|--------|-----------|
| | | April | May | June | July | August | September |
| Industry: | | | | | | | |
| Specialized workers | 6,199 | 6,542 | 6,542 | 6,542 | 6,542 | 6,583 | 6,583 |
| Skilled workers | 6,846 | 7,237 | 7,237 | 7,237 | 7,237 | 7,282 | 7,282 |
| Ordinary workers and semi-skilled labourers | 7,268 | 7,718 | 7,718 | 7,718 | 7,718 | 7,773 | 7,773 |
| Labourers | 7,836 | 8,371 | 8,371 | 8,371 | 8,371 | 8,422 | 8,422 |
| General index of Industry | 7,090 | 7,525 | 7,525 | 7,525 | 7,525 | 7,573 | 7,573 |
| Agriculture | 7,464 | 7,999 | 7,999 | 7,999 | 7,999 | 8,041 | 8,137 |
| Government Civil Employees: | | | | | | | |
| Group A (a) | 4,121 | 4,121 | 4,121 | 4,121 | 4,121 | 4,121 | 4,121 |
| Group B (b) | 4,053 | 4,053 | 4,053 | 4,053 | 4,053 | 4,053 | 4,053 |
| Group C (c) | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 |
| Subordinate staff | 5,385 | 5,385 | 5,385 | 5,385 | 5,385 | 5,385 | 5,385 |
| General Index of Government Civil Employees | 4,545 | 4,545 | 4,545 | 4,545 | 4,545 | 4,545 | 4,545 |

(a) Administrative grade; (b) Executive grade; (c) Clerical grade.
Source: *Bollettino Mensile di Statistica*.

UNEMPLOYMENT IN ITALY BY ECONOMIC SECTORS

Table M

| Year or month | Agriculture | Industry | Commerce and services | Transport and communications | Unskilled workers | Employees | Total | I. N. (a. av. 1947=100) |
|---------------|-------------|-----------|-----------------------|------------------------------|-------------------|-----------|-----------|-------------------------|
| 1949 - June | 239,808 | 1,034,410 | 46,352 | 22,477 | 378,288 | 93,775 | 1,815,768 | 89.7 |
| December | 371,214 | 1,116,297 | 50,781 | 21,257 | 402,391 | 92,454 | 2,055,606 | 101.7 |
| 1950 - June | 251,524 | 911,241 | 43,158 | 17,978 | 370,790 | 77,550 | 1,672,849 | 82.6 |
| December | 435,552 | 1,024,305 | 47,395 | 19,499 | 470,618 | 71,867 | 2,069,809 | 102.2 |
| 1951 - June | 321,985 | 919,880 | 55,126 | 24,667 | 499,053 | 83,250 | 1,903,961 | 94.0 |
| December | 400,995 | 997,191 | 61,592 | 25,591 | 523,797 | 84,992 | 2,094,158 | 103.4 |
| 1952 - June | 414,885 | 984,341 | 64,597 | 27,014 | 447,800 | 93,071 | 2,031,708 | 100.3 |
| December | 438,503 | 912,948 | 66,838 | 23,440 | 657,090 | 93,206 | 2,192,025 | 108.2 |
| 1953 - March | 500,995 | 875,776 | 68,599 | 24,839 | 689,079 | 93,841 | 2,253,129 | 111.3 |
| June | 472,921 | 827,686 | 45,264 | 18,438 | 670,553 | 96,717 | 2,131,579 | 105.3 |
| July | 439,913 | 819,896 | 42,921 | 18,068 | 669,305 | 98,863 | 2,088,966 | 103.1 |
| August | 438,803 | 800,624 | 40,999 | 17,714 | 661,414 | 95,053 | 2,054,607 | 101.4 |

Source: Ministry of Labour, *Statistiche del Lavoro*.

ITALIAN INDUSTRIAL PRODUCTION INDEXES (a)
(unadjusted, 1938=100)

Table N

| Year or month | General Index | Mining | Manufactures | | | | | | | | | | Electric Power |
|---------------|---------------|--------|--------------|------|----------|--------|-------|-------------|-------------|-------------------|-----------|--------|----------------|
| | | | Total | Food | Textiles | Lumber | Paper | Metal-lurgy | Engineering | Non metallic ores | Chemicals | Rubber | |
| 1950 - a. av. | 121 | 101 | 116 | 134 | 104 | 59 | 106 | 105 | 122 | 119 | 127 | 132 | 160 |
| 1951 - » » | 137 | 119 | 131 | 139 | 109 | 62 | 114 | 135 | 130 | 128 | 171 | 152 | 186 |
| 1952 - » » | 143 | 145 | 136 | 146 | 105 | 62 | 113 | 150 | 142 | 136 | 172 | 142 | 183 |
| 1952 - June | 139 | 132 | 131 | 139 | 96 | 62 | 106 | 149 | 142 | 133 | 166 | 131 | 200 |
| December | 149 | 157 | 142 | 169 | 112 | 55 | 120 | 141 | 143 | 139 | 183 | 150 | 200 |
| 1953 - March | 155 | 179 | 149 | 150 | 117 | 61 | 130 | 135 | 164 | 173 | 195 | 160 | 192 |
| June | 153 | 165 | 146 | 141 | 109 | 56 | 124 | 150 | 153 | 157 | 210 | 148 | 200 |
| July | 167 | 179 | 161 | 151 | 126 | 63 | 139 | 163 | 177 | 157 | 220 | 177 | 212 |
| August | 133 | 156 | 124 | 126 | 75 | 46 | 108 | 138 | 102 | 150 | 217 | 122 | 193 |
| September | 162 | 176 | 156 | 152 | 118 | 62 | 132 | 155 | 163 | 156 | 227 | 173 | 203 |

(a) On the problem of index numbers on Italian industrial production, see this Review, No. 16, January-March 1951: A Note on the Index Numbers of Italian Industrial Production, by E. D'ELIA, pag. 34.
Source: Bollettino Mensile di Statistica.

ITALIAN CONSUMPTION OF SOLID AND LIQUID FUELS, ELECTRIC ENERGY AND NATURAL GAS
(bituminous coal equivalent - in thous. of metric tons - monthly averages)

Table O

| | Index numbers: 1938=100 | | | | Index numbers: 1938=100 | | | |
|-------------------------------|-------------------------|-------|-------|----------|-------------------------|---------|---------|---------|
| | 1950 | 1951 | 1952 | 1953 (a) | 1950 | 1951 | 1952 | 1953 |
| | Coal and lignite | 827 | 908 | 928 | 851 | 76.5 | 84.0 | 85.9 |
| Domestic | 91 | 95 | 98 | 96 | 75.8 | 79.1 | 81.6 | 80. |
| Imported | 736 | 813 | 830 | 754 | 76.6 | 84.6 | 86.4 | 78.5 |
| Petroleum products (import.) | 581 | 720 | 792 | 870 | 156.6 | 194.0 | 213.4 | 234.5 |
| Electric energy | 1,278 | 1,554 | 1,610 | 1,622 | 129.8 | 157.9 | 180.0 | 181.4 |
| Domestic | 1,264 | 1,539 | 1,592 | 1,605 | 143.7 | 175.0 | 181.1 | 182.5 |
| Imported | 14 | 16 | 18 | 17 | 93.3 | 106.6 | 120. | 113.3 |
| Natural gas | 63 | 116 | 177 | 270 | 6,300.0 | 11,600. | 17,700. | 27,000. |
| Total (domestic and imported) | 2,749 | 3,299 | 3,507 | 3,614 | 117.1 | 140.6 | 149.4 | 154. |

(a) On the basis of the first nine months.

Source: Quarterly Statistical Bulletin of the M.S.A.

SOME BUSINESS INDICATORS
Index Numbers, 1948 (annual average)=100

Table P

| Months | Number of rooms planned | Goods loaded and unloaded in Italian ports | Number of telegrams dispatched | Sales in department stores | Iron and steel Industry | | Tourist movement | Railways traffic |
|----------------|-------------------------|--|--------------------------------|----------------------------|-------------------------|-------|------------------|------------------|
| | | | | | Orders | Stoks | | |
| 1952 - March | 356.8 | 181.6 | 129.3 | 186.5 | 194.3 | 126.3 | 182.7 | 120.1 |
| June | 483.4 | 171.0 | 145.4 | 278.5 | 191.1 | 135.8 | 443.9 | 115.3 |
| September | 288.0 | 175.6 | 156.0 | 271.5 | 224.0 | 158.3 | 603.8 | 130.2 |
| October | 422.4 | 168.5 | 157.6 | 351.3 | 210.2 | 155.5 | 366.5 | 130.2 |
| November | 385.9 | 168.0 | 144.7 | 324.8 | 266.8 | 154.4 | 212.5 | 119.7 |
| December | 322.3 | 164.7 | 155.2 | 583.8 | 124.6 | 156.3 | 209.0 | 118.0 |
| 1953 - January | 331.6 | 181.5 | 141.4 | 271.5 | 137.2 | 159.3 | 158.9 | 115.4 |
| February | 423.5 | 204.4 | 146.5 | 227.0 | 135.7 | 156.9 | 161.1 | 121. |
| March | 372.8 | 188.3 | 151.2 | 280.7 | 202.7 | 153.6 | 239.9 | 111.4 |
| April | 458.2 | 198.9 | 154.8 | 344.7 | 112.3 | 153.6 | 442.4 | 109.2 |
| May | 415.7 | 179.1 | 142.7 | 360.1 | 167.9 | 148.7 | 450.3 | 111.6 |
| June | 536.9 | 185.8 | 145.4 | 392.2 | 188.5 | 138.6 | 539.1 | 115.4 |
| July | 482.2 | 190.8 | 153.1 | 350.6 | 211.7 | 133.4 | 871.1 | ... |
| August | 378.2 | 191.8 | 144.8 | 281.8 | 211.4 | 141.6 | 1,263.3 | ... |
| September | 423.0 | 193.6 | 163.8 | 371.2 | ... | ... | 778.2 | ... |

Source: Previsioni a breve termine.

CAPITAL, SHARE PRICES, AND DIVIDENDS OF SOME ITALIAN COMPANIES QUOTED ON STOCK EXCHANGES

Table Q

| Companies | Face Capital (thousands of lire) | Nominal value of shares (lire) | Last Dividend | | Price of share at Sept. 30, 1953 (lire) | Percentage of last dividend on price at Sept. 30, 1953 |
|--|----------------------------------|--------------------------------|-----------------|---------------|---|--|
| | | | Date of payment | Amount (lire) | | |
| <i>Financial and Insurance</i> | | | | | | |
| Finmare - Soc. Finanz. Marittima | 18,000,000 | 500 | 30.10.52 | 32.50 | 402.— | 8.08 |
| Strade Ferrate Meridionali (Bastogi) | 26,250,000 | 1,000 | 8. 7.53 | 80.— | 1,386.— | 5.77 |
| S.T.E.T. - Soc. Torinese Eserc. Telefonici | 28,000,000 | 2,000 | 15. 7.53 | 150.— | 3,150.— | 4.76 |
| La Centrale | 14,112,000 | 4,800 | 19.12.52 | 320.— | 11,780.— | 2.72 |
| Pirelli & C. | 576,000 | 200 | 23. 3.52 | 60.— | 1,747.— | 3.43 |
| Assicurazioni Generali | 10,000,000 | 5,000 | 8. 7.53 | 300.— | 13,690.— | 2.19 |
| Riunione Adriatica di Sicurtà | 4,320,000 | 2,250 | 15. 7.53 | 140.— (a) | 5,790.— | 2.42 |
| <i>Textiles</i> | | | | | | |
| Snia Viscosa | 21,000,000 | 1,200 | — | — | 1,415.— | — |
| Chatillon - Soc. Ital. Fibre Tessili Art. | 5,500,000 | 1,000 | 4. 5.53 | 100.— | 2,155.— | 4.64 |
| Linificio e Canapificio Nazionale | 3,400,000 | 500 | 7. 1.53 | 75.— | 787.— | 9.53 |
| Cotonificio Vittorio Olcese | 2,000,000 | 1,000 | 7. 5.53 | 150.— | 2,310.— | 6.49 |
| Cucirini Cantoni Coats | 5,000,000 | 1,000 | 27. 4.53 | 350.— | 8,610.— | 4.07 |
| Cotonificio Cantoni | 2,400,000 | 1,000 | 27. 4.53 | 300.— | 12,150.— | 2.47 |
| Lanificio Rossi | 1,500,000 | 2,000 | 28. 4.53 | 600.— | 16,300.— | 3.68 |
| Manifattura Lane in Borgosesia | 1,500,000 | 4,000 | 14. 4.53 | 600.— | 13,750.— | 4.36 |
| <i>Minerals, Metals and Engineering</i> | | | | | | |
| Monte Amiata | 2,296,000 | 1,400 | 5. 5.53 | 160.— (b) | 3,483.— | 4.59 |
| Stabilimento Minerario del Siele | 494,208 | 300 | 15. 4.53 | 160.— | 2,850.— | 5.61 |
| Finsider A e B | 30,600,000 | 500 | 15. 7.53 | 45.— | 461.50 | 9.75 |
| Ilva Alti Forni e Acciaierie d'Italia | 15,000,000 | 300 | 4. 5.53 | 24.— | 288.50 | 8.32 |
| Dalmine | 8,000,000 | 500 | 4. 5.53 | 90.— | 2,210.— | 4.07 |
| Terni | 19,687,500 | 250 | 11. 5.53 | 15.— | 206.50 | 7.26 |
| F.I.A.T. | 57,000,000 | 500 | 15. 4.53 | 50.— | 632.50 | 7.91 |
| <i>Public Utilities</i> | | | | | | |
| Soc. Edison | 125,000,000 | 2,000 | 20. 4.53 | 140.— | 1,958.— | 7.15 |
| C.I.E.L.I. | 20,000,000 | 2,000 | 30. 3.53 | 140.— | 2,225.— | 6.29 |
| Soc. Adriatica di Elettricità | 42,000,000 | 1,000 | 2. 7.53 | 70.— | 959.— | 7.30 |
| S.I.P. - Soc. Idroelettrica Piemonte | 52,233,998 | 1,200 | 30. 4.53 | 84.— | 1,230.— | 6.83 |
| Vizzola - Soc. Lombarda Distr. Energia Elettrica | 15,960,000 | 2,000 | 27. 4.53 | 160.— | 2,780.— | 5.76 |
| Soc. Meridionale di Elettricità | 43,545,600 | 1,000 | 13. 7.53 | 75.— | 999.— | 7.51 |
| Soc. Elettrica Selt-Valdarno | 17,420,000 | 3,350 | 10. 3.53 | 270.— | 4,380.— | 6.16 |
| Soc. Romana di Elettricità | 17,420,000 | 3,350 | 10. 3.53 | 270.— | 4,385.— | 6.16 |
| Soc. Telefonica Tirrena - Serie A | 12,960,000 | 3,000 | 23. 3.53 | 175.— | 3,345.— | 5.23 |
| Soc. Telefonica Tirrena - Serie B | 12,960,000 | 3,000 | 23. 3.53 | 175.— | 3,400.— | 5.15 |
| Italcable | 4,200,000 | 3,000 | 7. 5.53 | 200.— | 4,485.— | 4.46 |
| <i>Foodstuffs</i> | | | | | | |
| Eridania - Zuccherifici Nazionali | 9,000,000 | 5,000 | 5. 5.53 | 800.— | 19,350.— | 4.13 |
| Soc. Italiana Industria Zuccheri | 2,700,000 | 1,500 | 4. 5.53 | 375.— | 14,725.— | 2.55 |
| <i>Chemicals</i> | | | | | | |
| Montecatini | 84,000,000 | 700 | 23. 3.53 | 90.— | 978.— | 9.20 |
| A.N.I.C. - Az. Naz. Idrogenazione Combustibili | 7,200,000 | 100 | — | — | 155.50 | — |
| Soc. Ital. per il Gas | 14,850,000 | 1,000 | 7. 7.53 | 80.— | 1,305.— | 6.13 |
| <i>Sundry</i> | | | | | | |
| Soc. Generale Immobiliare | 9,957,875 | 250 | 2. 5.53 | 30.— | 401.— | 7.48 |
| Ist. Romano dei Beni Stabili | 4,917,960 | 3,000 | 4. 5.53 | 180.— | 8,350.— | 2.16 |
| Pirelli Soc. per Azioni | 19,200,000 | 800 | 23. 3.53 | 95.— | 1,749.— | 5.43 |
| Italcementi | 4,000,000 | 1,000 | 5.11.52 | 300.— | 12,955.— | 2.32 |
| Cartiere Burgo | 9,600,000 | 4,000 | 4. 5.53 | 500.— | 9,725.— | 5.14 |

(a) On shares of a nominal value of L. 4,000.

(b) On shares of a nominal value of L. 1,000.

Table R

MINIMUM AND MAXIMUM QUOTATIONS OF SOME ITALIAN COMPANIES QUOTED ON STOCK EXCHANGES
(Lire)

| Companies | 1952 | | | | 1953 | | | | | |
|--|-------------|---------|------------|---------|-----------|---------|------------|---------|-------------|---------|
| | III Quarter | | IV Quarter | | I Quarter | | II Quarter | | III Quarter | |
| | Maximum | Minimum | Maximum | Minimum | Maximum | Minimum | Maximum | Minimum | Maximum | Minimum |
| <i>Financial and Insurance</i> | | | | | | | | | | |
| Strade Ferrate Meridionali (Bastogi) | 1,572 | 1,359 | 1,920 | 1,578 | 2,160 | 1,785 | 1,780 | 1,543 | 1,425 | 1,280 |
| S.T.E.T. - Soc. Torinese Eserc. Telefonici | 3,050 | 2,850 | 3,760 | 2,940 | 3,270 | 2,710 | 2,990 | 2,650 | 3,165 | 2,810 |
| La Centrale | ... | ... | ... | ... | 11,910 | 9,850 | 10,540 | 9,300 | 11,920 | 10,080 |
| Pirelli & C. | 8,230 | 6,990 | 10,630 | 8,025 | 11,910 | 9,850 | 1,510 | 1,349 | 1,735 | 1,475 |
| Assicurazioni Generali | 9,525 | 8,295 | 13,020 | 9,080 | 14,950 | 12,000 | 12,730 | 10,500 | 13,900 | 11,700 |
| Riunione Adriatica di Sicurtà | 5,600 | 4,000 | 6,300 | 4,700 | 6,950 | 5,250 | 5,625 | 4,920 | 6,050 | 5,170 |
| <i>Textiles</i> | | | | | | | | | | |
| Snia Viscosa | 1,935 | 1,495 | 1,752 | 1,475 | 1,675 | 1,400 | 1,400 | 1,110 | 1,550 | 1,345 |
| Chatillon - Soc. Ital. Fibre Tessili Art. | 2,730 | 2,185 | 2,765 | 2,320 | 2,620 | 2,250 | 2,360 | 1,725 | 2,385 | 2,020 |
| Linificio e Canapificio Nazionale | 1,035 | 1,169 | 1,105 | 1,298 | 1,244 | 927 | 935 | 870 | 1,022 | 758 |
| Cotonificio Vittorio Olcese | 2,750 | 3,080 | 2,790 | 3,670 | 3,500 | 2,405 | 2,495 | 2,080 | 2,815 | 2,220 |
| Cucirini Cantoni Coats | 7,350 | 6,610 | 9,750 | 7,000 | 10,040 | 8,125 | 8,890 | 7,390 | 8,700 | 7,500 |
| Cotonificio Cantoni | 25,800 | 18,700 | 13,050 | 11,600 | 13,520 | 11,500 | 11,400 | 10,000 | 12,790 | 10,090 |
| Lanificio Rossi | 14,000 | 13,100 | 16,590 | 13,150 | 16,050 | 14,250 | 15,600 | 14,000 | 17,100 | 14,600 |
| <i>Minerals, Metals and Engineering</i> | | | | | | | | | | |
| Monte Amiata | 2,960 | 2,395 | 3,805 | 2,850 | 3,970 | 3,600 | 3,800 | 2,905 | 3,600 | 3,200 |
| Finsider A e B | 770 | 583 | 710 | 614 | 724 | 515 | ... | ... | ... | ... |
| Ilva Alti Forni e Acciaierie d'Italia | 364 | 287 | 370 | 343 | 371 | 284 | 300 | 238 | 292 | 250 |
| Dalmine | 2,845 | 2,225 | 2,730 | 2,420 | 2,715 | 2,150 | 2,055 | 1,758 | 2,213 | 1,870 |
| Terni | 264 | 230 | 286 | 259 | 290 | 247 | 257 | 196 | 223 | 202 |
| F.I.A.T. | 529 | 461 | 618 | 522 | 664 | 601 | 617 | 553 | 642 | 568 |
| Ansaldo | ... | ... | ... | ... | 230 | 145 | 170 | 105 | 150 | 90 |
| Bianchi Edoardo | ... | ... | ... | ... | 146 | 132 | 456 | 119 | 483 | 449 |
| <i>Public Utilities</i> | | | | | | | | | | |
| Società Edison | 2,193 | 1,998 | 2,470 | 2,107 | 2,780 | 2,402 | 2,508 | 1,803 | 1,980 | 1,848 |
| C.I.E.L.I. | 2,280 | 2,565 | 2,465 | 2,970 | 3,040 | 2,720 | 2,840 | 2,450 | 2,295 | 2,055 |
| Soc. Adriatica di Elettricità | 1,084 | 1,017 | 1,191 | 1,040 | 1,385 | 1,210 | 1,265 | 1,150 | 1,258 | 940 |
| S.I.P. - Soc. Idroelettrica Piemonte | 1,273 | 1,159 | 1,445 | 1,272 | 1,623 | 1,380 | 1,403 | 1,097 | 1,227 | 1,120 |
| Soc. Meridionale di Elettricità | 1,090 | 1,027 | 1,258 | 1,057 | 1,408 | 1,219 | 1,234 | 960 | 1,021 | 954 |
| Soc. Elettrica Selt - Valdarno | 3,950 | 3,485 | 4,425 | 3,815 | 4,775 | 3,850 | 4,200 | 3,728 | 4,460 | 3,875 |
| Soc. Romana di Elettricità | ... | ... | ... | ... | 4,710 | 3,980 | 4,220 | 3,800 | 4,435 | 3,910 |
| Soc. Telefonica Tirrena - Serie A | 2,920 | 2,595 | 3,630 | 2,800 | 4,710 | 3,980 | 3,460 | 3,050 | 3,515 | 3,075 |
| Soc. Telefonica Tirrena - Serie B | ... | ... | ... | ... | 4,255 | 3,480 | ... | ... | ... | ... |
| Italcable | 3,070 | 3,950 | 3,960 | 4,680 | 4,950 | 4,150 | 4,165 | 3,700 | 4,620 | 3,825 |
| <i>Foodstuffs</i> | | | | | | | | | | |
| Eridania - Zuccherifici Nazionali | 20,025 | 16,830 | 22,870 | 19,450 | 25,700 | 21,450 | 24,650 | 15,550 | 19,260 | 16,150 |
| Soc. Italiana Industria Zuccheri | 8,500 | 9,525 | 9,400 | 10,650 | 11,700 | 10,175 | 12,125 | 9,875 | 14,525 | 11,525 |
| <i>Chemicals</i> | | | | | | | | | | |
| Montecatini | 1,091 | 922 | 1,205 | 1,081 | 1,353 | 1,190 | 1,138 | 1,080 | 1,005 | 944 |
| A.N.I.C. - Azienda Naz. Idr. Combustibili | 170 | 157 | 180 | 155 | 166 | 133 | 153 | 119 | 158 | 130 |
| Società Italiana per il Gas | 24 | 21 | ... | ... | ... | ... | 1,288 | 1,077 | 1,324 | 1,182 |
| <i>Sundry</i> | | | | | | | | | | |
| Soc. Gen. Immobiliare | 454 | 350 | 550 | 435 | 567 | 458 | 479 | 307 | 416 | 348 |
| Istituto Romano dei Beni Stabili | 7,450 | 5,430 | 8,800 | 6,980 | 10,030 | 7,875 | 8,890 | 6,500 | 8,350 | 6,750 |
| Pirelli Soc. per Azioni | 1,225 | 925 | 1,395 | 1,205 | 1,512 | 1,327 | 1,425 | 1,330 | 1,665 | 1,414 |
| Italcementi | 9,770 | 7,460 | 10,900 | 8,970 | 12,200 | 10,100 | 11,525 | 9,730 | 13,180 | 11,525 |
| Cartiere Burgo | 7,500 | 6,320 | 8,970 | 6,640 | 10,000 | 8,530 | 9,750 | 8,490 | 9,950 | 8,760 |

Source: Bollettino Mensile di Statistica.

Table S

CAPITALISATION INDEXES OF SOME ITALIAN COMPANIES QUOTED ON STOCK EXCHANGES (*)
(capital value of 1 lira invested in 1938)

| Companies | L i r e | | | | | | | | |
|--|---------------------|--------------|---------------|------------|------------|----------|-----------|-----------|---------------------|
| | August-Septem. 1952 | January 1953 | February 1953 | March 1953 | April 1953 | May 1953 | June 1953 | July 1953 | August-Septem. 1953 |
| <i>Financial and Insurance</i> | | | | | | | | | |
| Strade Ferrate Meridionali (Bastogi) | 22.69 | 29.00 | 30.66 | 27.65 | 24.95 | 25.16 | 23.44 | 25.21 | 26.54 |
| S.T.E.T. Soc. Torinese Esercizi Telefonici | 16.44 | 31.40 | 20.16 | 19.33 | 19.33 | 19.47 | 19.33 | 19.68 | 21.75 |
| La Centrale | 24.47 | 36.60 | 39.89 | 36.08 | 34.69 | 35.04 | 34.55 | 35.24 | 41.28 |
| Pirelli & C. | 31.77 | 46.44 | 43.02 | 35.68 | 33.24 | 33.83 | 35.20 | 37.00 | 41.55 |
| Assicurazioni Generali | 29.16 | 11.22 | 11.35 | 10.66 | 10.66 | 10.11 | 38.57 | 41.29 | 45.88 |
| Riunione Adriatica di Sicurtà | 33.31 | 40.65 | 41.46 | 38.07 | 35.35 | 35.62 | 34.80 | 36.03 | 40.11 |
| <i>Textiles</i> | | | | | | | | | |
| Snia Viscosa | 20.16 | 19.91 | 20.54 | 18.02 | 16.38 | 15.00 | 16.64 | 18.02 | 18.15 |
| Chatillon Soc. It. Fibre Tessili Art. | 33.91 | 37.94 | 37.78 | 35.61 | 31.90 | 30.66 | 30.97 | 32.89 | 33.29 |
| Linificio e Canapificio Nazionale | 27.63 | 26.37 | 25.87 | 23.51 | 22.96 | 22.41 | 22.20 | 22.61 | 19.09 |
| Cotonificio Vittorio Olcese | 39.55 | 46.76 | 43.22 | 35.31 | 32.77 | 30.37 | 31.08 | 39.55 | 34.47 |
| Cucirini Cantoni Coats | 68.69 | 92.58 | 99.55 | 96.40 | 98.72 | 103.13 | 102.86 | 109.92 | 116.97 |
| Cotonificio Cantoni | 108.02 | 127.84 | 127.84 | 115.95 | 101.08 | 103.06 | 99.69 | 109.01 | 118.92 |
| Lanificio Rossi | 42.60 | 48.40 | 48.40 | 49.05 | 48.40 | 45.82 | 46.47 | 49.69 | 50.02 |
| Manifattura Lane di Borgosesia | 47.88 | 59.94 | 55.98 | 53.16 | 49.57 | 51.46 | 50.14 | 51.65 | 52.21 |
| <i>Minerals, Metals and Engineering</i> | | | | | | | | | |
| Monte Amiata | 28.26 | 38.07 | 36.89 | 37.28 | 32.57 | 33.16 | 32.38 | 33.36 | 33.75 |
| Stabilimento Minerario del Siele | 34.19 | 43.65 | 45.58 | 42.73 | 34.90 | 35.04 | 33.90 | 39.74 | 42.31 |
| Ilva Alti Forni e Acciaierie d'Italia | 5.68 | 6.05 | 5.41 | 4.81 | 4.28 | 4.04 | 4.18 | 4.71 | 4.68 |
| Dalmine | 172.84 | 182.40 | 168.06 | 150.29 | 132.53 | 135.27 | 127.75 | 128.43 | 142.10 |
| Terni | 6.10 | 6.99 | 6.35 | 6.20 | 5.60 | 5.31 | 5.01 | 5.31 | 5.11 |
| F.I.A.T. | 18.11 | 23.43 | 22.82 | 22.45 | 20.46 | 21.67 | 22.89 | 22.89 | 24.18 |
| Ansaldo | 0.10 | 0.11 | 0.10 | 0.09 | 0.08 | 0.08 | 0.08 | 0.06 | 0.06 |
| Bianchi Edoardo | 13.44 | 15.39 | 15.17 | 14.95 | 13.33 | 12.34 | 12.46 | 12.79 | 13.06 |
| Nebiolo | 0.43 | 0.55 | 0.50 | 0.47 | 0.44 | 0.39 | 0.43 | 0.39 | 0.37 |
| S. Giorgio | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | ... | ... |
| <i>Public Utilities</i> | | | | | | | | | |
| Soc. Edison | 25.26 | 32.47 | 29.59 | 30.07 | 28.48 | 28.71 | 27.42 | 27.93 | 28.98 |
| C.I.E.L.I. | 20.54 | 23.96 | 22.49 | 21.24 | 21.11 | 21.18 | 18.76 | 21.93 | 22.33 |
| Soc. Adriatica di Elettricità | 12.24 | 14.69 | 14.37 | 14.71 | 14.19 | 14.96 | 14.36 | 14.07 | 14.42 |
| S.I.P. Soc. Idroelettrica Piemonte | 13.36 | 17.29 | 16.32 | 14.91 | 14.92 | 15.68 | 14.88 | 15.02 | 16.16 |
| Soc. Meridionale di Elettricità | 12.09 | 14.18 | 14.75 | 13.90 | 13.99 | 14.18 | 13.64 | 13.42 | 13.90 |
| Soc. Elettrica Selt - Valdarno | 15.77 | 18.68 | 18.26 | 15.98 | 16.60 | 16.68 | 16.06 | 16.60 | 18.39 |
| Soc. Romana di Elettricità | 23.14 | 27.38 | 27.07 | 24.61 | 24.61 | 24.74 | 23.87 | 24.61 | 27.26 |
| Soc. Telefonica Tirrena | 18.18 | 25.26 | 25.51 | 23.22 | 21.66 | 21.53 | 20.33 | 20.86 | 23.19 |
| Italcable | 58.52 | 72.32 | 69.02 | 63.02 | 60.02 | 57.02 | 56.57 | 59.12 | 66.62 |
| <i>Foodstuffs</i> | | | | | | | | | |
| Eridania - Zuccherifici Naz. | 56.62 | 72.37 | 70.04 | 65.95 | 69.60 | 68.87 | 69.82 | 72.67 | 83.17 |
| Soc. Italiana Industria Zuccheri | 61.25 | 75.77 | 74.84 | 70.88 | 69.56 | 71.28 | 73.66 | 79.86 | 95.70 |
| <i>Chemicals</i> | | | | | | | | | |
| Montecatini | 15.93 | 19.57 | 19.12 | 17.91 | 17.93 | 18.40 | 18.36 | 18.83 | 19.54 |
| A.N.I.C. - Az. Naz. Idr. Combustibili | 5.27 | 5.01 | 4.44 | 4.76 | 4.12 | 4.00 | 4.12 | 4.69 | 4.76 |
| Soc. Ital. per il Gas | 10.11 | 13.20 | 12.12 | 11.33 | 10.93 | 12.61 | 12.12 | 12.12 | 12.65 |
| <i>Sundry</i> | | | | | | | | | |
| Soc. Gen. Immobiliare | 22.96 | 28.47 | 27.52 | 25.08 | 23.28 | 22.54 | 21.63 | 22.14 | 25.30 |
| Ist. Romano Beni Stabili | 33.65 | 42.42 | 42.42 | 40.76 | 39.34 | 38.39 | 38.63 | 39.77 | 46.87 |
| Pirelli Soc. per Azioni | 27.50 | 33.42 | 33.51 | 31.80 | 31.43 | 31.98 | 35.20 | 37.00 | 41.55 |
| Italcementi | 85.64 | 110.51 | 110.51 | 102.40 | 95.40 | 95.77 | 105.44 | 108.67 | 119.72 |
| Cartiere Burgo | 68.10 | 97.57 | 92.70 | 92.49 | 94.53 | 86.80 | 88.43 | 90.05 | 96.05 |

(*) The index of capitalisation represents the capital value, at the end of a given period, of one lira invested in January, 1938, and it is obtained by the following formula: $I_t = P_t N_t / P_0 N_0$, in which P_t = the price, at the time t , of the security in question; N_t = the number of shares held at the time t by a shareholder owning N_0 shares at « 0 » time, purchased at the price P_0 , who has on each occasion reinvested the value (at the price on the first day of option) of his bonus or cash shares in the same security, as well as any repayments of capital and other proceeds accruing to him from the ownership of the said shares, dividends excluded.

Source: Bollettino of the Central Institute of Statistics.