

REVIEW OF THE UNION'S NATIONAL ACCOUNTS, 1946-1953

The purpose of the present article is to review the trends in the national accounts of the Union for the eight year period, 1946-1953. The analysis will be confined to a description of the behaviour and interrelation of broad aggregates, such as national income and national expenditure. Statistics relating to the Union's net geographical and net national income¹ are calculated by the Bureau of Census and Statistics,² and the disposition of the national income is set out in Tables XXXVII and XXXVIII³ in this *Bulletin*.

THE POST-WAR PRODUCTION TREND

Between 1945/46 and 1952/53 the Union's Net National Income or Product, at current market prices,⁴ increased from £700.6 million to £1,322.2 million, which represents a percentage change of 88.7 per cent. This increase reflects the combined influence on overall production, of (a) an increase in the physical volume of goods and services produced, and (b) of an increase in the general price level. The retail price index, for instance, shows a rise of 42.2 per cent. during this period.

The post-war expansion of production did not take place in an orderly manner, having regard to the requirements of consumers and entrepreneurs. Throughout this period the economy was subject to the same severe strain that characterised the war years, in that aggregate demand for the nation's output exceeded the available supply of goods and services, with the inevitable inflationary pressure

that this involved. The Government was forced to intervene in the nation's productive system, firstly, in the readaptation of the economy from a war-time to a peace-time footing, and, secondly, by the adoption of a series of drastic measures, such as import control, restrictive credit policy and increased taxation, with a view to preserving a state of approximate equilibrium between overall demand and supply, and protecting the country's monetary reserves.

The two principal bottlenecks that limited the ability of the economy to expand production in the face of the record post-war demand, namely shortage of labour and productive capacity, have been the subject of much discussion among students of the Union's recent economic trends. As far as the former is concerned, the Union's economy has shown the tendency of pushing against the full employment ceiling since the second half of the thirties, but lately the labour shortage has, if anything, become even more acute. The presence of the second bottleneck, viz. the inadequacy of the Union's capital resources, has been apparent in most sectors of the economy, but especially in three industries, namely transportation, generation of electric power, and housing.

During the six war years very little was done in the way of adding to, and in some cases even maintaining, the nation's capital stock. At the same time, the Union's population continued to grow at the rate of two per cent. per annum, and, furthermore, there was a continuation of the shift of population from the rural to urban areas, which added to the burden of broadening the capital base of the economy, *pari passu* with the increase in population.⁵

Despite the presence of these limiting factors, the Union's labour and capital structure displayed enough flexibility and adaptability to prevent the post-war surplus demand from largely dissipating itself in inflation, for, as mentioned above, the national income, at current prices, increased at a faster rate than, for instance, the retail price level. It must be added, in this connection, that during the first few post-war years, a significant portion of the excess demand was met from increased imports, without the latter being offset by a corresponding increase in exports from the Union, so that the net expansionary effect on production was felt by the countries that exported their goods to the Union.

In the absence of statistics relating to the rate of real output of the constituent industries in the Union's economy, it is not possible, at this stage, to comment upon the trend of real national income, i.e. national

1. Net geographical income or product is the value of goods and services which is attributable to all the factors of production located within the domestic territory of a nation. It differs from net national income or product because the latter does not include factor incomes earned within the domestic territory by foreign labour or capital, but is restricted to the income or product accruing to the nation's residents.

2. Hereinafter referred to as Bureau.

3. Attention should be drawn to the fact that several differences exist between the national income series published by the Bureau, and that appearing in Table XXXVIII A [Item 1(a)]. Firstly, the Bureau's figures refer to years ended 30th June, while the figures in Table XXXVIII A are on a calendar year basis. Further, an operation known as "inventory valuation adjustment" has been effected in this Table, i.e. changes in the book value of business inventories or stocks have been adjusted for variations in the Union's wholesale price index. Although the Bureau publishes inventory revaluation figures in its latest National Income Memorandum (No. 13), this adjustment item has not been taken into account in its published national income total. As far as the measurement of the return on non-Union capital is concerned, the Bureau calculates this item gross of Union taxation, and imputes undistributed profits to foreigners on their "direct" as well as their "portfolio" investments. In Table XXXVIII A, however, the method of calculation is based on the definitions of foreign capital formulated by the International Monetary Fund, in accordance with which foreign income is measured net of Union taxes, and undistributed profits are not taken into account in the case of "portfolio" investment. Another source of difference is the exclusion of payments of employers to social security funds from the Bureau's national income figures, whereas the relevant amounts have been included in the national income series in Table XXXVIII. There is, however, no difference between the two series as regards the adjustment of geographical income for the incomes earned by non-Union native migrant workers, although this was the case with the national income figures included in Table XXXVIII A in issues of this *Bulletin* prior to September, 1954.

4. I.e. net national income or product at factor cost, plus indirect taxes less subsidies.

5. The total urban population increased from 3.1 million, in 1936, to 4.4 million, in 1946, a rise of 1.3 million over the period of ten years. In 1951 the total urban population numbered 5.4 million, i.e. an increase of one million during the first five years of the post-war period. The 1936 figure has been adjusted so as to bring it in conformity with the definition of urban population employed in the 1951 Population Census.

income at constant prices, so that the discussion of production trends has to be based on income and expenditure figures at current prices.

CONTRIBUTIONS OF DIFFERENT INDUSTRIES TO TOTAL SUPPLY

The current value of the contributions of individual industries to the Net Geographical Product of the Union is shown, in absolute and percentage terms, in Table I. From this it will be noticed that significant shifts have occurred in the relative position of the five principal industrial sectors distinguished in the Table.

Table I.

Net Geographical Product, by Type of Industry.⁶

	Agriculture	Mining	Manufacturing	Trade	Other ⁷	Total
	A. £ Millions					
1946/47	96.0	86.9	155.6	131.7	270.8	741.0
1947/48	128.9	88.5	182.0	133.3	304.1	836.8
1948/49	121.0	93.6	195.4	148.3	333.0	891.3
1949/50	138.9	141.5	225.3	153.6	359.9	1019.2
1950/51	220.3	159.8	277.9	173.3	403.5	1234.8
1951/52	174.4	174.6	317.7	165.5	440.6	1272.8
1952/53	215.0	174.2	346.2	175.3	480.8	1391.5
	B. Percentage Contribution.					
1946/47	13.0	11.7	21.0	17.8	36.5	100.0
1947/48	15.4	10.6	21.7	15.9	36.4	100.0
1948/49	13.6	10.5	21.9	16.6	37.4	100.0
1949/50	13.6	13.9	22.1	15.1	35.3	100.0
1950/51	17.8	12.9	22.5	14.0	32.8	100.0
1951/52	13.7	13.7	25.0	13.0	34.6	100.0
1952/53	15.4	12.5	24.9	12.6	34.6	100.0

The percentage contribution of trade to the national income displays a rather drastic decline in the post-war period. A decline is also apparent in the case of the productive activities such as transport and the provision of government services, which are grouped together under the heading "Other" in the Table.

Changes in the terms of trade,⁸ i.e. in the ratio of the Union's export prices to its import prices, seem to have had a decisive influence on the income status of the two primary industries, viz. farming and mining, included in Table I, and the effect of this external factor will be examined in the next two sections.

As far as internal influences on the Union's production trend are concerned, one of the most important is the inter-industry shift of labour resources.

6. The figures for 1945/46, which were calculated by Prof. S. H. Frankel, have been omitted from the Table, as his classification of the individual industries differed, in some respects, from that employed by the Bureau since 1946/47.

7. Incomes derived from the following activities are included under this heading: Transportation, Catering, Professions, Finance (Private), Miscellaneous Business (Public and Private), Home Ownership, Public Authorities, Private Households and Non-Profit Societies, Clubs, Unions, etc.

8. As an illustration of the extent to which an improvement in the terms of trade can affect the national income of a country that has a big stake in export production, the changes in the level of the Australian national income, at current prices, for the years 1949/50 and 1950/51, may be cited. During the latter year, the net income of farming rose considerably, due mainly to the then ruling record wool prices, and this was the principal reason for the increase of £825 million in the national income, i.e. from £2,304 million to £3,129 million, or 35.8 per cent.

Figures relating to the increase in the number of persons employed in a few selected industries are given in Table II.

Table II.

Changes in the Number of Employees in Selected Industries.

Industry	1946	1953	Percentage Change
Farming	797,000	952,000 ⁹	19
Mining	465,000	495,000	6
Manufacturing	511,000	782,000	53
Trade	365,000	435,000 ¹⁰	19
Transport (S.A.R. & H.)	172,000	209,000	22

The data of Table II indicate that the Union's manufacturing industry experienced a far more rapid rate of growth in its labour force than was the case with the other industries included in the Table, and most of the increase in the percentage contribution of manufacturing to the national income seems to have been due to the relative expansion that occurred in its number of employees. The labour force of manufacturing grew at an average rate of six per cent. per annum in the post-war period, as against an annual increase of about two per cent. in the Union's overall labour force. The rate of development of the manufacturing industry was greatly stimulated, firstly, by the aftermath of the war economy, and, secondly, by the Union's post-war inflow of foreign capital, and the introduction of import control which tended to foster the local manufacture of goods formerly imported.¹¹

NET INCOME OF FARMING

The value of the net production of farming, at current prices, was subject to violent and erratic fluctuations in the post-war period, as is indicated by the figures in Table III.

Table III.

Changes in Farming Income, 1945/46—1952/53.¹²

Year	Net Income (£ millions)	Year-to-year Change
1945/46	82.2	
1946/47	96.0	13.8
1947/48	128.9	32.9
1948/49	121.0	-7.9
1949/50	138.9	17.9
1950/51	220.3	81.4
1951/52	174.4	-45.9
1952/53	215.0	40.6

9. Employees on farms occupied by whites. The figure for 1946 has been adjusted in order to bring it in conformity with the definition of the number of persons employed in farming in the 1953 Agricultural Census.

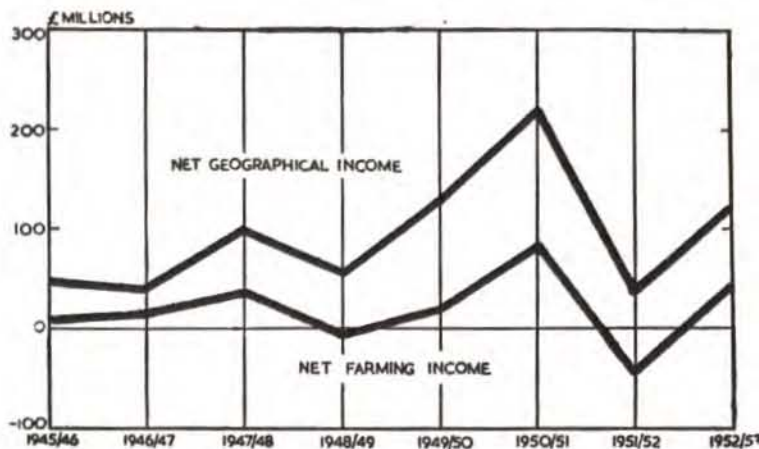
10. For the year 1952.

11. The number of industrial establishments increased from 11,351, in 1945/46, to 15,564, in 1951/52 (latest available figure).

12. These figures of the Bureau include the income of private forestry and fishing, but the aggregate contribution of the latter to the joint total does not exceed £3 million per annum.

The instability of farming income is so pronounced that in spite of the fact that its income constitutes only about 15 per cent. of the Union's post-war geographical income, it is nevertheless primarily responsible for the fluctuations that are observed in the latter. This is borne out by Chart I, which incorporates the year-to-year changes in the two series, and which reveals the correspondence of the peaks and troughs of the farming and total geographical income curves.

Chart I. — Year-to-year changes in Net Geographical Income and Net Farming Income.



The principal contributory factor towards these violent fluctuations in farming income has been the fluctuations in the price of wool, which is the most important product of the Union's farming industry. The magnitude of these fluctuations in the international price of wool caused the gross income of wool farmers to increase from £33.3 million, in 1949/50, to £79.7 million, in 1950/51, but to decline again to £44.1 million in 1951/52. Besides fluctuations in the income from wool, weather conditions also influenced the level of gross income derived from the main agricultural crops, especially maize, to a very marked degree in the last few years.

THE NET INCOME OF THE GOLD MINING INDUSTRY

As far as the impact of the terms of trade on the gold mining industry is concerned, the post-war period stands in marked contrast to the thirties, in which the increase in the price of gold, accompanied by the absence of inflationary conditions, led to an increase in the value of the net product of the industry from £34.8 million, in 1931/32, to £72.3 million, in 1938/39. During the post-war period, however, the terms of trade were most unfavourable from this industry's point of view, and its net income remained practically stationary up to devaluation, in September, 1949, as will be noted from Table IV.

Table IV.
Net Income of the Gold Mining Industry.

Year	Net Income (£ millions)
1945/46	73.8
1946/47	67.6
1947/48	68.5
1948/49	69.4
1949/50	108.2
1950/51	117.7
1951/52	114.5
1952/53	113.4

In 1949/50, a very substantial gain in net income, amounting to about £40 million, was attained, but this recovery was short-lived, and from 1950/51, the industry was again unable to increase its contribution to the national income.

NATIONAL INCOME BY INCOME TYPE

In the foregoing sections the contribution of various industries to the post-war national income of the Union has been discussed. It is also important, however, to study the behaviour of national income, broken down by income type. This breakdown represents a classification of earnings according to the forms in which they accrue to residents of the nation, i.e. compensation of employees, profits of corporate and unincorporated enterprises, net interest, and net rent.

The only data available in respect of this classification of national income are those furnished by the Bureau¹³ under the headings "Salaries and Wages" and "Other Income". The latter includes the various types of property income, i.e. profits, interest and rent. Owing to the lack of data, it is not as yet possible to give separate totals for these different types of property income.

Table V gives the percentage shares of salaries and wages and "Other Income" for the years 1949/50—1952/53.¹⁴

Table V.
Percentage Distribution of Geographical Income by Income Type, 1949/50—1952/53.

Income Type	1949/50		1950/51		1951/52		1952/53	
	£ mil.	%	£ mil.	%	£ mil.	%	£ mil.	%
Salaries and Wages	595	58.0	656	53.4	748	58.8	825	59.3
Other Income	431	42.0	571	46.6	525	41.2	567	40.7
Total	1,026	100.0	1,227	100.0	1,273	100.0	1,392	100.0

13. The Bureau's breakdown refers to the geographical income of the Union.

14. 1949/50 is the first year for which the income type breakdown for all industries has been published.

The percentage share of salaries and wages in geographical income amounts to about 59 per cent., except for the year 1950/51, when it declined to 53 per cent., mainly as a result of the big increase in the net profits of farming in that year. On the whole, however, the salaried and wage-earning class seems to have been able to hold its own,¹⁵ as far as the distribution of income is concerned, in the period covered by the available statistics.

GEOGRAPHICAL AND NATIONAL INCOME

The adjustment of the Union's geographical income for the amount earned by foreign labour and capital so as to obtain national income, i.e. the income accruing to the nation's residents only, has become bigger, both in absolute and relative terms, since the beginning of the post-war period. In 1945/46, it amounted to £54.6 million, or 7.8 per cent. of geographical income, as compared with £139.2 million, or 10.0 per cent., in 1952/53. This increase in non-Union factor income is mainly due to the larger return on foreign capital invested in the Union.

On the basis of the classification adopted by the Bureau, the non-Union factor income for the year 1952/53 amounted to £139.2 million, of which £16.0 million was in respect of labour income, paid primarily to foreign natives employed in the mining industry, while the balance accrued to foreign suppliers of capital. The latter amount, in turn, was composed of £54.7 million declared as dividends, £2.9 million paid as interest on loans of public authorities, and £65.6 million paid to the Union Government in taxes and put to reserve.

Very little direct information is available with regard to the form in which foreign capital participates in the Union's economy, and the present calculations are based on the Non-Resident Shareholders Tax returns. However, in its annual publication: *United Kingdom Overseas Investments*, the Bank of England gives estimates of the nominal capital value of, and of the interest paid and dividends distributed on the South African investments of U.K. residents through the medium of securities quoted on, unofficially dealt in, or otherwise known to the London Stock Exchange. These figures, which are summarised in Table VI, indicate an upward trend in the yield of portfolio investments, but no information is available with regard to the return on direct investments of U.K. residents in branch establishments or subsidiary companies operating in the Union.

Table VI.

Nominal Capital value of, and Interest and Dividends on U.K. Investments in South Africa, 1945—1952.

	(£ millions)							
	1945	1946	1947	1948	1949	1950	1951	1952
Nominal Value, All Securities ¹⁶	111	118	127	127	149	161	161	160
Interest and Dividends	12.2	12.8	14.5	15.0	15.9	18.8	21.1	20.8

CONCLUSIONS

The main points that emerge from the foregoing discussion of the income side of the Union's national accounts for the post-war period are:—

1. A significant shift took place in the contributions of individual industries to the Union's national income, at current prices. Manufacturing consolidated its position as the most important source of net income, and an improvement can be observed in the relative income position of farming, while the percentage share of mining shows only a slight increase. A drastic downward shift occurred, however, in the income status of trade, and a smaller percentage decline is noticeable in the joint total of the transport and service industries.
2. As in the thirties, shifts in the terms of trade have had an important bearing on the level of income in the post-war period, but the benefits have accrued to different industries in these two periods. In the former period, the main beneficiary was the gold mining industry, and, in the latter, the producers of raw materials and minerals, other than gold.
3. Since 1949/50 the percentage share of salaries and wages in geographical income remained about the same, except for a temporary setback in the year 1950/51.
4. The percentage of geographical income paid to foreign labour and capital for productive services rendered in the Union's economy showed an increase during the post-war period.

TRENDS IN NATIONAL EXPENDITURE

The rate of growth and the size of a nation's overall production are not the only matters that deserve attention in an appraisal of the achievements of an economy during any given period. It is equally important to investigate the purposes for which the productive resources were used. A discussion of the trends revealed by the Union's national expenditure statistics for the period 1946-53 will be given in the next issue of this *Bulletin*.

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15. The average percentage share of wages and salaries in the *net national income* of the Union for the period 1949/50—1952/53, namely 62 per cent., is less than the corresponding figures for Western countries such as the United Kingdom (72 per cent.), and the U.S.A. (66 per cent.).

16. The Bank of England's tables distinguish between investments in Government and Municipal Loans, U.K. registered companies, and companies on the South African register.