AUSTRALIA'S EXPORT PERFORMANCE

IN FINISHED MANUFACTURES, 1954/5 to 1964/5

Submitted for examination
for the degree of
Master of Economics
Faculty of Economics
School of General Studies
Australian National University
Canberra, A.C.T.

Alan Gordon Waters, 1968.

I certify that I have acknowledged all the sources used in this thesis and that the thesis is my own composition.

(A.G. Waters)

CONTENTS

LIST OF TABLES AND FIGURES IN THE TEXT

LIST OF TABLES IN APPENDIX A

Australia's exports of finished manufactures

CHAPTER 1

INTRODUCTION AND MAIN FINDINGS

I INTRODUCTION

A considerable amount of Government effort in the post war period, especially following the balance of payments crisis of 1954/5, has been directed towards promoting Australian manufactured exports overseas and towards fostering 'export consciousness' among manufacturers at home.[1] Mainly as a result of Government persuasion, the need to increase exports of manufactures has become widely understood in Australia and considerable public discussion has taken place on how this increase might be achieved. By the end of 1963, when it had become apparent that Australian exports of manufactures were increasing rapidly, the

---

1. R.P. Deane, The Establishment of the Department of Trade, (Canberra: The Australian National University), 1963, especially pages 5, and 46 to 48.

emphasis of public discussion changed to one of recognition of the success of the 'export drive'.[2]

In spite of the widespread interest aroused in the subject no formal assessment has been made, to my knowledge, of the nature and the performance of the exports of Australian manufacturing industries.[3] The present study undertakes part of this task. The general field of enquiry is the composition, direction and performance of Australia's exports of finished manufactures over the past decade. As defined in Chapter 2, finished manufactures are non-food manufactures which do not require further processing before final use.[4]

---

2. See, for example, the editorial "Results with Significance", The Australian Financial Review, 25 February, 1964, p.2. and J.O.N. Perkins, Anti-cyclical Policy in Australia 1960-1964, (Melbourne: Melbourne University Press), 1965, p.30. A reduction in the rate of growth of Australia's manufactured exports after 1964/5 has since led many observers to believe the 'export drive' has lost momentum. This assertion should not, however, be made solely on the evidence of recorded export statistics. The influence of fluctuations in overseas demand for imports should first be eliminated. See Chapter 5 pp.175-184.

3. There have, however, been studies of the manufacturing content of exports at various times. See, for example, G.R. Webb, "A Statistical Estimate of Manufactured Exports, Post-War", Economic Society of Australia and New Zealand, Economic Monograph No.16, October, 1959, and Burgess Cameron "New Aspects of Australia's Industrial Structure", Economic Record, 34, December 1958,

4. Chapter 2, pp.23-25.

Parts and components of durable finished manufactures are included following established practice. The main commodities included are machinery, electrical and communication equipment, transport equipment, hardware, apparel and drugs. Also included are a wide range of miscellaneous manufactures such as scientific instruments and unexposed film.

The reasons for excluding intermediate manufactures from this study are also set out in Chapter 2.[5] Intermediate manufactures (by definition) require further manufacture before final use and their competitiveness in world trade is strongly influenced by the abundance and quality of natural resource endownments. Accordingly primary-producing countries which do not possess a strong manufacturing sector can nevertheless achieve considerable exports in a narrow range of industrial raw materials which are included in accepted definitions of exports of manufactures.[6] Finished manufactures, on the other hand,

---

5. Chapter 2, pp.23-25.

6. See the discussion by A. Maizelson the use of the proportion of finished manufactures in total exports of a country as an indicator of industrialization. A, Maizels, Industrial Growth and World Trade, (Cambridge: Cambridge University Press), 1963, pp. 57, 58.

broadly correspond with those manufactures which have undergone the more complex manufacturing processes. It was thus considered that the ability of the Australian manufacturing industry to compete overseas could best be assessed by analysing Australia's exports of finished manufactures.

The duration of the period chosen for this study - 1954/5 to 1964/5 - is sufficient for longer term trends to be apparent. Selection of the base year was influenced by the need to avoid the distortions to world trade caused by World War II.[7] At the time of compilation of the statistics, the year 1964/5 was the latest year for which Australian export statistics were available.

II PRINCIPAL AIMS

The broad field of enquiry, then, is Australia's exports of finished manufactures over the period 1954/5 to 1964/5. Within this field the study concentrates on two main objectives. The first principal objective is

---

7. See the discussion on the recovery from the war of Germany and Japan by S.J. Wells, British Export Performance: A Comparative Study, (Cambridge: Cambridge University Press), 1964, p.4.

to describe and analyse the patterns emerging in the composition and direction of Australia's exports of finished manufactures, identifying any consistent relationships which exist between the stage of economic development of the countries of destination and the type of finished manufactures which Australia exports to them.

Secondly, it will examine whether there has been an improvement in the performance of Australia's exports of finished manufactures during the period, particularly when measured against trends in world trade in these commodities. It is then proposed to examine the factors which may have been responsible for any improvement in Australia's performance.

III PLAN OF STUDY

The remainder of this chapter outlines the plan of this study, describes the basis of the commodity and country classifications used and (in Part IV) summarises its main findings.

Chapter 2 defines in further detail the scope of the study, and describes the procedure followed in reclassifying and adjusting the published trade statistics to serve the objectives set out in Section II above.

In the adjustments, the value of re-exports, aid shipments and second-hand ships were excluded from the series of Australia's exports of finished manufactures. The sources from which the basic data have been drawn are also identified in Chapter 2.

Chapter 3 describes the main trends in the composition and direction of Australia's exports of finished manufactures over the period 1954/5 to 1964/5. An analysis is made of the extent to which the commodity composition of these exports is related to the stage of development of the country of destination.

For the purpose of this chapter Australia's exports of finished manufactures over the period were cross-classified by commodities and by countries of destination according to economic criteria. The commodity classification was based primarily on economic use principles and consisted of four major categories: capital goods, consumer goods (subdivided into durable and non-durable), passenger cars and motor vehicle parts and 'other' finished manufactures.[8]

---

8. Discussed in more detail in Chapter 2, pp. 33-37.

Countries to which Australia exports finished manufactures were grouped into two broad categories:- industrial and primary-producing countries. Within the two broad headings of industrial and primary-producing countries, a regional sub-classification was used constructed along geographical lines.[9]

Industrial countries were defined as Western Europe, North America and Japan. All other countries (including the Sino-soviet bloc, South Africa and New Zealand) were designated as primary-producing.[10] It was found useful to distinguish Oceania (i.e. the Oceanian Islands and New Zealand) from other primary-producing countries in view of its importance in Australia's exports of finished manufactures and the distinctive characteristics of Australia's exports to the area. The term "other" primary-producing countries used in this study refers to all primary-producing countries other than the Oceanian area.

---

9. The regional classification of countries was based on that used in the annual statistical publication Australia: Pattern of Trade, prepared by the Central Statistical Unit of Department of Trade and Industry, Canberra.

10. This classification of industrial and primary-producing countries is virtually identical to that used in "United Kingdom and World Exports of Manufactures in the Past Decade", Supplement to Board of Trade Journal (London), 18 November 1966, p.XXVIII.

Chapter 4 analyses Australia's export performance in finished manufactures during the period. There is also an examination of the relationship between fluctuations in economic activity in the industrial countries, in 'world' trade in finished manufactures and in Australian exports in these commodities. The exports of finished manufactures of ten major industrialized countries have been taken as representative of 'world' trade in these commodities.[11] The industrial countries chosen are the United States of America, Canada, the United Kingdom, Belgium-Luxemburg, France, Federal Republic of Germany, the Netherlands, Sweden, Italy and Japan. The exact share of total world exports of finished manufactures accounted for by these selected countries has not been calculated in this study due to the disproportionate amount of time in compiling statistics on world trade in these commodities. However, it can be readily calculated that

---

11. The practice of using the exports of manufactures of the main industrial countries to represent trends in world trade of these commodities is well established. See, for example, Ibid., p.XXVIII and S.J. Wells, British Export Performance: A Comparative Study (Cambridge: Cambridge University Press), 1964, p.XXI. In both these examples eleven industrial countries were chosen to represent world trade. Switzerland was excluded in this study as no trade returns are made for this country on an S.I.T.C. basis. Switzerland accounts for about 3½ per cent of the exports of manufactures of the eleven industrial countries.

these ten countries in 1964 accounted for 82 per cent of total world exports of manufactures (i.e. including semi-processed manufactures).

For the purpose of assessing Australia's export performance in finished manufactures by commodity categories a classification was adopted based on the United Nations Original (1950) Standard International Trade Classification (SITC).[12] This classification is widely used in the classification of international trade statistics and is consequently the most suitable framework in which to compare trends in Australian exports and world trade. There are some differences in coverage between the classification based on SITC groups and the classification based on economic use principles used in Chapter 3.

The increase in Australia's exports of finished manufactures over the final few years of the period is analysed in Chapter 5.[13] An estimate is made of the contribution to this increase made by the growth in demand for imports by 'Australia's' markets. This required

---

12. See pages 38-41.

13. See pages 189-198.

estimating the growth over these years in the imports of finished manufactures, classified into commodity groups, of all countries to which Australian exports of these commodities are significant.

The final chapter (Chapter 6) suggests some conclusions which can be drawn from the main lines of development in Australia's exports of finished manufactures over the decade under survey.

IV MAIN FINDINGS

1. DIRECTION AND COMPOSITION OF AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES

Direction

Australia's exports of finished manufactures at the beginning of the period under survey (1954/5-1955/6) were mainly destined for countries in the nearby Oceanian area (Chapter 3). The most important change which occurred over the subsequent decade in the direction of Australia's exports of finished manufactures was the continuous diversification away from these traditional markets. The share of these commodities destined for New Zealand declined from 42 per cent in 1954/5-1955/6 to 36 per cent in 1963/4-1964/5 and the share destined for the Oceanian Islands from 25 per cent to 17 per cent. The share of 'other' primary-producing countries (of which countries in Asia were the most important) increased from 24 to 33 per cent over the same period and that of the industrial countries (of which the United Kingdom remained the largest single market) from 9 to 14 per cent.

This diversification was occurring despite the average growth of 10·5per cent a year in Australia's exports of finished manufactures to the Oceanian area over this period (1954/5 to 1964/5). The growth in Australia's exports of finished manufactures averaged an annual rate of 17·5per cent to 'other' primary-producing countries and 18·3per cent to the industrial countries.

Composition

Marked changes also occurred in the composition of Australia's exports of finished manufactures over the decade. The most notable feature was the exceptionally rapid and sustained growth (at an average of 22 per cent a year) in the export of the category passenger cars and motor vehicle parts, which increased its share of Australia's exports of finished manufactures from 12 per cent to 25 per cent over the period 1954/5-1955/6 to 1963/4-1964/5. The shares of capital goods declined from 44 per cent to 37 per cent and of 'other' finished manufactures from 29 per cent to 23 per cent. The share of consumer manufactures remained constant at 15 per cent.

Composition and Direction

There are considerable differences between the types of Australian finished manufactures exported to the primary-producing countries and to the industrial countries. The outstanding feature revealed in the analysis in Chapter 3 is the existence of a dual structure in Australia's exports of finished manufactures. Exports to the industrial countries contain a much higher percentage of consumer manufactures than those destined for the primary-producing countries. Furthermore despite their small share in Australia's total exports of finished manufactures, the industrial countries are emerging as the best customers for Australia's finished consumer manufactures. Their share of Australia's exports of finished consumer manufactures rose consistently during the decade and by 1963/4-1964/5 had reached 37 per cent compared with 20 per cent in 1954/5-1955/6. The share of durable consumer goods destined for industrial countries had reached 47 per cent by 1963/4-1964/5 compared with 27 per cent in the earlier period.

The composition of imports into New Zealand and into many of the 'other' primary-producing countries has been strongly influenced by severe import licensing restrictions which discriminate against commodities

(particularly consumer manufactures) which can be manufactured locally. The principal difference between the composition of Australia's exports of finished manufactures destined for New Zealand and those destined for 'other' primary-producing countries is the much higher proportion of component parts exported to New Zealand. The category passenger cars and motor vehicle parts (the most important single category) is composed mainly of components for assembly in New Zealand. Capital goods (particularly machinery and equipment for the mining, construction, agricultural and communications industries) form the main category of finished manufactures exported to 'other' primary-producing countries.

The Oceanian Islands, with limited manufacturing capacity and freedom from import licensing restrictions import a wide range of their domestic requirements of finished manufactures. The largest export category is capital goods, particularly food processing machinery and construction and railway equipment. Non-durable consumer manufactures, consisting of basic household requirements (e.g. toilet soaps and clothing) are more important in the composition of Australia's exports of finished manufactures to the Oceanian Islands than in the exports to the other areas.

2. AUSTRALIA'S EXPORT PERFORMANCE IN FINISHED MANUFACTURES

Australia's exports of finished manufactures increased at an average rate of 13.3 per cent a year over the period 1954/5 to 1964/5 compared with an average rate of 9.2 per cent a year in 'world' exports of finished manufactures: Out of ten major industrial countries only Japan and Italy increased their exports of finished manufactures at average rates in excess of 13.3 per cent a year. However the exports of finished manufactures of most of the remaining industrial countries increased at rates not strikingly below 13.3 per cent. Only the United States and the United Kingdom recorded particularly slow rates of growth in their exports of these commodities.

Australia's exports of finished manufactures fluctuate more widely than those of the major industrial countries. This appears to be due to Australia's dependence on primary-producing countries as markets for finished manufactures: The ability of these countries to import finished manufactures fluctuates considerably from year to year depending on the level of their export earnings.

The divergence in growth rates between Australian and 'world' exports of finished manufactures was particularly marked during the final upswing in world commodity trade in 1962/3, 1963/4 and 1964/5. Australia's exports of finished manufactures in these years increased by 24 per cent, 40 per cent and 19 per cent respectively. At this time 'world' exports of finished manufactures were growing by no more than 13 per cent a year. The cumulative

growth in Australia's exports of finished manufactures in this last upswing was much greater than in previous upswings in the period. The rate of growth in Australia's exports of finished manufactures increased from an annual average of 11.0 per cent between 1954/5 and 1960/1 to 18.8 per cent between 1959/60 and 1964/5.

The trade statistics examined in Chapter 4 suggest that an important factor in the strength of the final upswing in Australia's exports of finished manufactures was the rapid, sustained recovery in demand for imports by some of Australia's major markets (particularly New Zealand, Papua and New Guinea, Fiji and South Africa). While special factors in each country contributed to this acceleration in demand for imports, the major permissive factor was the absence of a general downturn in export prices of primary products.

Yet the results of an examination of the changes in 'world' imports of finished manufactures and of the imports of finished manufactures of all countries to which Australia exports finished manufactures suggest that this unusual period of prosperity in Australia's markets does not explain the great difference between the growth rates in Australia's exports and 'world' exports of these commodities during the later period: imports into 'Australia's' markets did not increase over the period 1959/60-1960/1 to 1963/4-1964/5 at a faster rate than 'world' imports.

Rather, the results suggest that during the earlier period (i.e. 1954/5 to 1960/1) Australia had been at a disadvantage in exporting a high proportion of its exports of finished manufactures to markets which were 'slow-growing' (i.e. in relation to 'world' imports). Apparently in the last few years of the period under survey this disadvantage was removed.

Yet there is also evidence to suggest that there were other, probably domestic, forces at work to improve Australia's export performance over the later period. There was an upswing in Australia's exports to the majority of countries of destination and in the majority of categories of finished manufactures. Moreover, although not comprehensively investigated in this study, it appears that the acceleration in the growth of Australia's exports of many types of finished manufactures in the later period was due to the commencement of exporting by many firms which had previously only marketed their products in the domestic market or in the Oceanian area. The introduction by the Australian Government of export incentives legislation in 1961 probably was a major factor in inducing this upsurge. Other influences operating at the same time which may have contributed include the recession in domestic demand in 1961 which increased the relative profitability of exporting for firms and (by reducing the annual rate of domestic price increases) may have improved the Australian manufacturers' ability to compete on world markets.

CHAPTER 2

SCOPE, DEFINITIONS AND SOURCES

The aim of this study is to examine the performance of Australian manufacturing industry in competing on overseas markets. In determining the range of commodities to be included in the study two main considerations were borne in mind. First, a wide range of commodities have been subjected to some degree of manufacturing, if only in the final stage of the production process and an abritrary criterion must be adopted to demarcate between 'manufactures' and 'non-manufactures'.[1]

Secondly, it was preferable to choose a narrow range of commodities rather than a wide range in view of the amount of routine statistical work required to compile the raw data into summary tables suitable for analysis. Moreover both the construction of commodity classifications and the interpretation of the results

---

1. See, for example, Department of Trade and Industry, Australia: Exports of Manufactures 1964/65, prepared by the Central Statistical Unit (Canberra) 1965, p.1.

of the compilations require a certain amount of knowledge of each of the export commodities and, to a certain extent, of the nature of the export transaction itself. For instance, in examining the exports of earthmoving and excavating equipment to India in a particular year it is desirable to determine whether the export was the result of (a) a sale made in open competition against world competition; (b) an export of component parts for further assembly, or (b) the export of equipment to an associate company temporarily unable to fulfil an urgent order. These are but three possible alternative types of transaction, each of which gives the item a different significance. Thus it was preferable to choose a narrow range of commodities which best reflected the ability of Australian manufacturing industry to compete overseas.

Bearing these factors in mind we shall examine various definitions of manufactured exports and discuss their suitability for the purposes of this study.

I DEFINITIONS OF MANUFACTURED EXPORTS

1 FACTORY OUTPUT

The output of all factories can be considered as manufactured in the sense that the manufacturing process is responsible for changing the character of the

commodities to their final form. Australian export statistics have accordingly been compiled at various times with a coverage similar to that of the output of factories.[2] Commodities selected by this definition include processed primary products such as butter, cheese and scoured wool. Australia's exports of factory products so defined amount to 36 per cent of total merchandise exports in 1962/3.

2. MANUFACTURES

Commonwealth Statistician's definition

A more restricted definition of manufactures now commonly used in Australian export statistics is based on the Commonwealth Statistician's analysis of exports by industry of origin.[3] This analysis classifies Australian exports into four groups - Unprocessed Primary Products, Processed Primary Products, Manufactures, and Refined Petroleum Oils. The criterion used in allocating items is the ratio of value added by the manufacturing process to the value of the raw material. An item for which the value added by

---

2. See for example Department of Trade, "Secondary Industries Build Export Income" Overseas Trading (Melbourne), 12 June, 1957, p.193.

3. Published annually in the Official Yearbook of the Commonwealth of Australia (Canberra: Commonwealth Government Printer). See for instance the 1961 Year Book No. 47, p.508.

the manufacturing process is low or nil is deemed an 'unprocessed primary product'. If the value added is above a certain ratio the item is deemed a 'processed primary product' and if it is above the set maximum for a processed primary product, the item is deemed a 'manufacture'.

Thus using the Commonwealth Statistician's criterion of value added by manufacturing, many factory products are designated processed primary products. Commodities deemed to be manufactures include textiles, pigments, paints, metal manufactures (including metal shapes but not wrought metals), machinery, paper, chemicals, and a wide variety of miscellaneous manufactures, including selected food, drink and tobacco items.

Department of Trade and Industry's definition

The Department of Trade and Industry in its annual statistical publication Australia: Exports of Manufactures[4] closely follows the Commonwealth Statistician's designation of products set down for the analysis of exports by industry of origin. The principal exception is that whereas the Statistician

---

4. Department of Trade and Industry Australia: Exports of Manufactures. Prepared by Central Statistical Unit, Canberra. Annual volumes.

shows refined petroleum in a separate category, it is included by the Department of Trade and Industry as a manufacture.

Internationally accepted definitions

A definition commonly used in overseas studies is based on the United Nations Standard International Trade Classification (S.I.T.C.)[5] While no single criteria is followed in the construction of the S.I.T.C., Sections 0 to 4 of the classification broadly cover unprocessed and crudely processed primary products. The items within Sections 5 to 8 broadly correspond to those included in the manufactures group in the classification used by the Department of Trade and Industry. The main differences between the definitions are that S.I.T.C. Sections 5 to 8 include unwrought metals and the Department of Trade and Industry classification includes petroleum oils and selected food, drink and tobacco items. In 1962 Australia's exports of manufactures defined according to the criterion used by the Department of Trade and Industry accounted for 13 per cent of total merchandise exports. Australia's exports of commodities included

---

5. See, for example, A. Maizels, Industrial Growth and World Trade (Cambridge: Cambridge University Press), 1963, p.421.

in S.I.T.C. Sections 5 to 8 in 1962 accounted for 14 per cent of total merchandise exports.[6]

3. FINISHED MANUFACTURES

Reasons for rejecting the above definitions of manufactures

Each of the above definitions includes a wide range of semi-manufactures, many of which depend on the abundance and quality of natural resource endowments for their competitiveness in world trade rather than on the possession of a widely based manufacturing industry. As the manufacturing content of many of these products is slight their ability to compete on world markets is only marginally affected by the efficiency of the manufacturing industry responsible for the final processing. This is particularly true of the classification 'factory output' which includes such lightly processed products as scoured wool and dairy products. However it is also true of the other definitions outlined above. The Department of Trade definition includes simply processed metal shapes, tanning materials, essential oils, dressed leather, second-hand items such as iron and steel scrap

---

6. A variation used overseas excludes the base metals categories from S.I.T.C. Sections 5 to 8. In 1962 Australian exports by this definition accounted for 11 per cent of total merchandise exports. For example see United Nations, Trade and Development: Trade in Manufactures, (New York), 1964, p.4. footnote (a) to Table 1.

and waste textile rags and such by-products as casein and residual fuels. When the detail of Australia's exports of manufactures to individual countries is examined the irrelevance for the objectives of this study of much of the exports becomes apparent. For example, Australia's exports of manufactures to Japan in 1962/3 by the definition used by the Department of Trade included the following commodities out of a total amounting to £8,558,000:- Furnace fuel, £3,100,000; Scrap iron and steel, £2,200,000; Casein, £640,000; and waste rags, £77,000.

It has been shown that countries can develop large overseas markets for moderately processed commodities without possessing a competitive industrial structure. This characteristic was noted by Maizels when commenting on the high share of manufactures (i.e. S.I.T.C. Sections 5 to 8) in the exports of Chile, the Congo and Mexico: "The export of manufactures does not necessarily reflect ..... an economic transformation of the economy through the establishment of a large scale base of manufacturing production. There are many primary-producing countries whose manufactured exports consist mainly of the first stages of processing locally produced agricultural commodities or minerals".[7]

---

7. A. Maizels, op. cit., pp.57,58.

As Maizels observed, it is not easy to devise an accurate method to separate the simply processed goods from those more elaborately processed. However he believed that "a much more accurate picture of the incidence of industrialization" could be obtained by excluding intermediate products from the definition of exports of manufactures.[8] The criterion used by Maizels to identify the highly processed commodities was whether the manufactures needed further processing. A commodity which required further processing before final use was deemed an intermediate product. All other manufactures were deemed finished manufactures.

The criterion of whether or not the manufacturing process of a product is "finished" appears to satisfy the requirements of the present study. It excludes the simply processed commodities. It also restricts the number of export items to a manageable level. Accordingly this study is restricted to non-food finished manufactured commodities.

---

8. A. Maizels, Op. cit., p.58.

II CLASSIFICATIONS OF FINISHED MANUFACTURES

Having chosen a definition which would demarcate finished manufactures from other export commodities it was then necessary to select an appropriate commodity classification. It was desirable that the classification would serve both (1) in a study of the relationship between the economic use of commodities exported from Australia and the stage of development of the country of destination; and (2) in a comparison of trends in Australian and world trade in finished manufactures.

However it was found that no single classification would satisfy both these aims. The first aim required a classification based on economic use principles especially constructed from the selected items of the Australian Export Classification. The second aim required a classification for which statistics on world trade (or its equivalent) were available. The only classification in widespread use overseas in the compilation of trade statistics is the Standard International Trade Classification (S.I.T.C.) which cannot be reconciled

with economic use principles.[9]

Consequently, it was necessary to compile the Australian export statistics into two separate classifications; one based on economic use principles and the other on the Standard International Trade Classification.

I ECONOMIC USE CLASSIFICATION[10]

The need

In official trade statistics, manufactured commodities tend to be classified under headings related to industries of origin rather than to their economic use.[11]

---

9. At one time G.A.T.T. studies made a distinction between capital and consumer goods in manufactured exports by using broad S.I.T.C. groups (See, for instance, International Trade 1957-58, The Contracting Parties to the General Agreement on Tariffs and Trade, (Geneva), July 1959 p.312). However the consumer category is no longer used in G.A.T.T. annual reviews probably because of the difficulties in reconciling the content of S.I.T.C. groups with economic use principles. The consumer goods category had included, for instance, scientific instruments, office furniture and plumbing equipment.

10. The following discussion which refers to principles of classification benefitted greatly from a study of the paper by M.J.S. Clifton, "Commodity Classification Concepts in Analysis of Production and Trade" presented to Section G, Australian and New Zealand Association for the Advancement of Science, Canberra, January, 1964.

11. See, for example, comments made by M.J.S. Clifton, Ibid., p.10.

Economic categories are not always considered relevant even in academic studies. Tyszynski considered that a division into capital and consumer goods was not particularly relevant: He believed that the gradual change in favour of capital goods in the output of countries which were developing their manufacturing capacity can well be explained by differences in 'capital intensity' and in the 'skill ratio' between particular industries.[12] However, the purpose of this study is not to examine the relationship between the structure of the Australian manufacturing industry and its exports but between the commodity structure of Australian exports of (finished) manufactures and the structure of demand in overseas countries.

The structure of a country's imports is related to its stage of development in a number of ways. Imports of consumer goods are strictly controlled in many developing countries in order to conserve foreign exchange for the import of capital goods. The effect of import controls is re-inforced by the process of industrialization which normally begins with import replacement, first in non-durable consumer goods, then in durable consumer and capital goods.[13]

---

12. H. Tyszynski, "World Trade in Manufactured Commodities 1899-1950", The Manchester School of Economics and Social Studies, XIX, NO.3 September, 1951, pp.275-276.

13. United Nations, World Economic Survey 1961, (New York), 1962, p.34.

Furthermore, the positive relationship which exists between the average level of income of a country and ownership of consumer durables per head of population[14] would suggest that the imports of developed countries would favour durable consumer goods more so than the developing countries.

Consequently it was desirable to adopt a commodity classification based on economic use principles to assess the extent to which the structure of Australia's exports of finished manufactures destined for groups of countries at various stages of development conformed to what one would expect a priori.

Selection of items

The selection of items to be included as finished manufactures for the classification by economic use principles was considerably aided by the release of a "Draft Australian Standard Commodity Classification" at the time the study was being commenced.[15] The

---

14. A. Maizels, Op. cit., pp.309-315.

15. Department of Census and Statistics, "Australian Standard Commodity Classification", Unpublished draft. This classification was subsequently rejected as the principal classification for Australian export statistics in favour of the Standard International Trade Classification.

proposed classification (hereinafter called "the draft") contained a section relating to finished manufactures. The draft included a key which related the proposed new items to the existing Australian export classification.

The draft classification consists in its entirety of four sections: Live Animals; Food, Beverages and Tobacco; Materials, Inedible; and Finished Goods, Inedible. The criterion used to allocate commodities to the latter two categories was the same as that used by Maizels - the stage of production reached. The category Materials, Inedible therefore consists of "inedible commodities to which further manufacturing must be applied before they are ready for final use".[16] The category Finished Goods, Inedible refers to those commodities "to which further manufacturing processes are not applied".[17]

Both the draft and Maizels' classifications[18] of finished manufactures cover broadly the same commodities. The most important categories are machinery, electrical and communication equipment, motor vehicles, metal manufactures, drugs, clothing and a wide range of

---

16. Ibid., p.2.

17. Ibid., p.3.

18. For details of the classification used by Maizels see Op. cit., pp.58, 60, and Appendix D pp.517, 518.

miscellaneous manufactures. However, as the draft classification related specifically to many existing items in the Australian Export Classification, it proved more helpful than Maizels' classification in selecting those items which were to be included in this study as finished manufactures.

Parts and components of durable goods have been included with finished manufactures in this study, following the practice in the draft and by Maizels. Conceptually parts are not finished until embodied in a complete article butmany have a high degree of manufacture. Furthermore, in the earlier years of the period under survey the value of exports of parts of many commodities were not shown separately from the complete products in the Australian Export Classification. Consequently for these products it was necessary to add together the value of exports of parts to the relevant complete products in later years in order to maintain comparability throughout the period.

While the commodities included in this study were based on those included in the fourth section of the draft, there are some differences in detail. Books and periodicals, exposed film and gramophone records were excluded in this study as they owe their main

attraction for overseas buyers to the work of Australian artists and writers which they contain rather than to the competitiveness of the Australian manufacturing sector. Secondhand items such as waste textile materials and bags and sacks were also excluded. Extraneous items of this nature amount to a considerable value in Australia's export statistics: Exports of the abovementioned items accounted for £3.6m. in 1963/4 compared with a value of £59.7m. for the commodities included in this study as finished manufactures classified by economic use.

Other decisions were made following an examination of material extracted from export warrants available in the Department of Trade and Industry. Thus Australian exports under the items Wood Manufactures n.e.i. and Leather Manufactures n.e.i. were found to consist mainly of moderately processed shapes and so were excluded. The item Rubber Manufactures n.e.i. was retained as it included mainly finished manufactures (for example gloves, balloons and hot water bottles).

Selected building materials - notably louvre windows, window frames, nuts, bolts and screws - were included as finished manufactures in this study whereas they were excluded in the draft. While these materials are to be embodied in a complete building (and so could

be considered 'unfinished') it was decided to include them as they have reached a stage of manufacture similar to parts of machinery (which have been included as finished manufactures). The decision was arbitrary, however.

This study followed the draft in excluding certain items which had been included in Maizel's classification of finished manufactures. These were principally fertilizers, paints, explosives and textile fabrics.

In all, out of a total of approximately 1,300 items in the 1964/5 Australian Export Classification, 400 were deemed finished manufactures. In view of the many changes in statistical detail over the period 1954/5 to 1964/5 it was necessary to trace back the history of each item for each year to ensure that the coverage of finished manufactures remained constant over the entire period. The 400 items were traced back to 236 parent items in the 1954/5 Australian Export Classification.

Allocation of items into economic use categories

The nature of each of the 236 parent items of finished manufactures was examined in order to determine whether it was predominantly for use by producers (and hence a capital good) or by consumers (and hence a consumer good). The classification adopted consists of four

principal categories - Capital Goods, Consumer Goods (with Durable and Non-durable categories), Passenger Cars and Motor Vehicle Parts, and Other Finished Manufactures.

(i) Capital and consumer goods

Many of the selected items were readily allocated to either the capital or the consumer goods categories. For instance earthmoving equipment and metal working machinery clearly are capital goods, whereas golf clubs, household machines and toys are consumer goods. However there are many items which, by description alone, could include either or both domestic or producer goods. These included lawn mowers, refrigerators, electric fans and sewing and stitching machinery. For these items, a decision was made from knowledge of the importance of capital and consumer goods exported from Australia under each item. To take the example of refrigerators: although there are some exports of commercial refrigerators, most are exported for household use and consequently the item was classified as a consumer good.

There was a difficulty in allocating parts and components of durable consumer goods to their correct economic use category. Although strictly for direct use by producers and hence could be deemed capital goods,

these parts and components were grouped with the complete products as they are close substitutes with complete products in world trade. Furthermore, parts for many items were not shown separately from the complete articles in the Australian Export Classification in the early years of the period under survey.

As only items which consisted predominantly of consumer goods were included in the consumer goods category, the value of exports of finished consumer goods is understated in this study. Many consumer goods are included in items which have been classified as Other Finished Manufactures. Some instances are: domestic furniture (not shown in the Australian export statistics separately from other types of furniture until 1961/2); rubber household gloves (included in the item Rubber Manufactures n.e.i.); and all film and still cameras (included in the item Sensitized Film n.e.i.). Similarly some parts for durable consumer goods are not separately identified in the export statistics and could not be regrouped under a consumer goods category. For example components for domestic radio and television receivers are included under capital goods in various items in the communications and electrical categories. Nevertheless the consumer goods category probably contains a very high proportion of consumer goods coming within the definition of finished manufactures.

Similarly, due to the difficulty of identifying the content of some items from the item description the capital goods category contains some consumer goods (e.g., as noted above, parts for television receivers) and some capital goods are included in items classified elsewhere. However these anomalies would not be sufficient to distort any conclusions made in this study.

(ii) Passenger cars and motor vehicle parts

It was found necessary to create a separate category for passenger cars and motor vehicle parts. To be consistent with the treatment accorded other durable goods and their parts, passenger cars together with motor vehicle parts and components should have been included with durable consumer goods as, first, passenger cars are mainly for use by private users and, secondly, motor vehicle parts and components are mainly components for assembly into complete passenger cars. However it was decided that this procedure would be untenable as parts and components are not strictly consumer goods and in view of the very large value of Australia's exports of motor vehicle parts and components which, in 1964/5 amounted to more than two and one-half times Australia's total exports of consumer goods.

(iii) Other Finished Manufactures

About one-quarter (by value) of Australia's exports of finished manufactures could not be allocated to either of the three abovementioned groups. This is a large 'miscellaneous' category but it was considered of prime importance that generalizations based on trends in Australia's exports of capital and consumer goods should not be distorted by the inclusion of commodities which did not clearly belong in one group or the other.

Sub-categories

Within the four main categories discussed above 56 sub-groups were used. These are listed in Appendix A2. An attempt was made to group together items which were reasonably homogeneous in terms of use. For example, the sub-group 'Kitchen Utensils, cutlery etc.' contains cutlery, crockery and plastic foodcovers which in the Australian Export Classification are classified according to their material of origin (viz. metal, earthenware and plastics respectively).

The value of the exports to each country of destination for each of the 11 years 1954/5 to 1964/5 were tabulated into these 56 sub-groups. These tables provided the basic working sheets from which summary sheets at higher levels of aggregation were prepared.

2. STANDARD INTERNATIONAL TRADE CLASSIFICATION

The second classification of finished manufactures used in this study was based on the United Nations original (1950) Standard International Trade Classification (S.I.T.C.). This classification is widely used in the classification of international trade statistics and is consequently the most suitable framework in which to compare trends in Australian exports and world trade.

Deficiencies of the S.I.T.C.

The S.I.T.C. was not adopted as the sole classification for use in this study as it is not ideally suitable for analytical purposes. The principal objection is that no consistent distinction is made between capital and consumer goods.[19] Furthermore, the individual commodity groups of the S.I.T.C., group together items which are heterogeneous in terms of use. For instance, the engines of all vehicles (e.g. aircraft, passenger cars and marine) are classified in one group together with boilers and stationary engines. Yet the export of, say, motor vehicle engines is more closely associated with the export of complete motor vehicles or

---

19. See above, pp.26-27

with other motor vehicle parts than with engines designed to power completely different types of vehicles or stationary machinery.[20]

Selection of SITC groups as 'finished manufactures'

The original (1950) SITC consists of 150 three-digit groups. These groups, which are at the level of aggregation most frequently used in trade analysis,[21] are assembled into 10 sections. Sections 0- 4 correspond approximately with primary products and sections 5- 8 with manufactures (intermediate and finished). Section 9 contains miscellaneous items.

Of the 150 original SITC groups, 28 were selected as consisting predominantly of finished manufactures. Two of these groups (agricultural machinery and tractors, SITC numerical codes 712 and 713) were grouped together to follow a change in the SITC, Revised introduced in 1960. A list of 26 of these 27 groups are shown in Table 4.2 page 134. One group (plumbing, heating and lighting fixtures 812) is not shown in that table. These 28 groups correspond to 57 groups in the SITC, Revised. The equivalent items in the Australian Export Classification were selected by the use of a key code used by the Bureau of Census and Statistics in reporting Australian export statistics to the United Nations. While the items thus selected are

20. In the classification of Australia's exports of finished manufactures by economic use all motor vehicle parts (including engines, chassis, tyres, and sparking plugs) are grouped together with passenger cars.
21. United Nations, Standard International Trade Classification, p.vii.

broadly the same as the items chosen as finished manufactures for the classification by economic use, there are some differences in coverage.

Some of the S.I.T.C. groups which were deemed to consist predominantly of finished manufactured items contained items which had not been included in the economic use classification. These were, notably, metal containers for storage and transport, structural steelwork, metal wires, works of art and gramophone records. Similarly, some items which were deemed to be finished manufactures when examined individually for the economic use classification were excluded from the classification based on S.I.T.C. groups because the appropriate S.I.T.C. group contained items which were mainly not finished manufactures.

Australian exports of finished manufactures classified by S.I.T.C. groups consisted of 231 parent items valued at £73.8m. in 1964/5 compared with 236 parent items valued at £70.9m. in the same year in the classification by economic use principles.[22]

---

22. For the calculations which form the basis of Chapter 5, Australia's exports of finished manufactures included in the economic use classification were reclassified into S.I.T.C. groups and the difference in coverage ignored. The reasons for doing so are discussed in Chapter 5, pp. 188.

Problems in matching items in the S.I.T.C. with items in the Australian Export Classification

Individual statistical items in the Australian Export Classification were not originally defined to agree with the definitions used for the S.I.T.C. Any one Australian export item may include commodities which should correctly be allocated between two or more S.I.T.C. groups. Hence, each item must be classified under the S.I.T.C. group which is the most appropriate and the differences in coverage ignored. However, with these faults, Australian export statistics have been reported to the United Nations each year since 1952, using a key code appropriate for the export classifications in use each year.

III ADJUSTMENTS TO RECORDED VALUES

Having designated those items in the Australian Export Classification which accord with the definition of finished manufactures, there was the further task of excluding the value of certain types of shipments which do not reflect the ability of Australian manufacturers to compete overseas. These are re-exports, merchandise aid and second-hand ships.

1. RE-EXPORTS

Re-exports represent about 10 per cent of the value of Australia's exports of finished manufactures. As these commodities are normally the produce of overseas industries, it was highly desirable to exclude them from this study. Their inclusion would significantly distort the pattern of Australia's exports of finished manufactures as, while some re-exports are found under most export items, they are particularly important in Australia's exports to the developed countries in certain items (e.g. aircraft).

For most of the years 1954/5 to 1964/5, the value of re-exports was included in the Australian Export Bulletins[23] with the value of Australian produce exported to each country. Although re-exports were, in addition, listed separately, it was necessary to subtract the value of the re-exports from the value of exports of each item affected.

2. AID SHIPMENTS

Shipments under the Australian Government's aid programmes (mainly Colombo Plan but also SEATO, SCAAP and

---

23. See below, p. 49, for details of the use which this study made of these Bulletins as statistical sources.

other minor programmes), while not great in total value (about £2m. a year on the average) (see Table 2.1) are heavily concentrated in a narrow group of capital goods and a small number of Asian destinations. They also fluctuate widely from year to year. These shipments partly obscure the underlying pattern of our exports, and make generalisations difficult on the trends in Australia's exports to developing countries. The problem is similar but not quite as difficult as that facing analysts of U.S. exports which include large military and special category shipments.[24]

Although exports under aid grants are not identified in the trade statistics it has been possible with the aid of a variety of official and unofficial sources to identify the most important aid shipments.

The most useful indications of aid shipments were gained from the Colombo Plan annual reports[25] which list aid by major commodities or projects and by donor and recipient countries. Expenditure data published in this source however cannot be matched

---

24. See, for example, Anne Romanis, "Relative Growth of Exports of Manufactures of United States and Other Industrial Countries", International Monetary Fund Staff Papers, VIII, May, 1961, pp. 246 and 247.

25. Consultative Committee of the Colombo Plan, Annual Reports.

precisely with recorded export figures. The principal reasons are:- (a) there are frequently lags between the year in which expenditure is incurred and the year in which export is recorded: (2) Freight charges are excluded from the value of exports, but are included in aid expenditure figures: (3) The headings under which expenditure is recorded are frequently broad in relation to the export items being verified. A not unusual expenditure heading would be: "Burma: Farm Equipment", which could cover a wide range of export items from hand shovels to tractors. Nevertheless, while these expenditure figures lacked exact comparability with export statistics they proved the most important single source of guidance on identifying aid shipments.

Additional detailed information on a limited number of projects was obtained by examination of files held in the Department of Trade and Industry on the Colombo Plan and from back issues of export journals such as Austral News, Overseas Trading and Australian Trader. These journals also helped to identify shipments which were definitely exported under commercial terms.

So from these various sources it was possible to identify the value of most of the items exported to individual countries in any one year as either an aid or a commercial

shipment. For some items there was evidence that both commercial and aid shipments were included and the value of the item was allocated between the two. Undoubtedly some errors have been made in these adjustments due to the imprecise information on which they were based, but major aid shipments have been excluded and the broad aggregates used in this study fairly accurately portray trends in non-aid exports. Less reliance, however, can be placed on trends in exports to some individual countries to which aid shipments in some years have been large in relation to commercial exports. These countries are principally India, Ceylon and Pakistan.

While, as mentioned above, the exclusion of aid shipments from the statistics used in the description of the composition and direction of Australia's exports of finished manufactures (Chapter 3) is considered essential, the necessity for excluding aid when comparing the trends in Australian and world trade in finished manufactures (Chapters 4 and 5) is less certain. Excluding aid shipments from Australia's exports introduces some distortion as the trade statistics with which the comparisons are being made include aid of all types, (including military). Australia's aid in the form of finished manufactures has not grown in absolute terms over the period 1954/5 to 1964/5 and (with the growth of non-aid exports over the period) represented only about 2 - 3 per

cent of Australia's exports of finished manufactures at the conclusion of the period compared with about 10 per cent in the initial years. (See Table 1.1). The growth rates over the period of Australia's exports of finished manufactures including aid are thus less than the rates used in the body of this study and, assuming that the aid component of world trade in finished manufactures has remained at a constant percentage, the Australian export performance in finished manufactures is overstated. The overstatement would be insufficient, however, to invalidate the conclusions which have been drawn from these comparisons. A footnote in Chapter 4 gives the growth rate in Australia's exports of finished manufactures including aid.[26]

3. SECOND-HAND SHIPS

Exports of second-hand ships for breaking up have been excluded from the series of Australian exports of finished manufactures as they do not reflect the ability of Australian manufacturing industry to compete overseas. These ships were readily identified in the Australian statistics, as exports of new vessels are

---

26. Page 126.

Table 2.1. AUSTRALIA: TOTAL RECORDED EXPORTS OF FINISHED MANUFACTURES BY TWO DEFINITIONS, SHOWING ADJUSTMENTS FOR AID SHIPMENTS AND SECONDHAND SHIPS, 1954/5 to 1964/5

£A million

	Recorded exports, Australian produce[a]		Adjustments		Adjusted exports	
	(1) Classified by economic use[b]	(2) Classified by SITC groups[c]	(3) Aid shipments (approximate)	(4) Secondhand ships (approximate)	(5) Classified by economic use[b]	(6) Classified by SITC groups[c]
1954/5	21.5	22.6	2.3	-	19.2	20.3
1955/6	20.6	21.5	1.6	0.2	19.1	19.8
1956/7	27.2	28.8	3.2	1.2	22.7	24.4
1957/8	30.5	32.3	3.3	0.1	27.0	28.9
1958/9	26.1	27.6	1.9	-	24.1	25.7
1959/60	30.2	32.1	1.8	0.2	28.2	30.1
1960/1	39.6	41.5	1.2	0.5	37.8	39.9
1961/2	35.8	37.8	1.3	0.8	33.4	35.7
1962/3	45.5	47.9	2.9	0.6	41.8	44.4
1963/4	61.5	63.8	1.6	0.1	59.7	62.1
1964/5	73.1	76.0	2.0	0.2	70.9	73.8

Sources:

Columns (1) and (2) :- Commonwealth Bureau of Census and Statistics, Overseas Trade Bulletins

Column (3) :- Estimates based on data contained in Consultative Committee of the Colombo Plan, Annual Reports; Export and Journals; and records held in Commonwealth Department of Trade and Industry, Canberra.

Column (4) :- Estimates based on inspection of export statistics. Large value exports to Hong Kong, Japan and various industrial countries were deemed 'secondhand' ships.

(a) i.e., excluding re-exports

(b) As used throughout Chapter 3 : Consists of 236 items of the 1954/5 export statistical classification of the Commonwealth of Australia which were deemed 'finished manufactures' for the purpose of analysing trends in the commodity composition of Australia's exports of finished manufactures

(c) As used throughout Chapter 4. Consists of 231 items of the 1954/5 export statistical classification of the Commonwealth of Australia which corresponded to 29 commodity groups of the Original (1950) Standard International Trade Classification deemed 'finished manufactures' for the purpose of comparing trends in Australian and 'world' exports of finished manufactures.

mainly limited to the sale of small vessels to the Oceanian Islands. Second-hand ships on the other hand are usually destined for the breaking-up yards of Hong Kong or Japan and have a very high unit value.

World trade statistics include ships for breaking up and to that extent are not comparable with the Australian series used in this study. However more serious distortions would result if exports of all ships were included in the Australian export statistics as the value of second-hand ships in many years of the period greatly exceeds the value of new vessels. Moreover, as can be seen from Table 2.1, the value of exports of second-hand ships fluctuates widely from year to year.

I V STATISTICAL SOURCES

The statistics used for the various calculations on trade in finished manufactures which form the basis of this study were extracted from a number of primary sources. The sources are described below under the three main statistical series on trade in finished manufactures used in this study:- Australian exports, 1954/5 to 1964/5; 'world' trade 1954 to 1964; and imports into overseas countries.

1. SERIES ON AUSTRALIAN EXPORTS OF FINISHED MANUFACTURES

As described above, the various analyses in this study on Australia's exports of finished manufactures are based on two series of statistics for the years 1954/5 to 1964/5. One series is classified by economic use while the other (with a coverage similar to the first) is classified by S.I.T.C. groups. The statistics for both these series were obtained from publications issued by the Commonwealth Bureau of Census and Statistics.

Economic Use Classification

The statistics for the series classified by economic use were extracted from the annual volumes of Australian Exports,[27] which record the value of Australia's exports of each item in the Australian Export Classification under individual countries of destination. The values of the items designated as finished manufactures were compiled into 56 sub-groups cross-classified by country of destination.

Standard International Trade Classification

The other statistical series on Australia's exports of finished manufactures over the period 1954/5

---

27. Commonwealth Bureau of Census and Statistics Australian Exports, (Canberra), Annual Volumes.

to 1964/5 was extracted from the annual Overseas Trade Bulletins[28] which record, inter alia, the value of total exports under each item. The value of total exports under the relevant items were compiled into the 28 selected S.I.T.C. Groups.

2. SERIES ON 'WORLD' TRADE IN FINISHED MANUFACTURES

The value of exports of each of the designated 28 S.I.T.C. groups for each of the ten major industrial countries selected as representative of 'world' trade in finished manufactures was extracted from the annual volumes of the United Nations Commodity Trade Statistics Series "D".[29].

3. SERIES ON IMPORTS OF FINISHED MANUFACTURES INTO OVERSEAS COUNTRIES

Comparisons were made between Australia's exports of finished manufactures and imports of these commodities into individual overseas countries for two purposes:- to compare fluctuations in Australian exports and the

---

28. Commonwealth Bureau of Census and Statistics Overseas Trade, (Canberra), Annual Volumes

29. United Nations, Commodity Trade Statistics Series "D" Annual Volumes.

imports of overseas countries between 1954/5 to 1964/5 and to compare the growth in Australia's exports with the growth in the imports of overseas countries between the periods 1959/60 - 1960/1 to 1963/4 - 1964/5.

Fluctuations 1954/5 to 1964/5

Fluctuations in Australian exports and in imports of Australia's main markets are compared in Chapter 4. For this purpose, total imports of finished manufactures were extracted from various issues of the United Nations Yearbook of International Trade Statistics which provides total value of imports by importing countries, classified by main commodities. The commodity classification used for imports into the selected countries is the original S.I.T.C. However for most countries it was not possible to select only the 28 S.I.T.C. groups designated as finished manufactures. For instance, sufficient detail is not provided in the Yearbooks to identify for most countries the 13 particular groups in S.I.T.C. Section 8 (Miscellaneous Manufactures) which are deemed finished manufactures. For these countries the value of imports under the total 18 groups of Section 8 were taken to represent the 13 designated groups.[30] However as these

---

30. Extraneous miscellaneous commodity groups included in imports for these countries are mainly developed cinematic film (Group 863), printed matter (892) and jewellery (897).

statistics were extracted to indicate trends in the imports of finished manufactures of these countries without reference to absolute amounts, the differences in coverage can be ignored.

Growth 1959/60 - 1960/1 to 1963/4 - 1964/5

Comparisons between the growth in Australia's exports of finished manufactures classified by S.I.T.C. groups between 1959/60-1960/1 to 1963/4-1964/5 and the growth in imports of these commodities by overseas countries over the comparable period are made in Chapter 5. Statistics for most of these countries were obtained from the summary tables of the annual editions of the United Nations Yearbook of International Trade Statistics. For those countries where the Australian share of the import market for finished manufactures is large (viz. New Zealand, Papua and NewGuinea and Fiji) reference was made to sources which showed imports from Australia as well as imports from all sources. This information was provided from the United Nations publication Commodity Trade Statistics Series "D" for New Zealand[31] and the national trade returns of Papua and New Guinea and Fiji.

---

31. New Zealand national trade returns were not compiled on an S.I.T.C. basis until 1962/3.

Import statistics on an SITC basis are not available for most of the small dependent Oceanian Islands. An indication of trends in their imports of finished manufactures was obtained from various yearbooks published by the relevant protecting nations.

V METHODS OF CALCULATING GROWTH RATES

Annual growth rates used in this study are mainly calculated from regression co-efficients. The method follows that set out in a recent Board of Trade study.[32] Each growth rate was obtained from the antilogarithm of the regression co-efficient of a straight line fitted by least squares to the logarithms of the annual values of exports, with time as the independent variable.

The exponential trends resulting from these calculations are relatively free of the distortions which could arise if annual compound rates were calculated between terminal years.

A departure from this method was made for the calculations for Fig. 4.7 (page165). Growth rates in that instance were calculated from the percentage change between single terminal years.

---

32. "United Kingdom and World Exports of Manufactures in the Past Decade" Supplement to Board of Trade Journal (London), 18 November, 1966, p.XXVIII.

CHAPTER 3

COMPOSITION AND DIRECTION OF AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES, 1954/5 to 1964/5

The purpose of this chapter is to set down the salient features of Australia's exports of finished manufactures. The relevant export statistics have been classified, by commodities, into four broad economic classes based on economic use principles. The classes are as follows: capital goods; consumer goods; motor cars and motor vehicle parts and components; and 'other' finished manufactures. The classification of countries of destination has also been based on economic criteria, and distinguishes between industrial and primary-producing countries. Industrial countries are defined as Western Europe, North America and Japan. All other countries (including the Sino-soviet bloc) are defined as primary producing countries. Primary-producing countries have been further sub-divided into the main headings of New Zealand, Oceanian Islands and 'other'

primary-producing countries. These four main commodity and country classes form the statistical framework within which Australia's exports of finished manufactures will be examined in Parts II and III.[1]

Part I of this chapter is devoted to exploring the nature of the import markets of primary-producing countries and the industrial countries.[2] In particular it will examine the extent to which economic development - particularly industrial development - has influenced the commodity composition of the imports of finished manufactures of the primary-producing countries.

---

1. For a more detailed explanation of the commodity and country classifications used in this chapter see pages

has
2. As this discussion/drawn heavily on various secondary sources, the exact definition of 'industrial' countries and 'primary-producing' countries varies within Part I. Other terms such as 'under-developed countries' will also be introduced, following the sources. Any major differences between those definitions and the definition given in the first paragraph of this chapter will be indicated in footnotes.

   It should also be noted that the New Zealand and South African economies are discussed under one heading in Part I due to the similarities between them. In Parts II and III South Africa (as a destination for Australia's exports of finished manufactures) is discussed with 'other' (i.e. non-Oceanian) primary-producing countries.

Part II will outline, in turn, the direction and the commodity composition of Australia's exports of finished manufactures, discussing the pattern existing at the beginning of the period and tracing the main changes which have occurred during the period under survey.

Finally, Part III will examine the relationship between the commodity structure of Australia's finished manufactures exported to the four classes of countries of destination and the general characteristics of their imports. A particular point to be established is the extent to which economic development during the period in the countries of destination has influenced the commodity structure of Australia's exports of finished manufactures to them.

I THE NATURE AND GROWTH OF IMPORTS OF FINISHED MANUFACTURES INTO PRIMARY-PRODUCING AND INDUSTRIAL COUNTRIES

1 PRIMARY-PRODUCING COUNTRIES

Stages of development and the structure of imports

Primary-producing countries include a vast number of countries in varying stages of development, with varying industrial structures and standards of living. Nevertheless most of these countries are proceeding towards a common objective of economic development on broadly similar lines. In particular it has been shown that industrial development, a major element in the development strategy of these countries, tends to follow a certain sequence.[3] The processing of raw materials for export, either by domestic or foreign-owned firms has often emerged in these countries as a first major branch of industry. With the development of production for the domestic market, entrepreneurs have initially tended to establish non-durable consumer goods industries.[4] Such finished manufactures as

---

3. The following generalized description of the pattern of industrial growth was largely drawn from United Nations, World Economic Survey, 1961, (New York), 1962, pp.3-60 esp. p.39.

4. Ibid., p.39.

clothing, footwear, soaps and textile articles are among the products of these 'first' industries. In addition certain producer goods' industries (such as cement and fertilizer manufacturing) emerge. These consumer and producer goods industries are not dependent on supplies from a wide range of complementary industries: agricultural or mineral raw materials form the bulk of their inputs. Thus these industries do not depend heavily on other manufacturing industries either as outlets for their production nor as suppliers of materials.

The next phase of industrial expansion includes the emergence of industries producing durable goods particularly consumer durables. In these industries one important line of development begins with the establishment of plants assembling and finishing certain engineering products (such as transport vehicles, refrigerators, industrial engines and electrical machinery).[5] Plant output is dependent on a varied supply of component parts from other plants and industries and though these parts may be mostly imported at first, the creation of a demand for them can lead to the growth of a wide range of ancillary industries. Typically therefore, import

---

5. Ibid.

replacement in durable goods is a gradual process, at first resulting in a decline in imports of completed products, then with a decline of imports of simpler types of components, leading on eventually to a replacement of the more complex imported components. Industrial development in this phase thus is leading towards the establishment of 'whole industrial complexes' rather than of individual, and comparatively unrelated, plants.[6]

While many under-developed countries have developed manufacturing industries which are well advanced in the second phase, 'engineering industries capable of manufacturing major items of machinery have emerged only in the largest and most industrially advanced countries of the group and even in these countries dependence on imports of most classes of specialized equipment and machinery have not been appreciably reduced'.[7]

In most of the primary-producing countries the trend towards a higher proportion of capital goods in their imports as development proceeds has been accelerated by deliberate government policy measures. Faced with

---

6. Ibid., p.39.

7. Ibid, p.23. The term 'under-developed countries' used in the source excludes South Africa and New Zealand. The generalization however applies to these two countries, which would be classed with 'the most industrially advanced countries of the group'. See below page.65.

shortages of foreign exchange, governments generally have applied import controls to restrict imports of non-essential consumer goods and thereby increase the supply of foreign exchange for essential consumer goods, capital goods and raw materials.[8] Tariffs and multiple exchange rates have been other methods adopted to stimulate or facilitate private industrial development.[9]

Accordingly the primary-producing countries combined account for a large share of world imports of capital goods. In the average of the years 1957-1959 for instance, it has been shown that 44 per cent of the exports of machinery of twelve major industrial exporting countries were destined for under-developed countries.[10]

---

8. Ibid., p.40.

9. Ibid., p.6.

10. 'Under-developed countries' used in this source includes all countries except Europe, the United States of America, Canada, Japan and Australia. It is therefore virtually identical to the term 'primary-producing countries' as defined in the first paragraph of this chapter. In particular, both include South Africa and New Zealand. The term 'machinery' refers to all non-electrical and electric machinery and corresponds approximately to SITC Divisions 71 and 72. See United Nations, Production of Export and Capital Goods in the Fields of Mechanical and Electrical Engineering, Economic Commission for Europe, Geneva, E/ECE/439 Add. 1, 12 February 1962, pp. 156-159.

The share destined for the under-developed countries was particularly high for machinery for exploiting natural resources (mining machinery [of which 69 per cent of the exports of the major exporters was destined for under-developed countries], earthmoving and boring machinery [48 per cent]; machinery for mechanizing building work (construction machinery [52 per cent], conveying, hoisting and handling machinery [52 per cent]; machinery for developing transport and haulage facilities (power-generating machinery other than electric [51 per cent] and tractors [53 per cent]).[11]

However, while the absolute size of the imports of machinery of primary-producing countries as a group is large, it should be noted that the growth rate of their import demand even for essential machinery is severely restrained by their foreign exchange shortages. Over the period 1954 to 1964, for instance, it has been shown that exports of machinery by 11 main exporting countries to primary-producing countries

---

11. Ibid., p.165.

grew markedly more slowly than to the industrial countries.[12] Exports of non-electrical machinery increased by an annual average rate of growth of 7.9 per cent to the primary-producing countries and 12.9 per cent a year to the industrial countries. Exports of electrical machinery increased by 7.8 per cent a year and 15.7 per cent a year respectively over the same period.

---

12. "United Kingdom and World Exports of Manufactures in the Past Decade", Board of Trade Journal, 18 November 1966, p.xv Table B 4.

The term 'primary-producing countries' in this source refers to all countries other than the EEC group, United Kingdom, Sweden, Switzerland, United States, Canada and Japan. Accordingly primary-producing countries, as in the definition of 'under-developed' countries used in the preceeding paragraph includes South Africa and New Zealand. It includes Australia, however which had been excluded from the definition of 'under-developed' countries in the preceeding paragraph.

Non-electrical and electrical machinery refer to SITC Divisions 71 and 72 and accordingly correspond approximately to the term 'machinery' used in the previous paragraph. In addition to producers' capital goods it should be noted that machinery by this definition includes certain consumer durable manufactures such as sewing machines.

Stage of industrial development of selected primary-producing countries

As mentioned above, the category 'primary-producing countries' includes a vast number of countries in widely differing economic circumstances. We will now examine the economiesof certain countries which can be considered representative of primary-producing countries at various stages of development.

(i) The Oceanian Islands

Most of these islands are dependent territories of either Australia (Papua and New Guinea, Nauru, Cocos Is. and Norfolk Is.), the United Kingdom (Fiji, Gilbert and Ellice Is., New Hebrides, Solomon Is. and Tonga), France (New Caledonia) or the United States of America. Western Samoa became an independent Pacific territory in recent years.

Virtually all are agricultural or mining communities with a native subsistence sector modified in varying degrees by the influence of European administration and capital investment in infrastructure and in resource-based industries. These economies have barely commenced on the first stage of industrialization described above:

secondary industries are largely confined to small engineering workshops, wood-based industries (such as sawmilling and plywood manufacture), or food and drink manufacture.[13] While local production of some finished manufactures (including such 'first industries' as clothing, footwear and soap manufacture) has commenced, typically only a narrow range of these commodities is produced. Consequently the demand for a wide range of finished manufactures is predominantly met by imports. Because of the low level of development of secondary industry, most development activity is undertaken by government and semi-government bodies. Public works - building of all kinds, road and bridge construction - provide a high proportion of capital investment in these dependent territories.[14]

---

13. See, for instance, K.H. Danks, Industrial Activity in Selected Areas of the South Pacific, South Pacific Technical Paper No.90, 1956. The main characteristics of the economies of these countries remained unchanged over the period under survey. See, for instance, the description of the economy of New Guinea by R. Kent Wilson, "Import Replacement and Industrial Development In New Guinea", a paper presented to the Australian and New Zealand Association for the Advancement of Science, Section G, Melbourne, January 1967, esp. p.1.

14. See, for instance, Overseas Trading, 28 July 1961, p.317.

(ii) New Zealand and South Africa

Both these countries at the beginning of the period under survey had made considerable progress in industrial development. Using industrial production per head in 1955 as an indicator of industrialization, New Zealand ranked second (to Australia) out of eighteen semi- and non-industrial countries examined by A. Maizels in a study of world industrial growth and trade.[15] The Union of South Africa ranked fifth (with Israel and Argentina recording a higher production per head than South Africa).

At about this time, (1958) domestic production of machinery (electrical and non-electrical) in both New Zealand and South Africa had 'reached a considerable volume'.[16] The porportion of domestic requirements of machinery met by New Zealand industry (in 1958) was 47 per cent. South African manufacturing industry accounted for 49 per cent of South African requirements.

---

15. A. Maizels, Industrial Growth and World Trade, (Cambridge: Cambridge University Press) 1963, p.59.

16. United Nations, Production and Export of Capital Goods in the Fields of Mechanical and Electrical Engineering, Economic Commission for Europe, E/ECE/439 Add. 1, 15 February 1962, p.57.

Domestic production of agricultural machinery, for instance, was 'considerable' in both countries, although 'the high degree of mechanization' in agriculture still required a high level of imports.[17] The share of electrical machinery requirements met by local production was much lower in both countries than the share of non-electrical machinery met by local manufacture. Production (at least in New Zealand) was mainly confined to range making and radio assembly and manufacture.[18]

Imports of consumer goods into both New Zealand and South Africa had been reduced to essentials not produced locally. Non-durable consumer goods were largely produced by their domestic manufacturing industries and their imports of finished manufactures consisted mainly of durable consumer and capital goods.[19]

---

17. Ibid., p.54.
18. Ibid., p.56.
19. Compare the remarkable similarity in the analyses of the import structure of New Zealand and South Africa respectively by G.P. Braae, "The New Zealand Economy, 1955/66", The Economic Record, xxxii, November 1956, p.216, and G. Marais, "Tariff Protection, Industrialization and The Balance of Payments, with Special Reference to the Union of South Africa", South African Journal of Economics, xxviii, March 1960. The analyses related to a period up to 1955 for the imports of New Zealand and for a period up to 1957 for the imports of South Africa.

Motor cars were still considered 'essential' imports in both countries. The two countries were, in fact, entering the second stage of industrialization. The balance of payments crisis which emerged in both countries in 1958[20] served to remind the authorities that industrialization must be pursued more positively. In both New Zealand and South Africa, the administration of import controls has been used to encourage 'manufacture in depth'.[21] Manufacturers, particularly the producers of durable consumer goods and motor vehicles, have subsequently increased the 'local content' of their products.[22]

---

20. See pages 145, 152-155.

21. Compare D.O. Sewell, Electric Household Durable Goods, Research Paper No.7 of the New Zealand Institute of Economic Research (Inc.) (Wellington) 1965, p.35., and M. Kooy and H.M. Robertson, "The South African Board of Trade and Industries; The South African Customs Tariff and the Development of South African Industries", South African Journal of Economics, XXXIV, September, 1966, p.222.

22. See, for New Zealand manufacturing industry:- D.O. Sewell, op.cit., esp. pp.35-6 (particularly in relation to electrical household durable goods); and P.G. Elkan, "New Zealand Relations with Australia: Trade, Size and Structure" Memorandum No.9, New Zealand Institute of Economic Research (Inc.), July 1965 p.7 (in relation to total manufacturing production). For South African manufacturing industry see M.K. Kooy and H.M. Robertson op.cit., pp.221-2; and T.A. Du Plessis "The Balance of Payments and the Economic Development Programme", The South African Journal of Economics, XXXIV, June 1966, pp.128-30.

(iii) Primary-producing countries other than the Oceanian Islands, New Zealand and South Africa

The remaining primary-producing countries are in various stages of emerging from subsistence economies. In general they are facing the same broad problems experienced by New Zealand and South Africa and are adopting similar measures to overcome them.[23] Perhaps the most significant difference between New Zealand and South Africa on the one hand and the other primary-producing countries on the other is in average income levels. One would expect that the durable consumer goods industries (including motor cars), catering for the demand of relatively high income earners, would accordingly be less important in the industrial development strategy of the other primary-producing countries than it has been for New Zealand and South Africa.

---

23. See, for example, the analysis of the stages of development reached by Asian developing countries by A. Kerr, "Some Development Problems in Asian Countries", a paper presented to the Australian and New Zealand Association for the Advancement of Science, SectionG, August 1965, p.12.

2 INDUSTRIAL COUNTRIES

It has frequently been pointed out that the achievement of a high level of industrialization (provided the country has a freedom from severe balance of payments difficulties) does not lead automatically to self-sufficiency in manufactured goods. In fact, the main force behind the growth in world trade in manufactures[24] in the post-war period has been the intra-trade between industrial countries.[25] Industrial growth in the developed countries has been associated with a continuous expansion in their exchange of manufactured goods.

It appears agreed that this rapid growth in trade in manufactures between industrial countries has been based, not on an exchange of one broad class of manufactures for another but on an exchange of specifically different manufactures within the same broad class.

---

24. The term 'manufactures' includes semi-manufactures. However most of the volume of world trade in manufactures is in finished manufactures. The same observations apply therefore to finished manufactures. See page 141.

25. See, for example, A. Maizels, op.cit., pp. 90-1; Kiyoshi Kojima, "The Pattern of International Trade Among Advanced Countries", Hitotsubashi Journal of Economics, June 1964, esp. pp.29,36; United Nations, World Economic Survey, 1961, (New York), 1962, p.4.

Industrial countries, in other words, 'maintain a prosperous and intense 'horizontal' trade in almost all commodity categories'.[26]

The underlying reason for this 'horizontal' pattern of trade between industrial countries is not clear. It has been suggested that trade should be most intensive between countries with similar average income levels. The similarity in demand patterns associated with similar income levels encourages the manufacture of types of goods which find a ready market in other countries on the same level of average incomes.[27] This theory would appear to be a more persuasive explanation of the pattern of trade in consumer goods than trade in capital goods. There is a direct relationship between average incomes and consumer purchasing power. Furthermore, the emergence of a wider variety of tastes as income rises is readily understood. In fashion articles, for example, the imported article need not necessarily be cheaper or of better 'quality' than the domestic product: it is sufficient that it is 'different'.[28]

---

26. Kiyoshi Kojima, loc.cit., p.36.

27. S.B. Linder, An Essay on Trade and Transformation, (New York: Wiley) 1961, esp. pp.94-7.

28. See, for example, the comment on this point by G.F. Ray, "British Imports of Manufactured Goods", National Institute Economic Review, No.8, March 1960, p.27.

Another more traditional explanation is the differences in comparative costs due to differences in national resource endowments, technological development, skills of labour, research and organization.[29] While differences in natural resource endowments can be put forward as a general reason for the emergence of trade between industrial countries the other differences mentioned beg the question of how these differences arose. However undoubtedly at any one point of time they could 'explain' the trade which exists in many finished manufactures between industrial countries.

3. SUMMARY

Australian exporters of finished manufactures are faced with three main types of overseas markets. First, there are those primary-producing countries (such as the Oceanian Islands) which have barely embarked on the first stages of industrialization. As they import virtually all their requirements of finished manufactures there is no strong bias towards either consumer goods or capital goods. Within the capital goods category, however, one would expect a high proportion of machinery

---

29. See, for example, Kiyoshi Kojima, loc.cit., p.36

and equipment for the building and construction, agricultural and mining industries.

Secondly there are the majority of primary-producing countries well advanced on the paths of industrialization and economic development already traversed by New Zealand and South Africa. Imports of finished manufactures into these countries are strongly biased towards complete capital goods for the development of their infrastructure (e.g. transport and communications), agriculture, mining or manufacturing industries. Imports of components parts for assembly are also important in the imports of those primary-producing countries which have begun the first stages of import substitution of durable consumer goods.

Thirdly there are the industrial countries, possessing well established, and (in the larger industrial countries) widely based manufacturing industries highly competitive both in overseas and their own domestic markets. As these countries are virtually without quantitative import licensing restrictions, exports can be made to these countries in a wide range of goods provided that the goods are sufficiently 'competitive' to surmount tariff barriers and can compete against the products of domestic and other overseas suppliers. However these

are stringent qualifications indeed. It will be of interest to discover (in Part III) the types of finished manufactures produced by Australia which are sufficiently competitive to survive the selection process presented by these rigorous marketing conditions.

II TRENDS IN DIRECTION AND COMMODITY COMPOSITION OF AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES 1954/5 to 1964/5

A number of tables and graphs on Australia's exports of finished manufactures accompany the text for this and the following part. The summary tables 3.1 and 3.2 show the direction and the commodity composition respectively. The columns in both of these tables show the share in Australia's exports of finished manufactures for each of the pairs of years 1954/5-1955/6 and 1963/4-1964/5, the annual compound rate of growth between 1954/5 and 1964/5 and the value in 1963/4-1964/5. Figures 3.1 and 3.2 show the main trends in the direction and the commodity composition respectively of Australia's exports of finished manufactures between 1954/5 and 1964/5. Both figures contain two graphs, one showing the shares in three-year moving averages and the other showing the absolute level in each year. Tables A1 and A2 in Appendix A are the working sheets from which this data was drawn. In table A1 37 separate countries and areas of destination are shown.

Figures 3.3 to 3.7 contain graphs on the direction of Australia's exports of capital goods, consumer goods, motor cars and motor vehicle parts and components and 'other' finished manufactures, respectively.

Tables 3.3 to 3.6 are summary tables showing Australia's exports of finished manufactures cross-classified by the four main commodity and country categories. They provide details of the value in the average of the years 1963/4-1964/5 (Table 3.3), the compound rate of growth between 1954/5 and 1964/5 (Table 3.4), and the shares of country groups for each commodity group (Table 3.5) and the shares of the commodity groups in exports to each country group (Table 3.6) for the average of the years 1963/4-1964/5.

The data for Tables 3.3, 3.5 and 3.6 were drawn from working sheets which are reproduced in Tables A3 and A4 in Appendix A. Table A3 shows the value of Australia's exports of finished manufactures for each of the 56 commodity groups, cross-classified by the four main commodity categories for 1954/5-1955/6 and 1963/4-1964/5. Table A4 shows (with commodity categories shown in more summary form), the shares of commodity and country categories in Australia's exports of finished manufactures for the same two pairs of years.

1. DIRECTION

A feature of Australia's exports of finished manufactures is the high proportion (by value) which is destined for primary-producing countries.[30] At the beginning of the period under survey (viz. in the average of the years 1954/5-1955/6) 90.9 per cent of Australia's exports of finished manufactures were destined for primary-producing countries. As can be seen in Table 3.1, countries in the Oceanian area provided the largest markets. New Zealand alone accounted for 41.9 per cent of Australia's exports of finished manufactures. Papua and New Guinea accounted for a further 15.7 per cent and other Oceanian islands for 9.0 per cent. Primary-producing countries in Asia took a further 14.0 per cent, with Malaysia and Singapore (7.7 per cent) together comprising the largest sub-area of destination. Just over 9.0 per cent was destined for the African continent where South Africa (6.0 per cent) provided the largest single market.

---

30. Compare the much lower proportion of the exports of finished manufactures of the major industrial countries which are destined for primary-producing countries, page 141.

Table 3.1. AUSTRALIA: EXPORTS OF FINISHED MANUFACTURES BY COUNTRIES OF DESTINATION

(Excluding re-exports, secondhand ships and approximate values of aid shipments[a])

DESTINATION	SHARE		Average annual rate of growth[b]	Value
	1954/5-1955/6 Average	1963/4-1964/5 Average	1954/5- 1964/5	1963/4-1964/5 Average
	%	%	%	£Am.
OCEANIA: TOTAL	66.5	53.8	10.5	35.0
New Zealand	41.9	35.9	11.0	23.4
Papua and New Guinea	15.7	9.1	8.4	5.9
Other Oceanian Islands	9.0	8.8	12.0	5.7
OTHER PRIMARY-PRODUCING COUNTRIES: TOTAL	24.3	32.7	17.5	21.3
Asia	14.0	21.0	20.0	13.7
West Asia	0.6	1.2	23.7	0.8
South Asia	2.1	2.5	20.8	1.6
Malaysia and Singapore	7.7	8.2	14.8	5.3
Other South-East Asia	2.4	6.6	27.5	4.3
East Asia (excl. Japan)	1.4	2.5	20.7	1.7
Africa	9.2	9.6	14.5	6.2
North Africa	0.2	1.2	25.2	0.8
West Africa	0.3	1.2	32.8	0.8
South and East Africa	2.9	1.5	8.3	1.0
South Africa	6.0	5.7	13.5	3.7
Americas	0.4	2.0	21.0	1.3
British West Indies	0.4	0.9	17.7	0.6
Central America	0.0	0.2	14.6	0.2
South America	0.0	0.9	33.1	0.6
INDUSTRIAL COUNTRIES: TOTAL	9.1	13.7	18.3	8.9
North America	1.8	3.9	22.2	2.5
Canada	0.3	1.0	30.2	0.7
United States	1.5	2.8	20.1	1.8
Japan	0.9	1.2	17.5	0.8
Europe	6.2	8.6	17.1	5.6
United Kingdom	5.4	6.9	16.6	4.5
E.E.C.	0.8	1.0	19.0	0.7
Other Europe	0.3	0.7	22.7	0.5
TOTAL ALL COUNTRIES	100.0	100.0	13.4	65.3

Sources: Commonwealth Bureau of Census and Statistics, Australian Exports, and Overseas Trade Bulletins.

(a) For description of these adjustments to recorded exports see text pp. 41-48

(b) Compound rates of growth derived from exponential trend equations. See text, p53

The industrial countries accounted for only a small proportion (9.1 per cent) of Australia's exports of finished manufactures at the beginning of the period. Moreover this export trade was mainly concentrated on the United Kingdom, which accounted for 5.4 per cent of Australia's total exports of finished manufactures.

While the underlying reasons for this market pattern have not been demonstrated empirically in this study, it seems reasonable that the predominance of Oceanian countries (and, therefore, primary-producing countries) in Australia's exports of finished manufactures lies with the many direct and indirect advantages of close proximity.[31] Tariff preferences

---

31. These advantages would be, for instance, in ease of communication (particularly in quick delivery of consignments by sea), in the large Australian expatriate population in many of the Islands (particularly Papua and New Guinea), in the commercial interests which Australian firms have in the islands (particularly in Papua and New Guinea and Fiji) and New Zealand and in the official position of Australia as administrator of trust territories. Furthermore many overseas-owned firms in Australia have franchises which restrict their sales to more distant countries. Furthermore, substantial margins of preference over non-British Commonwealth countries are accorded a wide range of finished manufactures in New Zealand.

on a limited number of finished manufactures in Malaya (including batteries and pharmaceuticals) and a wide range of finished manufactures in the United Kingdom have undoubtedly contributed to the substantial exports to these two countries in the beginning of the period. Exports of finished manufactures to South Africa in 1954/5-1955/6 predominantly consisted of agricultural machinery.

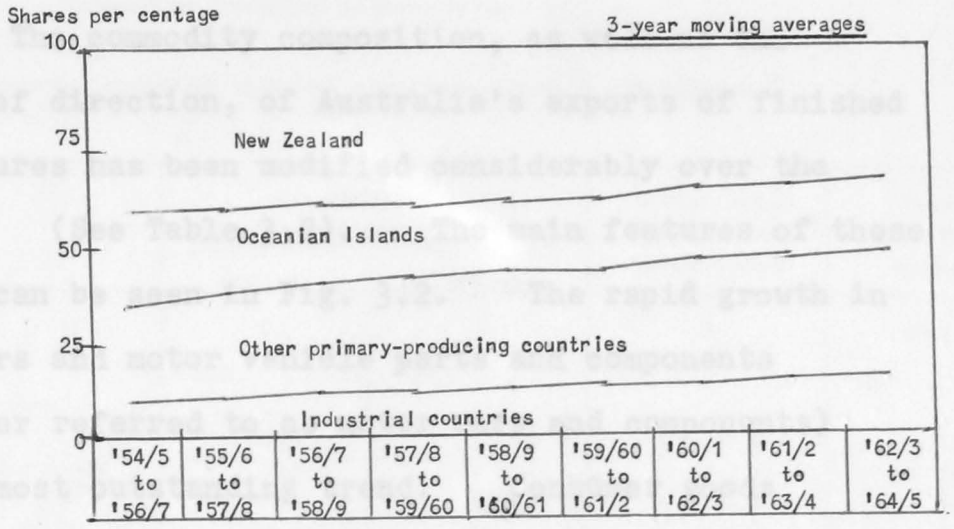
While the basic features of the geographical distribution of Australia's exports of finished manufactures were retained over the succeeding decade there were some important modifications. Australia's exports of finished manufactures to the Oceanian area grew much more slowly than to other areas. As can be seen in Table 3.1 the average annual growth in these exports to the Oceanian area was 10.5 per cent compared with an average rate of 13.4 per cent a year in Australia's exports of finished manufactures to all countries. Exports to primary-producing countries other than Oceania and to the industrial countries grew by 17.5 per cent and 18.3 per cent respectively. A feature of the rapid growth in these exports to non-Oceanian countries was that it was not restricted to a limited number of countries: rapid growth was recorded in exports to most areas.

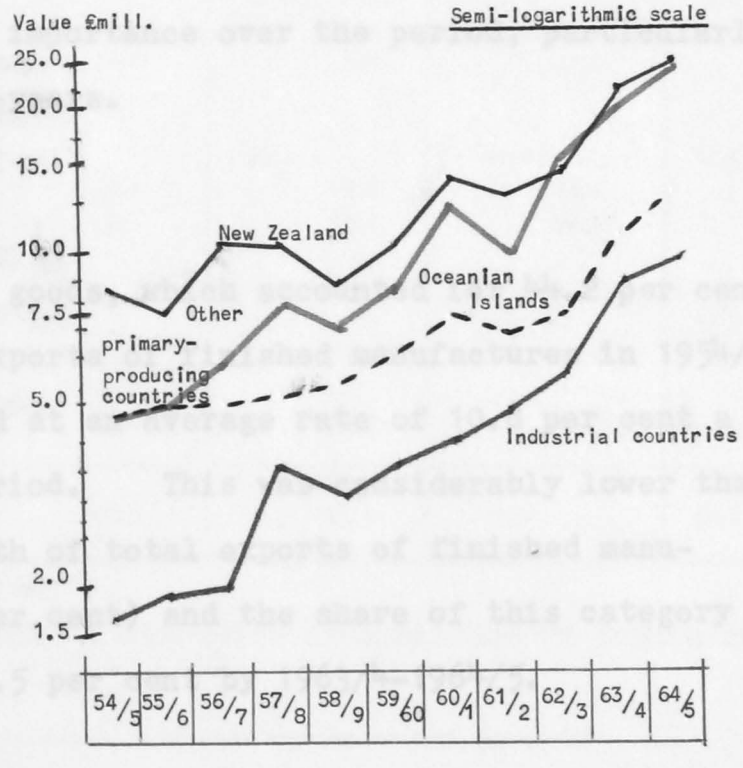
The only area to which Australia's exports of finished manufactures failed to grow as rapidly as to the Oceanian area was South and East Africa (mainly Kenya and Rhodesia).

As a consequence, the share of the Oceanian area declined over the period. As can be seen from the top graph of Figure 3.1 the decline was continuous over the entire period. By 1963/4-1964/5 the share of the Oceanian area had declined to 53.8 per cent compared with the 66.5 per cent held in 1954/5-1955/6. The share of New Zealand declined from 41.9 per cent to 35.9 per cent, the share of Papua and New Guinea from 15.7 per cent to 9.1 per cent and the share of other Oceanian islands grouped together from 9.0 per cent to 8.8 per cent.

By the end of the period, the share of the industrial countries had risen by 4.6 percentage points to 13.7 per cent and the share of primary-producing countries other than Oceania by 8.4 percentage points to 32.7 per cent.

Fig. 3.1. AUSTRALIA: EXPORTS OF FINISHED MANUFACTURES[(a)] BY MAIN GROUPS OF COUNTRIES OF DESTINATION, 1954/5 to 1964/5





Source: Working sheets for Table 3.1.

(a) Excludes re-exports and approximate values of secondhand ships and aid shipments.

2. COMMODITY COMPOSITION

The commodity composition, as well as the pattern of direction, of Australia's exports of finished manufactures has been modified considerably over the period. (See Table 3.2). The main features of these changes can be seen in Fig. 3.2. The rapid growth in motor cars and motor vehicle parts and components (hereafter referred to as motor cars and components) was the most outstanding trend. Consumer goods maintained its share of Australia's exports of finished manufactures, while capital goods declined in importance. The miscellaneous category 'other finished manufactures' also declined in importance over the period, particularly in the final few years.

Capital goods

Capital goods, which accounted for 44.2 per cent of Australia's exports of finished manufactures in 1954/5-1955/6, increased at an average rate of 10.8 per cent a year over the period. This was considerably lower than the rate of growth of total exports of finished manufactures (13.4 per cent) and the share of this category had fallen to 36.5 per cent by 1963/4-1964/5.

Table 32. AUSTRALIA: EXPORTS OF FINISHED MANUFACTURES

Commodities classified by economic use

(Excluding re-exports, secondhand ships and approximate values of aid shipments[a])

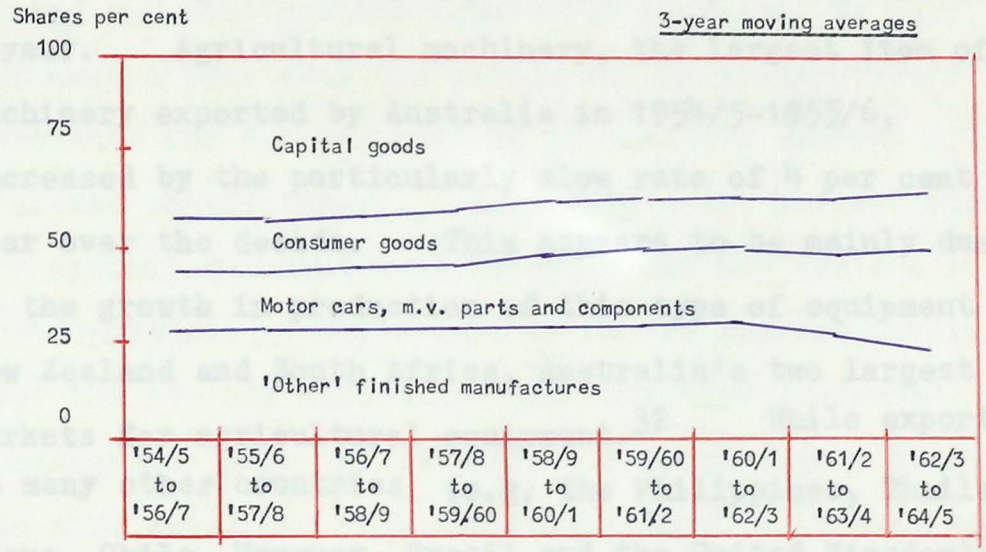
COMMODITY GROUP	SHARE		Average annual Rate of growth[b] 1954/5-1964/5	Value 1963/4-1964/5 Average
	1954/5-1955/6 Average	1963/4-1964/5 Average		
	%	%	%	£Am.
CAPITAL GOODS	44.2	36.5	10.8	23.8
Machinery, other than electrical :-	28.9	23.2	10.9	15.1
Mining, earthmoving (incl. tractors)	(5.4)	(6.3)	(15.5)	(4.1)
Agricultural	(7.8)	(3.2)	(4.1)	(2.1)
Other machinery	(15.9)	(13.6)	(11.5)	(8.9)
Communication and electrical	9.8	10.0	14.4	6.5
Commercial transport (excl. m.v. parts)	5.5	3.3	4.6	2.1
CONSUMER GOODS	15.3	14.8	13.3	9.7
Durable	8.7	9.4	15.3	6.1
Non-durable	6.6	5.4	10.6	3.6
MOTOR CARS AND MOTOR VEHICLE PARTS AND COMPONENTS	11.9	25.4	21.9	16.6
Complete motor cars	3.6	9.2	20.4	6.0
Motor vehicle parts and components	8.3	16.2	24.6	10.6
OTHER FINISHED MANUFACTURES	28.6	23.3	11.7	15.2
Building and engineering hardware	8.0	7.8	13.9	5.1
Other finished manufactures	20.5	15.5	10.7	10.1
TOTAL FINISHED MANUFACTURES	100.0	100.0	13.4	65.3

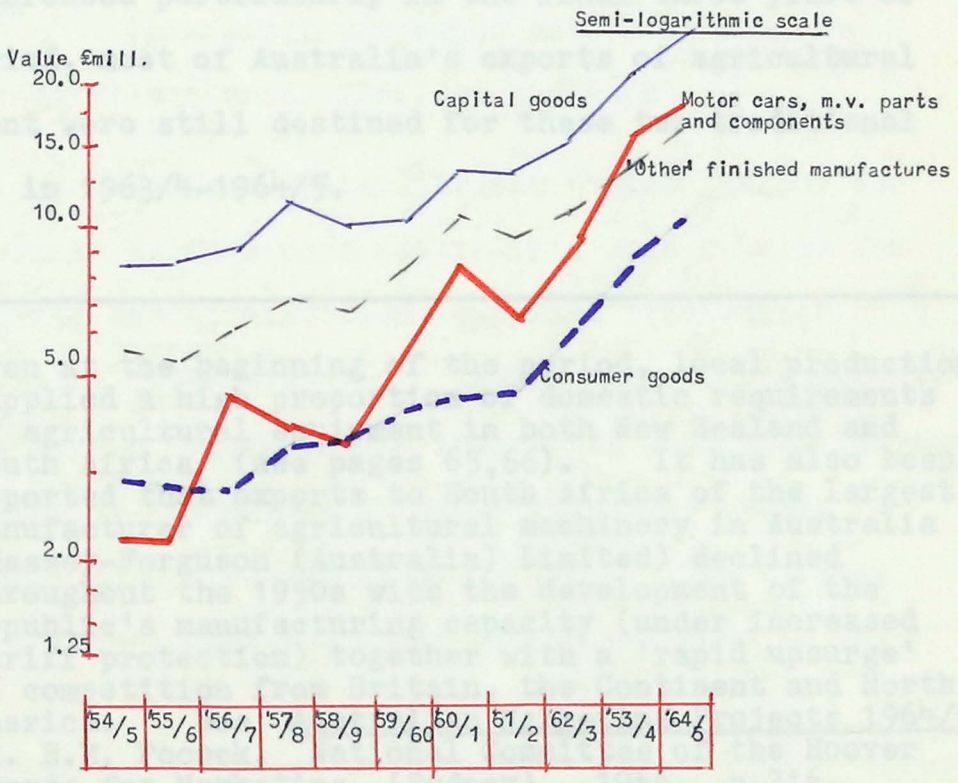
Sources: Commonwealth Bureau of Census and Statistics, Australian Exports, and, Overseas Trade Bulletins

(a) For description of these adjustments to recorded exports see text, pp. 41-48

(b) Compound rates of growth derived from exponential trend equations. See text p.53

Fig. 3.2. AUSTRALIA: EXPORTS OF FINISHED MANUFACTURES BY MAIN ECONOMIC USE CATEGORIES 1954/5 to 1964/5





Source: Working sheets for Table 3.1.

Non-electrical machinery, the major component in the capital goods category, increased by 10.9 per cent a year. Agricultural machinery, the largest item of machinery exported by Australia in 1954/5-1955/6, increased by the particularly slow rate of 4 per cent a year over the decade. This appears to be mainly due to the growth in production of this type of equipment in New Zealand and South Africa, Australia's two largest markets for agricultural equipment.[32] While exports to many other countries (e.g. the Philippines, Thailand, Ghana, Chile, Uruguay, Brazil and the United Kingdom)[33] have increased particularly in the final three years of the period, most of Australia's exports of agricultural equipment were still destined for these two traditional markets in 1963/4-1964/5.

---

32. Even at the beginning of the period, local production supplied a high proportion of domestic requirements of agricultural equipment in both New Zealand and South Africa (see pages 65,66). It has also been reported that exports to South Africa of the largest manufacturer of agricultural machinery in Australia (Massey-Ferguson (Australia) Limited) declined throughout the 1950s with the development of the Republic's manufacturing capacity (under increased tariff protection) together with a 'rapid upsurge' in competition from Britain, the Continent and North America. See Australian Marketing Projects 1964/5, Ed. B.M. Pocock, National Committee of the Hoover Awards for Marketing (Sydney), 1966, p.316.

33. Australia's exports of agricultural machinery to the United Kingdom had declined from 1955/6 to 1961/2.

Exports of equipment (including tractors) for mining and construction industries increased by 15.5 per cent a year over the period and in 1963/4-1964/5 accounted for 6.3 per cent of Australia's exports of finished manufactures. Australia's two largest markets for mining equipment were Malaysia and New Zealand in 1954/5-1955/6. While exports to New Zealand declined over the period, exports to Malaysia have increased considerably over the period. A large export trade has also developed with the Philippines. A smaller, but continuous, trade has also been developed with India.[34] Occasional shipments have been made to other countries (Korea, Thailand and Peru).

New Zealand, Malaysia, the United Kingdom and the Oceanian Islands were Australia's main markets for earthmoving and construction equipment (including tractors) in 1954/5-1955/6. While Australia's exports of this type of equipment to individual countries fluctuate considerably, the number of large shipments became noticeably more frequent after 1961/2. The largest single shipment over the whole decade was made to the

---

34. Apparently for diamond drilling bits. See Australian Exporter, November-December 1959, p.43.

United Arab Republic in 1964/5 as part of a £1.6 million order comprising a total of 92 self-powered earthmovers 'ranging from 148 hp electrically-controlled motor scrapers to 218 hp rubber tyred tractor dozers, together with replacement parts'.[35] The equipment was to be used to develop an area of desert into arable farm land. While the successful firm had been exporting since 1941, this was by far its largest single order.[36] Other large shipments after 1961/2 were to Thailand (£110,000 in 1962/3, £146,000 in 1963/4), India (£128,000 in 1962/3) Pakistan (£361,000 in 1964/5).

The miscellaneous group, 'other' non-electrical machinery (which increased at a rate of 11.5 per cent a year over the period) includes a wide range of machinery and equipment. The faster growing types were office machinery (18 per cent a year), exported (mainly in the last three years of the period) to Japan, Malaysia, Hong Kong, the Philippines and New Zealand; metal working machinery (15 per cent a year) which have increased rapidly to South Africa and the Philippines and slowly to New Zealand; pumps and compressors (16 per cent a year) which had not been exported outside the Oceania

---

35. Overseas Trading, 12 June, 1964, p.268.

36. It was claimed in fact that this sale (by Le Tourneau-Westinghouse Pty. Ltd.) was the 'biggest single sale ever by an Australian manufacturer on an overseas order'. See Australian Trader, March 1964, p.9.

area until 1961/2 but increased rapidly thereafter to the Philippines, Malaysia, Thailand, South Africa, United Kingdom, the United States and Canada; food processing equipment (17 per cent a year) including exports of sugar processing plant to Fiji and South Africa, baking equipment to Japan and various types of confectionery, crumpet and breakfast food making machinery to the United Kingdom and the United States.

Exports of electrical and communication equipment increasing by 14.4 per cent a year over the period 1954/5 to 1964/5 have developed along several lines. First, the major element in this growth has been in the supply of components for the household electrical goods industry in New Zealand. These consisted predominantly of components for television receivers (classified in Tables A2 and A3 under the 'communications' group). The second main development occurred within the battery group. Australia has a traditional export trade in storage batteries, mainly with Asian countries. However the level of Australia's exports of this type of battery barely increased over the period 1954/5 to 1964/5. Export markets which have developed with Indonesia, Ceylon, Thailand and India have dwindled. Exports to

Malaysia, the largest single area destination have not grown.[37] As this type of battery is relatively simple to produce,[38] most probably imports have been replaced by local production in these developing countries. However this traditional trade in storage batteries has been overshadowed by the rapid growth in 1962/3, 1963/4 and 1964/5 of exports of dry cell batteries (for flashlights and transistor radios), mainly to the Philippines,[39] but also to Venezuela, Hong Kong, Malyasia and Singapore. The firm is an associate of a large American company.[40]

---

37. This is despite (or perhaps because of) the establishment of an Australian company in Malaysia to assemble parts exported from Australia. See The Bulletin, 29 August 1964, p.62.

38. For instance, storage batteries have been produced in Australia since the 1920s. The Australian Exporter, December 1949, p.32.

39. There is some uncertainty whether these were battery parts or completed batteries: according to an export journal article of the period, shipment had commenced by May 1964 of an order for five million completed dry cell batteries for the Philippines. However these shipments were mainly recorded as parts of dry cell batteries in the Australian export statistics. See The Australian Exporter, May 1964, p.11. and Commonwealth Bureau of Census and Statistics, Australian Exports, 1963/4 and 1964/5.

40. The company (Union Carbide (Aust.) Ltd., makers of 'Eveready' batteries) reportedly exported batteries valued at £1 million in 1963.

The third major development has been in the export of electrical distribution equipment such as switchgear and transformers. At the beginning of the period (1954/5-1955/6) exports were mainly destined for New Zealand and the Oceanian Islands. In addition to the growth in this traditional export trade, exports increased in the final three years of the period to South Africa, Thailand and Malaysia.

The fourth main development within the electrical and communication group has been in the export of telecommunications equipment (included with components for television receivers in the 'communications' group in Tables A2 and A3). Exports of this type of equipment tend to be sporadic. Before 1961/2 the main shipments had been to Malaysia (transmitters) in 1954/5, 1955/6 and 1956/7 and South Africa (civil aviation equipment) in 1958/9. However from 1961/2 shipments of communication equipment (mainly to Asia) have become more frequent. A large shipment of broadcast transmitters to India in 1962/3 was followed by a series of smaller shipments to other countries, the main shipments being television transmission equipment to Singapore (1963/4), telephone and radio equipment to the Philippines (1963/4, 1964/5), and radio transmitters to Thailand (1964/5).

Most of the increased exports of this type of communication equipment over this period (but not including the television transmission equipment exported to Singapore) appear to have been achieved by one company. This company, which became part of a multi-national corporation in the 1920s, made a basic change of policy in 1961 to withdraw from the manufacture of household appliances and to concentrate wholly on telecommunications equipment for use in Australia and overseas.[41] Exports by the company of telecommunication equipment to all countries reportedly rose from £50,000 in 1961/2 to a forecast £1,600,000 in 1964/5. Reportedly, the 'under-developed countries', which are establishing telecommunications networks have provided the company with its 'best markets'.[42] In 1963 the company obtained what was claimed as 'the largest export order for telecommunications equipment in Australian history'.[43] The order for 'more than' 200 radio transmitter receivers and 20,000 telephones for the Philippine islands totalled over £1 million[44] and was the result of a combined £5.3 million

---

41. Press Release by Standard Telephones and Cables Pty. Limited, 1 July, 1963.

42. Impetus, June-July 1965, p.100.

43. The Australian Exporter, September 1963, p.34.

44. Export shipments under this contract had begun during 1963/4. However the bulk of the order was not delivered during the period under survey.

tender made in co-operation with four associated companies in the world-wide group. According to the Managing Director of the company 'each of (the companies) will be making those components (they) can provide with world-beating efficiency'.[45]

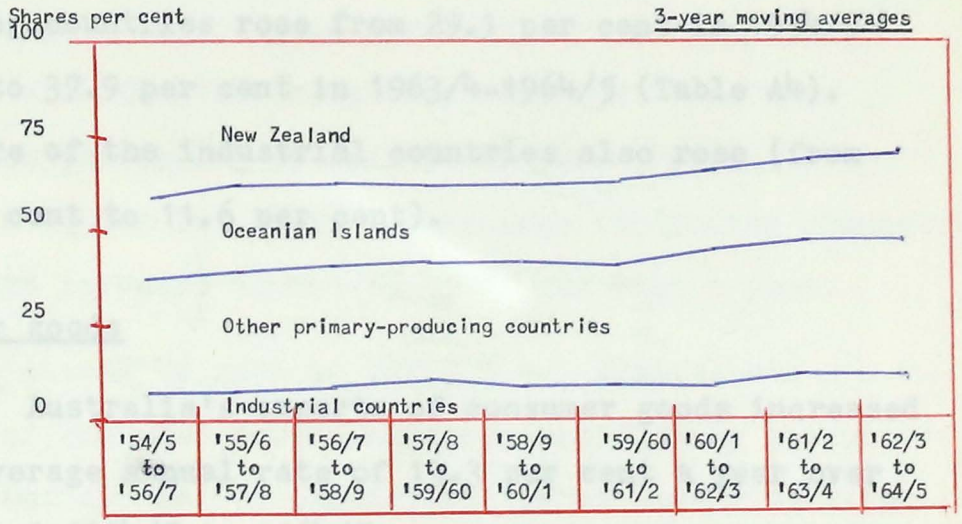
Australia's exports of commercial transport equipment increased by the slow rate of 4.6 per cent a year over the period. This is the net effect of two factors. On the one hand aircraft (mainly Jindivik pilotless missiles exported to Sweden in 1957/8; United Kingdom in 1957/8 and subsequent years; and the United States in 1963/4 and 1964/5) increased by the rapid rate of 19 per cent a year. On the other hand railway vehicles (large orders of which were delivered to New Zealand and Malaysia in 1957/8 and 1958/9) have increased by only 6 per cent. Boats and motor trucks, mainly destined for the Oceania area have also increased at a slow rate (by 3 per cent and 1 per cent a year respectively).

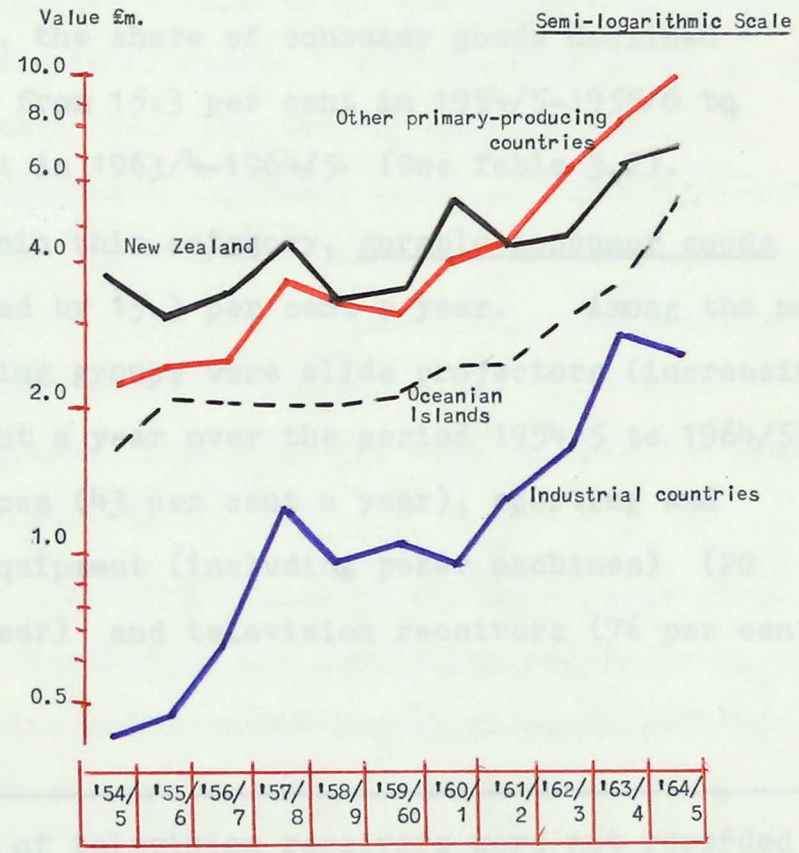
The overall effect of the trends described above on the direction of Australia's exports of capital goods can be clearly seen in Fig. 3.3. The importance of the Oceanian area, particularly New Zealand, declined

---

45. The Australian Exporter, September 1963, p.34.

Fig.33. AUSTRALIA: EXPORTS OF FINISHED CAPITAL GOODS[(a)] BY MAIN GROUPS OF COUNTRIES OF DESTINATION, 1954/5 to 1964/5





Source: Working sheets for Table 3.2.

(a) Machinery, communications and electrical equipment and commercial transport equipment (excluding passenger cars and motor vehicle parts and components).

The share destined for other primary-producing countries rose from 29.1 per cent in 1954/5-1955/6 to 37.9 per cent in 1963/4-1964/5 (Table A4). The share of the industrial countries also rose (from 6.5 per cent to 11.6 per cent).

Consumer goods

Australia's exports of consumer goods increased at an average annual rate of 13.3 per cent a year over the period 1954/5 to 1964/5. As this rate was just below the growth in Australia's total exports of finished manufactures, the share of consumer goods declined slightly - from 15.3 per cent in 1954/5-1955/6 to 14.8 per cent in 1963/4-1964/5. (See Table 3.2).

Within this category, durable consumer goods have increased by 15.3 per cent a year. Among the most rapidly growing groups were slide projectors (increasing by 35 per cent a year over the period 1954/5 to 1964/5), sewing machines (43 per cent a year), sporting and recreation equipment (including poker machines) (20 per cent a year) and television receivers (76 per cent a year[46]).

---

46. Exports of television receivers were not recorded separately in Australian export classification until 1960/1.

The average growth in non-durable consumer goods was much lower (10.6 per cent a year) than for durables with the two groups footwear and soaps and toiletries increasing by only 8 per cent a year. However clothing and house furnishings (including blankets, towels and carpets) increased by 16 per cent a year.

As can be seen in Table 3.4., Australia's exports of consumer goods increased rapidly (by about 20 per cent a year) to primary-producing countries other than Oceania and to industrial countries. However the growth in Australia's exports to the industrial countries is of the most significance: even in 1954/5-1955/6 the industrial countries accounted for 20.3 per cent of Australia's exports of consumer goods and by 1963/4-1964/5 their share of this category had risen to 36.5 per cent (see Table A4). The share of Australia's total exports of durable consumer goods which were destined for the industrial countries increased from 27.0 per cent to 47.2 per cent over the same period.

Only a limited number of consumer goods were exported by Australia to the industrial countries at the beginning of the period under survey (i.e. in 1954/5-1955/6). Three items comprised the bulk of these exports: pens and pencils (to the United Kingdom),

Table 3.3. Australia EXPORTS OF FINISHED MANUFACTURES [a] 1963/4-1964/5 (Average)

Value £Am.

Main economic use categories	New Zealand	Oceanian Islands	Other primary-producing countries [c]	Industrial countries [c]	Total
CAPITAL GOODS	7.2	4.9	9.0	2.8	23.8
CONSUMER GOODS	1.7	2.0	2.4	3.5	9.7
MOTOR CARS AND MOTOR VEHICLE PARTS AND COMPONENTS	9.3	1.6	5.2	0.5	16.6
OTHER	5.2	3.1	4.8	2.1	15.2
TOTAL	23.4	11.6	21.3	8.9	65.3

Sources and Notes: See table 3.4.

Table 3.4. AUSTRALIA: GROWTH IN EXPORTS OF FINISHED MANUFACTURES [a] 1954/5 to 1964/5

ANNUAL RATES OF GROWTH per cent [b]

CAPITAL GOODS	7.1	9.4	14.6	17.4	10.8
CONSUMER GOODS	7.2	7.9	19.2	20.9	13.3
MOTOR CARS AND MOTOR VEHICLE PARTS AND COMPONENTS	19.3	11.4	37.2	20.4	21.9
OTHER	9.8	11.2	12.8	16.2	11.7
TOTAL	11.0	9.8	17.5	18.3	13.4

Sources: Commonwealth Bureau of Census and Statistics, Australian Exports and Overseas Trade Bulletins.

(a) Excluding re-exports, secondhand ships and approximate values of aid shipments. For description of adjustments made to recorded exports, see text pp. 41-48

(b) Compound rates of growth derived from exponential trend equations. See text p. 53

(c) See Table 4.1 for list of countries and areas included under this heading.

Table 3.5. SHARES OF AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES (a) 1963/4-1964/5 (AVERAGE)

COMMODITY CATEGORIES BY COUNTRIES OF DESTINATION

Per cent

Main economic use categories	New Zealand	Oceanian Islands	Other primary-producing countries	Industrial countries	Total
CAPITAL GOODS	31.3	20.5	37.9	11.6	100.0
CONSUMER GOODS	17.9	21.1	24.3	36.5	100.0
MOTOR CARS AND MOTOR VEHICLE PARTS AND COMPONENTS	56.1	9.6	31.1	3.1	100.0
OTHER	34.3	20.4	31.4	13.9	100.0
TOTAL	35.9	17.4	32.7	13.7	100.0

Sources and Notes: See table 3.4.

Table 3.6. SHARES OF AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES (a) 1963/4-1964/5 (AVERAGE)

COUNTRIES OF DESTINATION BY COMMODITY CATEGORIES

Per cent

CAPITAL GOODS	30.5	42.0	42.3	30.8	36.5
CONSUMER GOODS	7.4	17.6	11.0	40.0	14.8
MOTOR CARS AND MOTOR VEHICLE PARTS AND COMPONENTS	39.9	13.7	24.3	5.7	25.4
OTHER	22.2	26.7	22.4	23.5	23.3
TOTAL	100.0	100.0	100.0	100.0	100.0

Sources and Notes: See table 3.4.

electrical appliances (to Italy and the United Kingdom) and polishes (to Japan).[47] However these exports, together with a large export trade in footwear to the United States which began in 1958/9,[48] declined in value over the period.

A more enduring, rapidly expanding export trade in other types of consumer goods progressively superseded these original commodities over the period. It is apparent that many of the exporting firms are indigenous and originally developed their products specifically for the Australian market.[49]

---

47. The exports of pens and pencils were apparently for an American owned firm which had been given the franchise to supply the United Kingdom market. The firm (Sheaffer Pen Company) produced pens, pencils and ball-point pens to a standard design. All Sheaffer products 'are identical in quality wherever they are manufactured' in the world. See Australian Exporter, March-April 1957, p.19. There is reason to suspect that the electrical appliances were exports from an overseas owned firm to associate companies in Italy and the United Kingdom.

48. This was apparently comprised of moulded plastic shoes and sandals exported to the United States by 'an Australian-controlled company' in conjunction with an associate company in Puerto Rico. Reportedly 'Upwards of 5 million pairs' of the Australian produced footwear had been ordered in 1958 and 1959 by United States wholesalers. The 'Australian-controlled company' (Utrilon Industries (Aust) Ltd.) planned in 1959 to establish 5 factories in the United States. Exports fell abruptly in 1960/1. See Austral News, (Wellington edition) December 1959.

49. Some Australian-owned manufacturers which have achieved large, continuing export sales in the industrial countries are:-

While at first most of these consumer goods (e.g. slide projectors, spectacles, sporting goods and

---

- Victa Consolidated Industries Pty. Ltd. This firm is Australia's largest manufacturer of lawnmowers. See The Australian, 15 June 1965;
- Ainsworth Consolidated Industries Pty. Ltd. Reportedly, since 1960, this firm which claims to be the "biggest manufacturer of poker machines in the world" has captured 20 per cent of the total British poker machine market. See The Australian Financial Review, 12 January 1965 and 12 October 1966;
- Nutt and Muddle and Sons Pty. Ltd. This firm also claims large export sales of poker machines to the United Kingdom. See The Australian Financial Review, 12 January 1965;
- Speedo Knitting Mills Pty. Ltd. It was claimed in 1965 that 'sales (of swimsuits) to the U.S.A. are now well over $U.S.350,000 a year'. See Austral News (West Indies edition) January-February 1965;
- Pinnock Manufacturing Co. Pty. Ltd. This firm achieved considerable export sales of sewing machines (with a high import content) to the United Kingdom during the period under survey. Reportedly the firm also 'bought out its chief competitors in Holland, Belgium and the United States, making it the first Australian company to buy out overseas groups on a large scale.' See The Australian Exporter, May-June 1958, p.13. (However since the end of the period under survey the firm has suffered severe financial difficulties.);
- Hanimex Pty. Ltd. Reportedly, the slide projector produced by this company 'is probably the best selling brand in Britain'. The company claims that its factory 'undertakes all its product design work, tooling and manufacturing'. See Overseas Trading, 1 May 1964, p.195.

sewing machines) were mainly destined for the United Kingdom,[50] substantial export markets have subsequently developed in the United States for clothing and sporting goods (from 1961/2), and toys (from 1963/4); in Canada for carpets (from 1962/3) and slide projectors (1964/5); and in Japan for golf equipment (from 1962/3), and spectacles, clothing and plastic food covers (in 1963/4 and 1964/5).

Exports to New Zealand of sewing machines[51] and components for refrigerators also grew rapidly over the period. However exports of most consumer goods to New Zealand either declined or increased slowly.

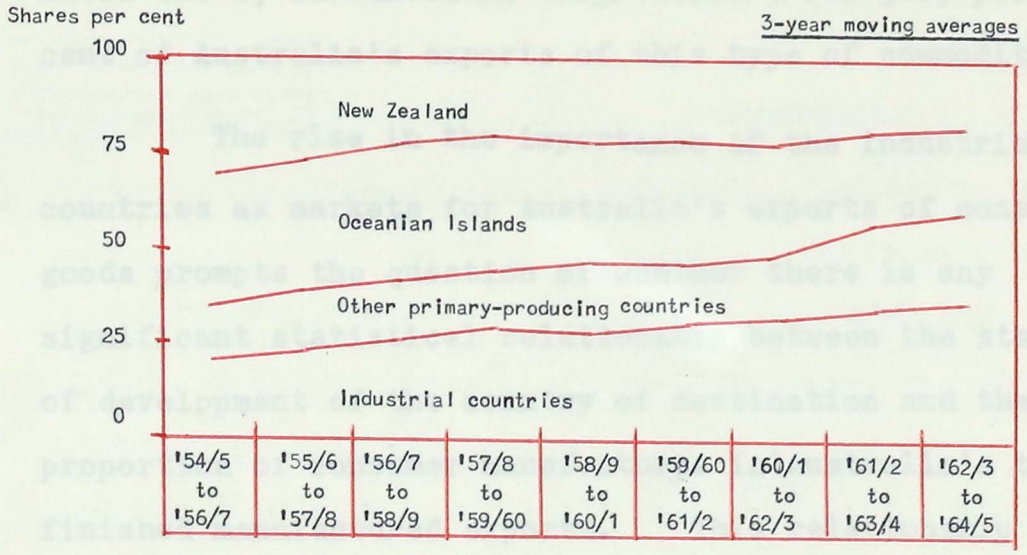
As can be seen in Fig. 3.4., the proportion of Australia's exports of consumer goods which were destined for the Oceania area declined markedly over the period 1954/5 to 1964/5. The outstanding feature was the rise in the importance of the industrial countries which, as

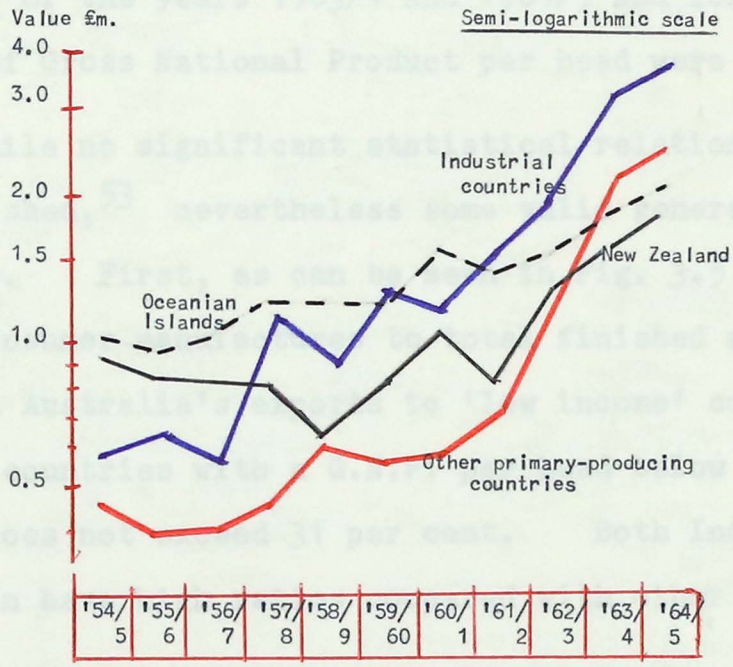
---

50. Where Australia enjoys substantial margins of preference in the tariff over most of the major industrial exporting countries. Some examples of these margins of preference are:- slide projectors, 42½ per cent; spectacles, 20 per cent; sewing machines, 15 per cent; and fountain pens 24 per cent.

51. These, apparently, were the exports of the Singer Sewing Machine Company which had established a plant in Australia in 1958 to 'produce sufficient (sewing machines) for the Australian and New Zealand market'. See The Australian Exporter, March-April 1957, p.37. The sewing machines have a high imported content. See The Tariff Board's Report on Sewing Machines, 6 March 1964, p.5.

Fig. 3.4. AUSTRALIA: EXPORTS OF FINISHED CONSUMER MANUFACTURES (a)
BY MAIN GROUPS OF COUNTRIES OF DESTINATION, 1954/5 to 1964/5





Source: Working sheets for Table 3.2.

(a) Durable (e.g. sporting goods, household appliances, slide viewers) and non-durable (e.g. clothing, soaps, house furnishings). Includes parts and components of some durable consumer goods.

noted above, accounted in 1963/4-1964/5 for 36.5 per cent of Australia's exports of this type of commodity.

The rise in the importance of the industrial countries as markets for Australia's exports of consumer goods prompts the question of whether there is any significant statistical relationship between the stage of development of the country of destination and the proportion of consumer manufactures in Australia's total finished manufactured exports. This relationship was tested for thirty-four countries to which Australia's exports of finished manufactures exceeded £100,000 in the average of the years 1963/4 and 1964/5 and for which estimates of Gross National Product per head were available.[52]

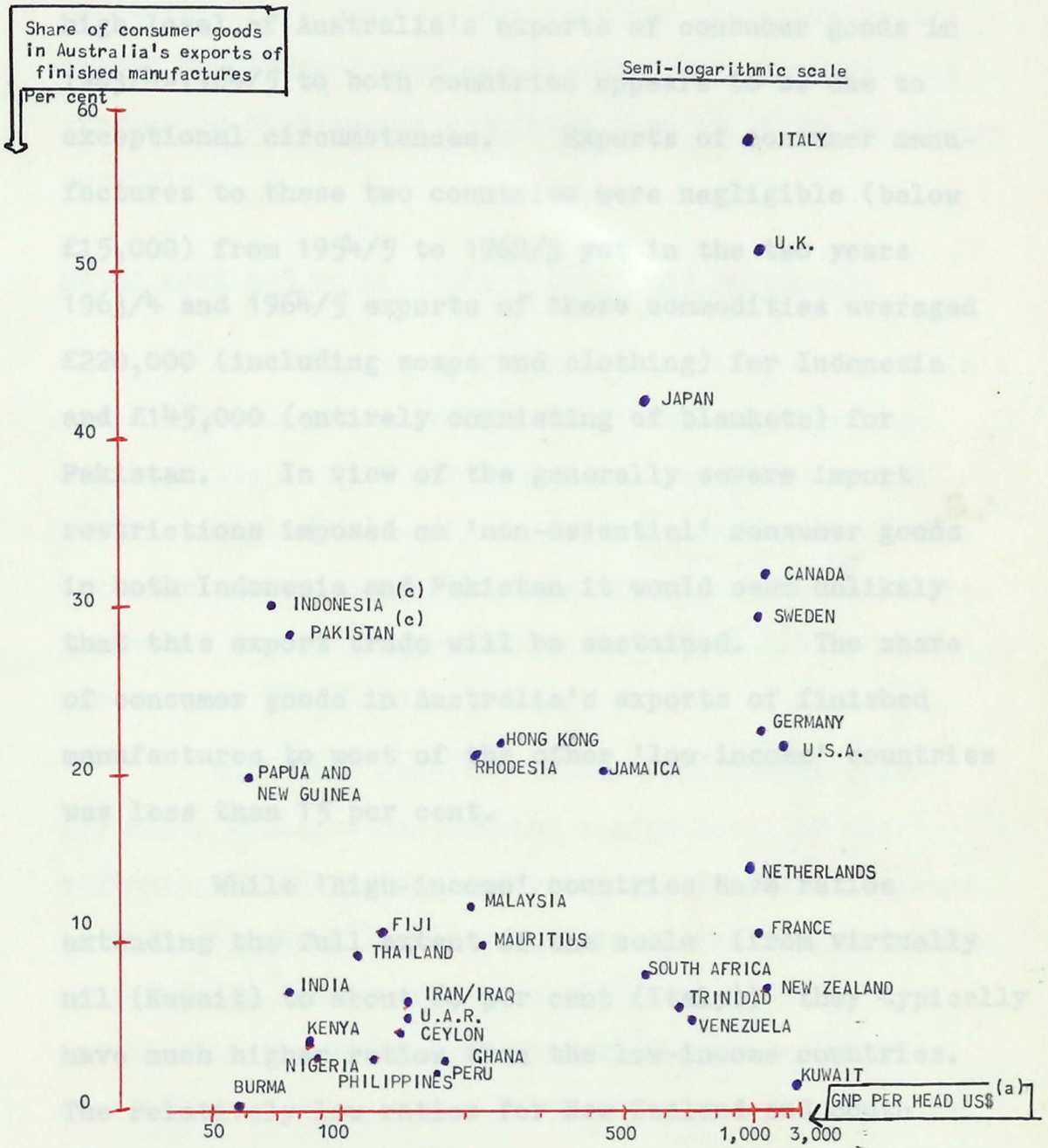
While no significant statistical relationship was established,[53] nevertheless some valid generalisations can be made. First, as can be seen in Fig. 3.5 the ratio of consumer manufactures to total finished manufactures in Australia's exports to 'low income' countries (say those countries with a G.N.P. per head below $US500 per year) does not exceed 31 per cent. Both Indonesia and Pakistan have high ratios compared with other countries

---

52. These estimates could not be obtained for nine Oceanian countries accounting in total for 4.1 per cent of Australia's exports of finished manufactures in 1963/4-1964/5.

53. The correlation co-efficient is $r = .204$

Fig.3.5. RELATION BETWEEN SHARE OF CONSUMER GOODS IN AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES AND THE AVERAGE INCOME PER HEAD[a] IN COUNTRY OF DESTINATION[b], 1963/4 - 1964/5 average



Sources: G.N.P. per head:- H.W. Arndt, "Australia - Developed, Developing or Midway?, The Economic Record, 41, September, 1965, pp.336-338

Australian exports:- Working sheets for Table 3.1.

(a) Estimates relate to recent years (1962 for most countries)

(b) All countries to which the value of Australia's exports of finished manufactures exceeded an average of £A100,000 in 1963/4-1964/5 and for which estimates of G.N.P. per head are available.

(c) The value of consumer manufactures exported to Indonesia and Pakistan was abnormally large in 1963/4 and 1964/5.

on a similar income level but as mentioned above the high level of Australia's exports of consumer goods in 1963/4-1964/5 to both countries appears to be due to exceptional circumstances. Exports of consumer manufactures to these two countries were negligible (below £15,000) from 1954/5 to 1962/3 yet in the two years 1963/4 and 1964/5 exports of these commodities averaged £220,000 (including soaps and clothing) for Indonesia and £145,000 (entirely consisting of blankets) for Pakistan. In view of the generally severe import restrictions imposed on 'non-essential' consumer goods in both Indonesia and Pakistan it would seem unlikely that this export trade will be sustained. The share of consumer goods in Australia's exports of finished manufactures to most of the other 'low-income' countries was less than 15 per cent.

While 'high-income' countries have ratios extending the full extent of the scale (from virtually nil (Kuwait) to about 60 per cent (Italy)) they typically have much higher ratios than the low-income countries. The relatively low ratios for New Zealand and South Africa are probably due to protection of local industry through restrictions.

So it can be said that the strength of demand for Australia's consumer manufactures (relative to the demand for other Australian finished manufactures) is greater in high-income countries than it is in low-income countries.

Motor cars and motor vehicle parts and components

Australia's exports of motor cars, motor vehicle parts and components increased by the extremely high average rate of 21.9 per cent a year over the period 1954/5 to 1964/5 (see Table 3.2). The share of this category in Australia's exports of finished manufactures increased from 11.9 per cent in 1954/5-1955/6 to 25.4 per cent in 1963/4-1964/5.

While the export of motor replacement parts for motor vehicles had reached a high level by the beginning of the period under survey, the major impetus to the subsequent strong growth in Australia's exports of the group 'motor vehicle parts and components' was provided by the establishment overseas of assembly facilities by a major manufacturer in Australia. The first assembly plant by this company was established in 1957 in New Zealand.[54] The large rise in Australia's

54. See "Holden in Hong Kong", General Motors-Holden Pty. Ltd., an undated brochure. p.5.

exports of the category 'motor cars and components' to New Zealand in 1956/7 (evident in Fig. 3.6) was mainly due to the initial shipment of components for this plant.

Assembly facilities were subsequently established in Indonesia (1958/9),[55] South Africa (1960)[56] and the Philippines (1964)[57]. Australia's exports of complete motor cars have also increased rapidly (20.4 per cent a year). At the beginning of the period under survey most of these were destined for New Zealand and, to a lesser extent, the Oceanian islands. However exports have grown at a fast rate to many primary-producing countries outside Oceania. At the end of the period Malaysia, the Philippines, Hong Kong, West Asia, Thailand, Nigeria and Trinidad were large markets for Australian motor cars.

Although most of the exports of complete cars and components over the period under survey have been achieved by one firm, other companies have contributed, particularly in the final years of the period.[58]

---

55. Ibid., p.6.

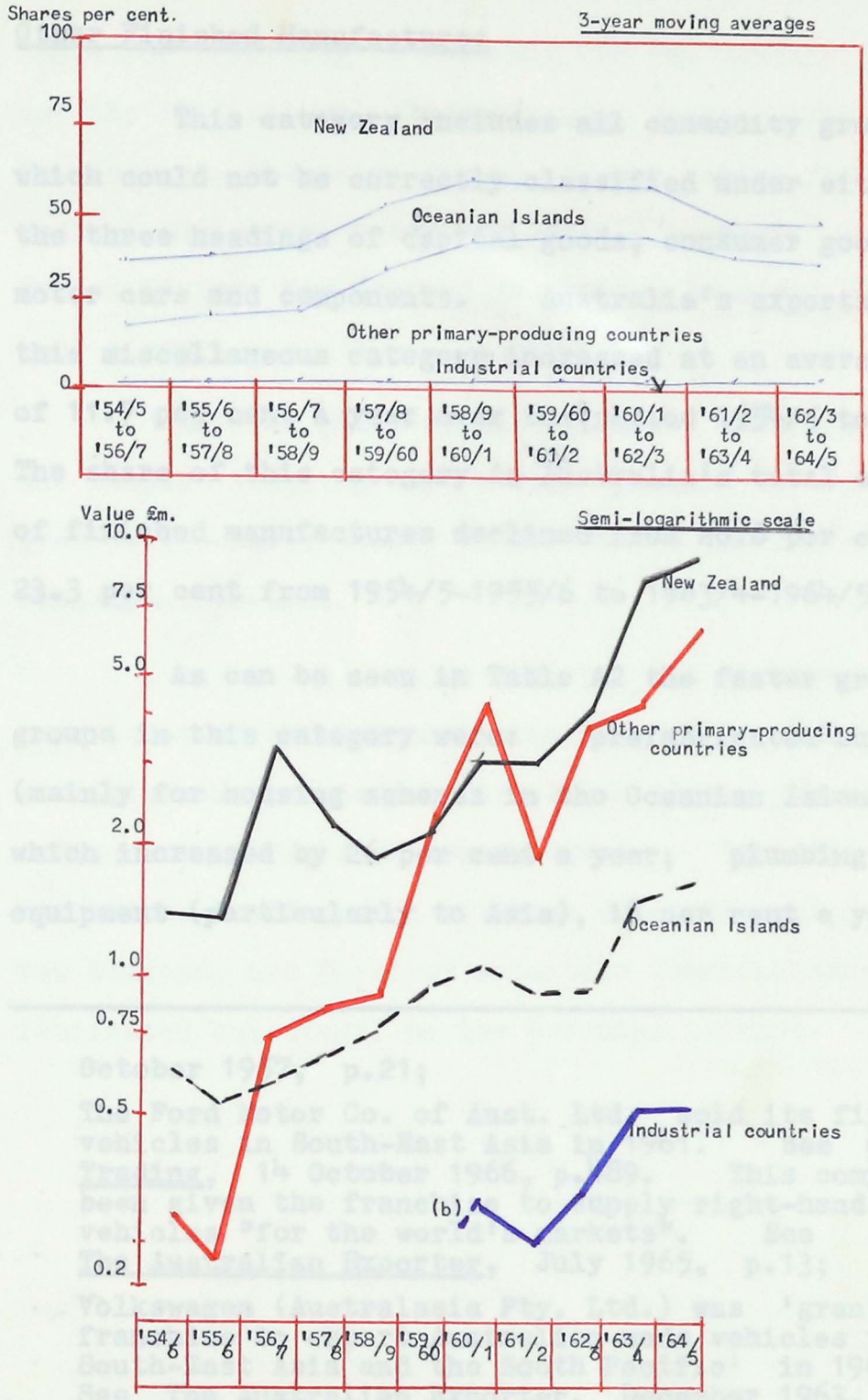
56. Ibid., p.7.

57. Austral News, Singapore edition), September 1964.

58. For instance, the following motor manufacturers have been exporting during the period:

Chrysler Aust. Ltd. was exporting to the Oceania area in 1957. See Australian Exporter, September-

Fig. 3.6. AUSTRALIA: EXPORTS OF MOTOR CARS AND MOTOR VEHICLE PARTS AND COMPONENTS[a] BY MAIN GROUPS OF COUNTRIES OF DESTINATION, 1954/5 to 1964/5



Source: Working sheets for Table 3.2.

(a) Includes complete motor cars, motor vehicle engines, electrical equipment, tyres and tubes and c.k.d. packs for assembly in the country of designation.

(b) Negligible before 1960/1.

Other Finished Manufactures

This category includes all commodity groups which could not be correctly classified under either of the three headings of capital goods, consumer goods or motor cars and components. Australia's exports of this miscellaneous category increased at an average rate of 11.7 per cent a year over the period 1954/5 to 1964/5. The share of this category in Australia's total exports of finished manufactures declined from 28.6 per cent to 23.3 per cent from 1954/5-1955/6 to 1963/4-1964/5.

As can be seen in Table A2 the faster growing groups in this category were: prefabricated buildings (mainly for housing schemes in the Oceanian Islands), which increased by 26 per cent a year; plumbing equipment (particularly to Asia), 18 per cent a year;

October 1957, p.21;

The Ford Motor Co. of Aust. Ltd. sold its first vehicles in South-East Asia in 1961. See Overseas Trading, 14 October 1966, p.489. This company has been given the franchise to supply right-hand-drive vehicles "for the world's markets". See The Australian Exporter, July 1965, p.13;

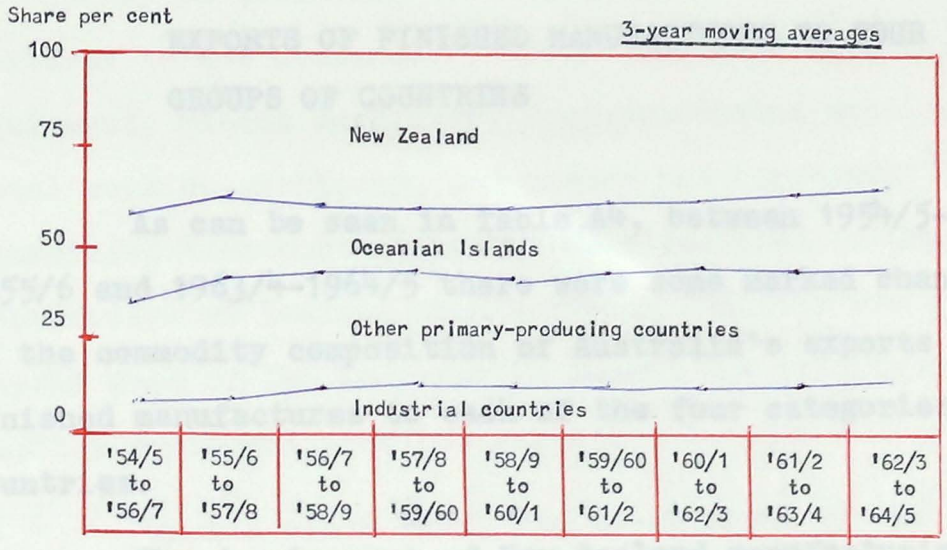
Volkswagen (Australasia Pty. Ltd.) was 'granted the franchise to export Australian-made vehicles to South-East Asia and the South Pacific' in 1963. See The Australian Exporter, December 1963. In 1963 'nearly 1,000 sedans' were being exported to New Zealand in c.k.d. (completely knocked-down) packs. See Austral News, (Wellington edition); November 1963, p.1.

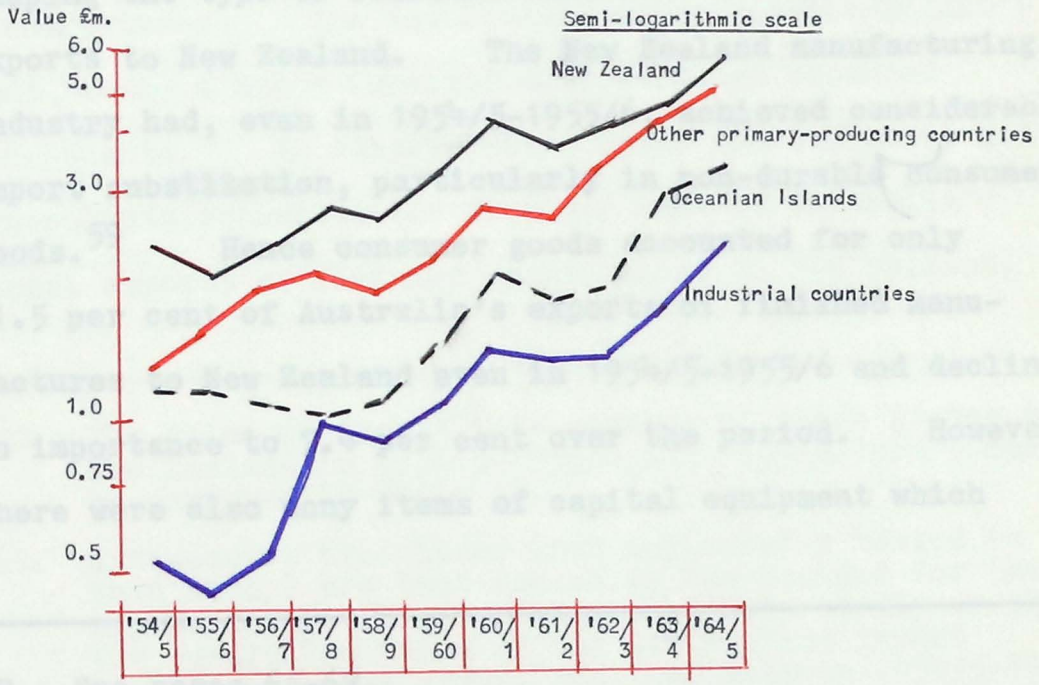
tools for inserting in machines (to New Zealand, Canada and the Philippines) 22 per cent a year; arms (to New Zealand, Malaysia, Ghana) 52 per cent a year; and medical and dental materials (mainly sutures, to the United States, New Zealand and United Kingdom), 27 per cent a year.

Exports of miscellaneous metal manufactures, the largest single group in this category in 1954/5-1955/6 grew particularly slowly (8 per cent a year) over the subsequent period.

As can be seen in Fig. 3.7, the decline in the importance of the Oceanian area was not as marked in this miscellaneous category as in either of the other three categories of finished manufactures. This was largely due to the rapid growth of drugs and unexposed film to New Zealand, and building materials (particularly pre-fabricated buildings) to the Oceanian islands.

Fig. 3.7. AUSTRALIA: EXPORTS OF 'OTHER' FINISHED MANUFACTURES[(a)] BY MAIN GROUPS OF COUNTRIES OF DESTINATION, 1954/5 to 1964/5





Source: Working sheets for Table 3.2.

(a) Including hardware, tools, drugs, scientific instruments, furniture.

III THE COMMODITY STRUCTURE OF AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES TO FOUR GROUPS OF COUNTRIES

As can be seen in Table A4, between 1954/5-1955/6 and 1963/4-1964/5 there were some marked changes in the commodity composition of Australia's exports of finished manufactures to each of the four categories of countries.

The development of New Zealand manufacturing capacity together with the effects of stringent import licensing restrictions appear to be the main factors shaping the type of finished manufactures which Australia exports to New Zealand. The New Zealand manufacturing industry had, even in 1954/5-1955/6, achieved considerable import substitution, particularly in non-durable consumer goods.[59] Hence consumer goods accounted for only 11.5 per cent of Australia's exports of finished manufactures to New Zealand even in 1954/5-1955/6 and declined in importance to 7.4 per cent over the period. However there were also many items of capital equipment which

---

59. See pages 65-67.

declined in importance (i.e. which failed to increase as rapidly as Australia's total exports of finished manufactures to New Zealand). These included agricultural equipment, mining machinery, food processing machinery, metal working machinery, and cranes and conveyors.[60] Commercial transport equipment also declined in importance. Apparently New Zealand manufacturing industry was able to supply much of the increase in demand for this type of capital equipment over the period.[61]

On the other hand, the development of the New Zealand durable consumer goods industries (including motor vehicles) has provided Australia with a rapidly growing market for components of durable finished manufactures. The New Zealand motor vehicle industry has become a major importer of Australian produced components. In 1963/4-1964/5 motor vehicle parts and components accounted for 28.8 per cent of Australia's total exports of finished manufactures to New Zealand.

---

60. The value of Australia's exports of these groups to New Zealand in 1954/5-1955/6 and 1963/4-1964/5 can be compared in Table A3.

61. Alternative hypotheses (not empirically tested in this study) are that demand in New Zealand for these types of capital goods increased only slowly or that the Australian share of the New Zealand import market for these groups declined between 1954/5-1955/6 and 1963/4-1964/5.

Exports of components for television receivers (included in the 'electrical and communications'category) and refrigerators (included in the durable consumer goods group) have also increased strongly.

While in the period under survey the demand for components by New Zealand manufacturing industry has provided the main impetus for the growth in Australia's exports of finished manufactures to New Zealand, it should be noted that the government is pursuing a policy of 'manufacture in depth' by New Zealand manufacturing industry. For instance, the manufacture of television tubes and other components for the electrical goods industry in particular is being 'deliberately encouraged' by the authorities.[62] This policy has been seen as 'one of the most important influences on the future development of the (electrical household durable goods) industry in New Zealand.'[63] It can be expected, therefore, that the range of components produced by New Zealand manufacturing industry will be progressively extended.

The characteristic feature of Australia's exports of consumer goods to the Oceanian islands is the high

---

62. D.O. Sewell "Electric Household Durable Goods", New Zealand Institute of Economic Research (Inc.), (Wellington), 1965, Research Paper No.7, pp.35,36.

63. Ibid., p.36.

share of non-durable goods (such as clothing, footwear and soaps). In 1954/5-1955/6 non-durable consumer goods represented 13.5 per cent of Australia's total exports of finished manufactures to the Oceanian Islands. Durable goods (such as refrigerators and other household appliances) accounted for a further 7.3 per cent. (See Table A4.) However by 1963/4-1964/5 these shares had fallen to 10.8 per cent and 6.8 per cent respectively.

Capital goods increased in importance from 39.3 per cent to 42.0 per cent between 1954/5-1955/6 and 1963/4-1964/5. This was partly due to the rapid rise in the later years of the period under survey in exports to Papua and New Guinea of earthmoving and construction equipment, mining equipment, pumps and power generating and distribution equipment. Unusually large exports of food processing equipment and locomotives to Fiji in 1963/4 and 1964/5 also contributed.

Imports of these types of capital goods into Papua and New Guinea and Fiji increased rapidly in the final three years of the period under survey.[64] In Papua and New Guinea the increase in their imports was no doubt

---

64. Australia supplies one half of the imports of capital goods into Papua and New Guinea and one-quarter of these imports into Fiji.

associated with the rapid rise in the level of the Commonwealth grant,[65] which in 1962/3 increased from £17.3 million to £21.0 million (a rise of 21 per cent) and in 1963/4 by a further £4.2 million (an increase of 20 per cent).[66] These rises were greater both in absolute terms and in percentage terms greater than in any other year of the period under survey. Expenditure from revenue by the Administration recorded a similar acceleration in these years, increasing by 16 per cent in 1962/3 and a further 26 per cent in 1963/4.

In Fiji the increase in imports of capital goods appears associated with the development of the sugar industry. Between 1962 and 1965 the Australian-owned company which largely operates this industry spent 'about £5 million' on new plant and equipment, cane transport facilities and on sugar storage.[67]

---

65. As pointed out by R. Kent Wilson, "the size of the Commonwealth grant...(is)...a powerful determining factor in (the) import growth (of New Guinea)". See R. Kent Wilson, "Import Replacement and Industrial Development in New Guinea", a paper presented to the Australian and New Zealand Association for the Advancement of Science, Section G, Melbourne, January 1967, p.3. The same comment is relevant to Papua.

66. Calculated from figures published in annual volumes of the Report of the Territory of Papua and the Report of the Territory of New Guinea (Canberra: Commonwealth of Australia).

67. The Australian Financial Review, Survey of Fiji, 17 December, 1965, p.5.

Within the 'other' finished manufactures category, the building and engineering hardware group increased its share of Australian exports of finished manufactures to the Oceanian islands from 8.7 per cent to 14.5 per cent, mainly due to the rapid growth of prefabricated buildings for housing schemes in Nauru, Gilbert and Ellice Islands, and Papua and New Guinea.

The change in the structure of Australia's exports to primary-producing countries other than Oceania was similar to the changes already noted in Australia's exports to New Zealand. Capital goods declined in importance from 53.0 per cent to 42.3 per cent. However this was almost entirely due to the decline in the level of exports of agricultural equipment to South Africa. The share of agricultural equipment fell from 18.3 per cent of Australia's exports of finished manufactures to these primary-producing countries in 1954/5-1955/6 to 5.9 per cent in 1963/4-1964/5. Earthmoving and construction equipment showed a small rise, from 9.5 per cent to 11.8 per cent.

Motor cars and components increased in importance from 5.6 per cent to 24.3 per cent. The establishment of assembly facilities for Australian produced motor car components in South Africa and Indonesia have been

important in this rapid growth but exports of complete cars have also increased rapidly during the period to a wide range of primary-producing countries outside Oceania.

Consumer goods account for a relatively small proportion of Australia's exports of finished manufactures to these 'other' primary-producing countries, although there was a rise in the share of this category (from 9.1 per cent to 11.0 per cent) between the years 1954/5-1955/6 and 1963/4-1964/5.

Significant changes have also occurred in the commodity composition of Australia's exports of finished manufactures to the industrial countries. Consumer goods, already a high proportion (34.2 per cent) in 1954/5-1955/6 had increased to 40.0 per cent by 1963/4-1964/5. The share of durable consumer goods increased from 25.9 per cent to 32.4 per cent over the same period.

Capital goods maintained a fairly constant share (approximately 31 per cent) in Australia's exports of finished manufactures to industrial countries over the period although there were important shifts in commodity composition within this broad category. The share of non-electrical machinery declined from 26.2 per cent to 17.0 per cent mainly because of the slow growth (relative to other exports of finished manufactures to industrial countries) of earthmoving and construction machinery and

and agricultural machinery. This was offset by the increase in the share of commercial transport (aircraft) and electrical and communication equipment (various types).

Summary and conclusions

Some broad generalizations can be made on the type of finished manufactured commodities which Australia exports to countries at various stages of economic development. While the cross-classification of four types of countries of destination and four main commodity categories used above does not reveal all these relationships, it can be used as a basis for discussion.

Compared with the commodity structure of Australia's exports of finished manufactures to all countries (see the fifth column of Table 3.6 and column nine and ten of the more detailed Table A4), Australia's exports to non-industrialized countries (e.g. the Oceanian Islands) consists of a relatively high proportion of non-durable consumer goods, building and hardware items and commercial transport equipment.[68] Exports to countries

---

68. However, the importance of commercial transport equipment (boats and railway vehicles) may be due to certain advantages which Australia possesses in the Oceania area which it does not possess in other areas of the world. Thus Australia's exports of finished manufactures to non-industrial countries outside the Oceanian islands may not contain a high proportion of commercial transport equipment.

at a higher level of development (these will be included in the category 'other' primary-producing countries) contain a high proportion of such capital goods as machinery for the mining and agricultural and construction industries. Exports of consumer goods form a relatively low proportion.

New Zealand typifies the type of primary-producing countries in which industrialization has succeeded in replacing a wide range of imports of consumer goods, (particularly non-durable goods) and the relatively simple capital goods. Consequently, Australia's exports of finished manufactures to this type of country has a relatively low proportion of capital machinery (particularly agricultural and earthmoving and construction equipment). Consumer goods (particularly non-durables) also form a low proportion. The assembly of durable goods from imported components, under the protection of quantitative import restrictions, has become an important manufacturing activity in these countries. Accordingly the outstanding feature of Australia's exports of finished manufactures to such countries is the high proportion of components, particularly for motor cars and domestic electrical equipment and appliances.

Finally, Australia's exports to the industrialized countries consist of an extremely high proportion of consumer goods (particularly durable consumer goods). Capital goods form a relatively low proportion although within this broad category, the share of commercial transport equipment (entirely aircraft) is high. The category motor cars and parts is a very low proportion and reflects the generally low share of components of all types in Australia's exports to the industrialized countries.

CHAPTER 4

COMPARATIVE TRENDS IN AUSTRALIAN AND 'WORLD' EXPORTS OF FINISHED MANUFACTURES, 1954/5 to 1964/5

The discussion in the previous chapter was restricted to a description of trends in the commodity composition and direction of Australia's exports of finished manufactures. In this chapter, Australia's export performance in finished manufactures is assessed against the growth in world exports of these commodities. Part I compares the trend rates of growth over the whole period 1954/5 and 1964/5. Part II examines the cyclical patterns in Australian and world exports of finished manufactures and assesses the extent to which the fluctuations in the two series differ in timing and amplitude. In order to isolate the main factors contributing to these fluctuations, part II also examines the relationship between the fluctuations in economic activity in the industrial countries and in world commodity trade.[1] Finally, part III studies the change in Australia's export performance which is evident within the period under survey.

---

1. The term 'world commodity trade' used in this chapter refers to total world trade in all commodities.

I TREND RATES OF GROWTH

The value of world commodity trade has in general expanded rapidly during the period, averaging an annual growth rate of 6.7 per cent between 1954 and 1964.[2] The avoidance of the severe trading problems experienced in pre-war years has been attributed mainly to the widespread adoption by governments of policies directed towards maintaining a high rate of economic growth. Additional contributing factors have been the gradual removal of trade controls in the industrial countries of western Europe and the increased flow of funds to developing countries from the advanced countries.[3]

1. TRENDS IN TOTAL EXPORTS OF FINISHED MANUFACTURES

World trade in finished manufactures has been a rapidly growing component of world commodity trade over this period. Exports of finished manufactures of ten major industrial countries[4] (hereafter referred to as 'world' exports of finished manufactures) increased by an annual average of 9.2 per cent over the period.

---

2. Statistics for world trade quoted throughout this chapter relate to calendar years. Australian export statistics relate to fiscal years beginning July.

3. See United Nations, World Economic Survey, 1963, Part I. Trade and Development: Trends, Needs and Policies, (New York), 1964, p.3.

4. These ten industrial countries are listed in Table 2.1.

As can be seen in Table 4.1 and Fig. 4.1. (the latter plotted on semi-logarithmic scale) the individual industrial countries increased their exports of finished manufactures at varying rates.[5] Exports of finished manufactures from both the United States and the United Kingdom grew by the relatively slow average rate of approximately 5 per cent a year. Japan and Italy on the other hand each increased their exports of finished manufactures by the extremely high average rate of about 20 per cent a year. The average growth rates for the exports of finished manufactures from each of the remaining six countries (Canada, Belgium-Luxembourg, France, Netherlands, Germany and Sweden) were remarkably alike, varying only from 11.6 per cent to 13.2 per cent.

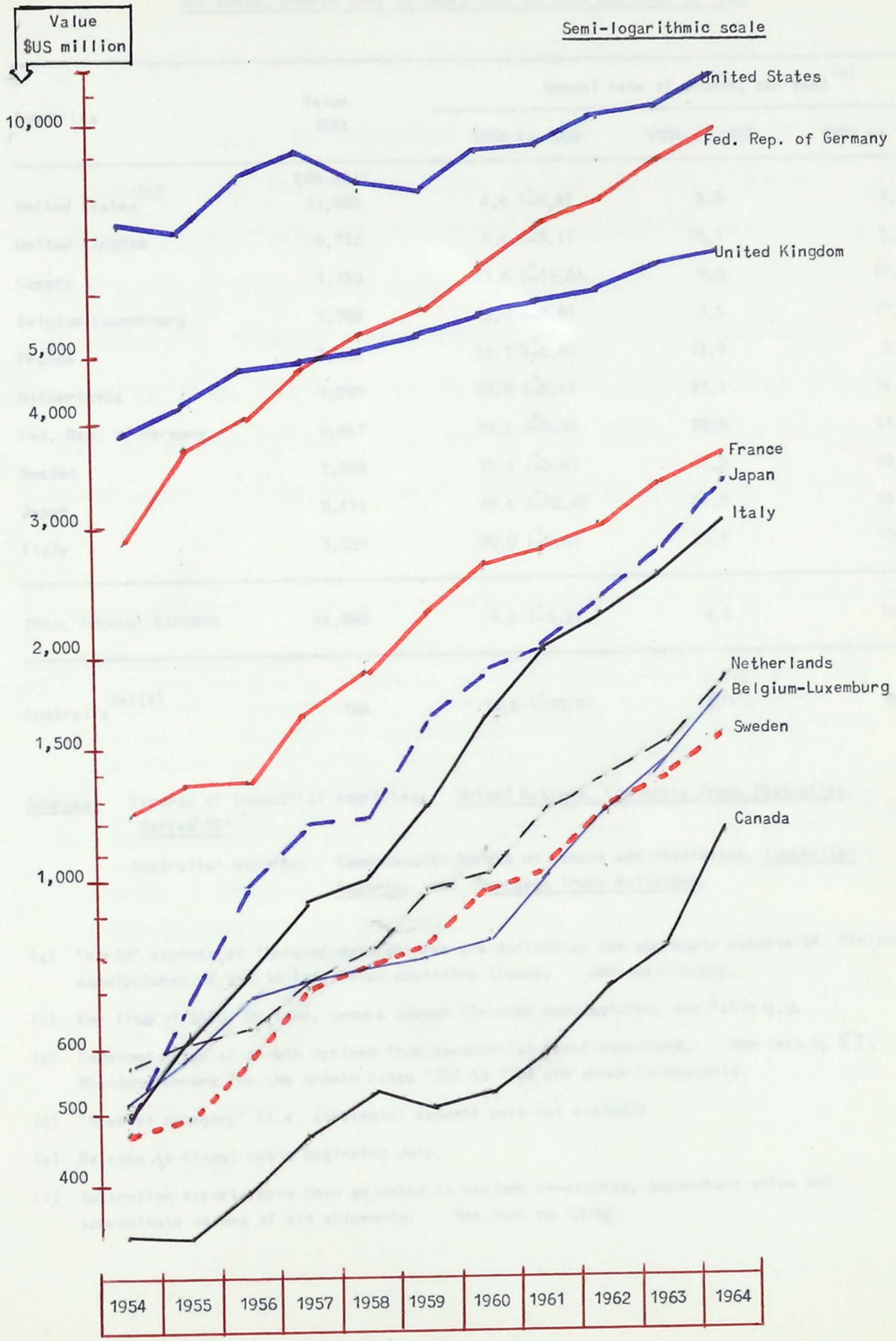
Although the growth in Australia's exports of finished manufactures, at an average rate of 13.3 per cent a year, was considerably higher than the mean rate of growth in 'world' exports of finished manufactures (i.e. 9.2 per cent) it was not markedly higher than the growth in the exports of any of the group of six industrial countries mentioned above.[6]

---

5. Table 4.1 includes, for convenience, other data which will be discussed below.

6. It should be noted that, to maintain comparability with statistics available for 'world' trade in finished manufactures, the commodity composition of Australia's exports of finished manufactures differs

Fig. 4.1. EXPORTS OF FINISHED MANUFACTURES OF 10 MAJOR INDUSTRIAL COUNTRIES, 1954 to 1964



Sources and notes: See Table 4.1.

Table 4.1. 'WORLD'[a] AND AUSTRALIAN EXPORTS OF FINISHED MANUFACTURES[b], VALUE 1964 AND ANNUAL GROWTH 1954 to 1964, 1954 to 1960 and 1959 to 1964

Countries	Value 1964	Annual rate of growth, per cent[c]		
		1954 to 1964	1954 to 1960	1959 to 1964
	$US mill.			
United States[d]	11,963	4.4 (±6.5)	3.3	7.1
United Kingdom	6,732	5.4 (±3.1)	6.1	5.1
Canada	1,156	11.6 (±11.5)	9.0	17.7
Belgium-Luxembourg	1,788	12.0 (±8.9)	8.5	17.7
France	3,604	12.1 (±5.8)	13.9	9.4
Netherlands	1,895	12.9 (±5.1)	11.1	14.2
Fed. Rep. of Germany	9,847	12.3 (±5.2)	13.6	11.3
Sweden	1,559	13.2 (±3.8)	13.2	13.6
Japan	3,416	19.4 (±12.6)	24.5	14.7
Italy	3,038	20.0 (±5.6)	20.9	19.5
TOTAL 'WORLD' EXPORTS	44,998	9.2 (±3.3)	9.0	10.0
Australia[e][f]	164	13.3 (±13.6)	11.0	18.8

Sources: Exports of industrial countries: United Nations, Commodity Trade Statistics, Series "D"

Australian exports: Commonwealth Bureau of Census and Statistics, Australian Exports, and Overseas Trade Bulletins.

(a) 'World' exports of finished manufactures are defined as the aggregate exports of finished manufactures of the 10 industrial countries listed. See text pp 8-9.

(b) For list of SITC, Revised, groups deemed finished manufactures, see Table 4.2.

(c) Compound rates of growth derived from exponential trend equations. See text p. 53. Standard errors for the growth rates 1954 to 1964 are shown in brackets.

(d) 'Special category' (i.e. strategic) exports were not excluded.

(e) Relates to fiscal years beginning July.

(f) Australian exports have been adjusted to exclude re-exports, secondhand ships and approximate values of aid shipments. See text pp. 41-48

2. TRENDS IN EXPORTS OF INDIVIDUAL COMMODITIES

It will be recalled that the statistics on Australian and 'world' exports of individual Standard International Trade Classification commodity categories used in this study are only approximately comparable in coverage.[7] Many individual items of finished manufactures from the Australian export classification can only be approximately related to the SITC. In addition, the commodity composition of Australian exports of some

---

from that used in the previous chapter. The value of Australia's exports of finished manufactures for 1964/5 classified by the economic use categories used in Chapter 3 amounted to £70.9m. compared with a value of £73.8m. when classified by the 28 SITC groups deemed finished manufactures for the purpose of this chapter. There is no significant difference in growth rates however; the trend rate of growth for the former series being 13.4 per cent a year.

As discussed in Chapter 2, the statistics on Australia's exports of finished manufactures used throughout this study exclude approximate values of aid shipments. As these shipments have not increased in value over the decade, the trend rate of growth in Australia's exports of finished manufactures over the period 1954/5 to 1964/5 is reduced (to 12.3 per cent a year) when they are included.

7. See page 41.

categories differs considerably from the composition of the same category in 'world' trade. Moreover, over the period 1954/5 to 1964/5 there were some important changes in the Australian export classification, in the SITC itself[8] and in the basis upon which individual industrial countries report their export statistics to the United Nations.[9] Nevertheless when interpreted with these deficiencies in mind, a comparison with trends in 'world' trade in individual commodity categories can provide a better understanding of the factors responsible for the growth of the respective categories in Australia's exports.

Growth of commodity categories in 'world' trade

First we shall briefly enquire why individual commodities should grow at differing rates in world trade. The view has been advanced that differing rates of growth in world trade in manufactured products are linked with the progress of industrial development.[10] Typically,

---

8. To allow for the major changes in classification over the period, some of the 47 SITC, Revised, groups which were deemed finished manufactures have been amalgamated, making a total of 28 categories. See page 39.

9. See also footnote (e) to Table 4.2 for details of the important changes in commodity classification over the period and the main differences in commodity coverage existing between Australia and 'world' exports of the same categories.

10. "Fast and Slow-growing Products in World Trade", National Institute Economic Review, August 1963, p.22.

a new industry begins in one or two countries. For some years, these countries will be the only suppliers to the world and exports will rise quickly. As the industry becomes established more and more countries will introduce it; exports of the product will begin to rise more slowly than total world trade and new products will take its place as the fastest-growing element in world trade. To support this theory it has been asserted that over the past century the pattern of world trade in manufactures, once dominated by textiles, has been changed by the rapid growth, first of the products of the railway and shipbuilding industries then of the products of automobile and electrical engineering industries.[11]

This description of the underlying reason for the differences in the rates of growth of products in world trade helps explain some of the trends in the commodity composition of 'world' trade revealed below in Fig. 4.2. 'Old' commodity categories such as railway vehicles (key number 7 in the graph), non-motorized road vehicles (including bicycles and trailers) (9), ships and boats (11), pottery (18), textile articles (including blankets and rugs) (15), and agricultural machinery (2)

---

11. Ibid.

are growing more slowly than the 9.2 per cent growth in total 'world' trade in finished manufactures. Similarly, some of the fast-growing categories (particularly office machinery(3) and scientific and optical apparatus(24)) can be considered relatively 'new' products. However there are many exceptions which the theory does not appear to explain. For instance some categories which are growing rapidly in 'world' trade (such as clothing and footwear) are the products of industries which are well established in most countries of the world. However, as the proponent of the theory stressed, important changes may be going on within commodity categories.[12]

Growth of commodity categories in Australia's and 'world' exports

To enable Australia's export performance in industrial commodities to be assessed, the statistics on Australian and 'world' exports of finished manufactures between 1954/5 and 1964/5 (1954 and 1964 for world exports)

---

12. The commodity detail used in this study does not permit a rigorous testing of the theory. For instance the category 'electrical machines and appliances' which is growing in 'world' trade at a rate slightly above the average for total 'world' trade in finished manufactures is an amalgam of 'old' products such as batteries, cables and radio equipment and 'new' products such as electronic equipment.

used in Part I of this chapter have been disaggregated into 26 commodity categories.[13] Annual growth rates were then calculated for these categories in Australian and 'world' exports.

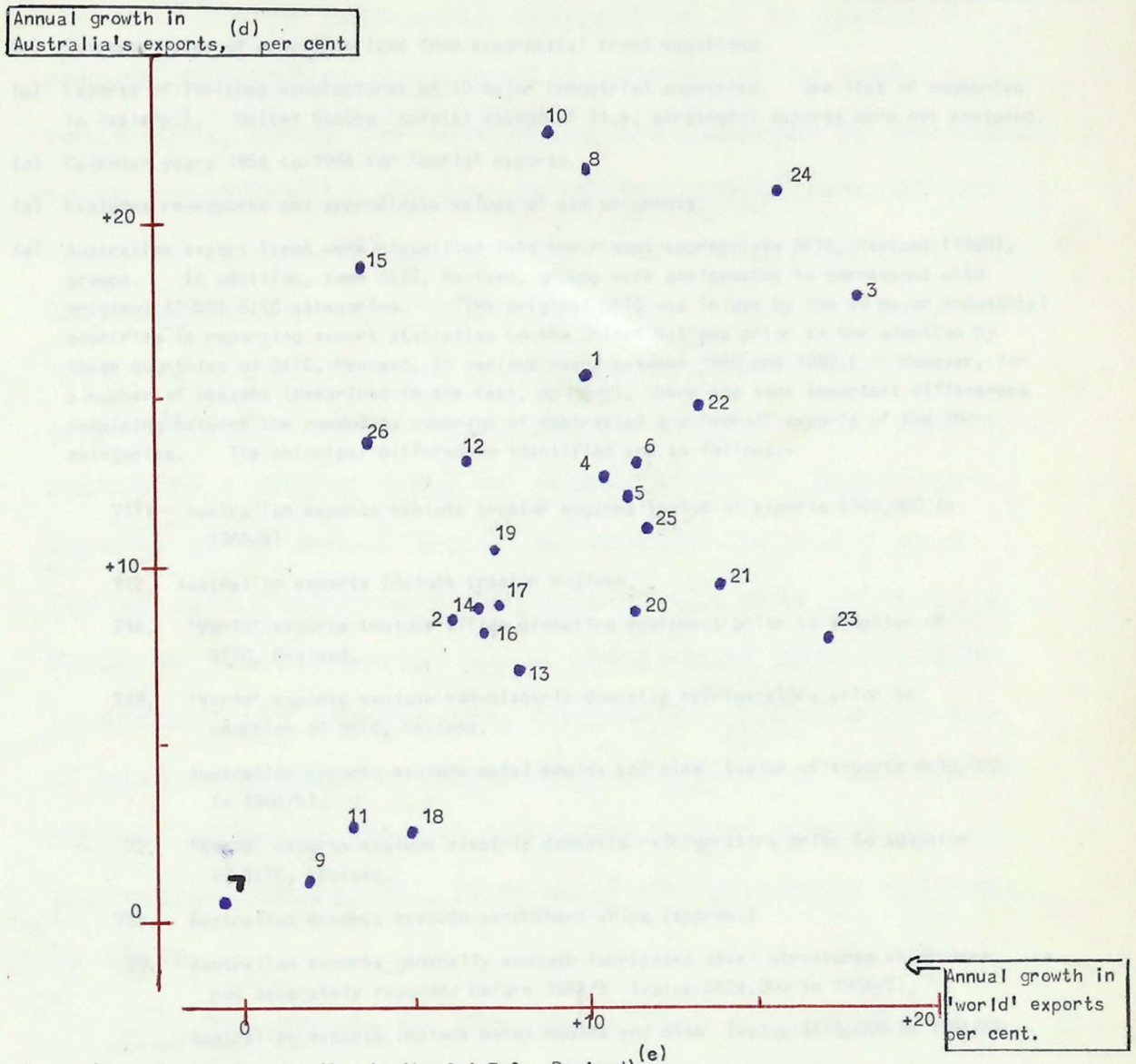
The first conclusion to be drawn from an analysis of the data (plotted in Fig. 4.2) is that there is a positive relationship (albeit a very loose one) between the growth rates of these categories in Australia's exports and in 'world' trade.[14] As can be seen in the diagram, four categories which grew very slowly in 'world' exports (viz. railway vehicles (key number 7), non-motorized road vehicles (9), ships and boats (11), and pottery (18)) also grew slowly in Australia's exports. Certain of the categories (e.g. scientific and optical apparatus (24) and office machinery (3)) were fast-growing both in Australia and 'world' exports. In between these extremes, there were a number of categories which were increasing at moderate rates in both statistical series.

---

13. As set down in Chapter 2 (page 39), 57 commodity groups of the Standard International Trade Classification, Revised (1960), were selected as consisting predominantly of finished manufactures. Some of these were amalgamated to provide a consistent commodity coverage with Original (1950) SITC groups.

14. The correlation co-efficient is $r = .514$.

Fig. 4.2. RELATION BETWEEN ANNUAL GROWTH[(a)] IN AUSTRALIAN AND 'WORLD'[(b)] EXPORTS OF FINISHED MANUFACTURES, BY S.I.T.C. (REVISED) COMMODITY GROUPS, 1954/5 TO 1964/5[(c)]



Key: (Numerical code according to the S.I.T.C., Revised)[(e)]

1. Power generating mach. (711)
2. Agric. mach. (incl. tractors)(712)
3. Office machines (714)
4. Metal working (715)
5. Machinery, n.e.s. (717-9)
6. Electrical mach. (72)
7. Railway vehicles (731)
8. Road motor vehicles (732)
9. Road vehicles, other (733)
10. Aircraft (734)
11. Ships and boats (735)
12. Medicinal prod. (541)
13. Toiletries, soaps (553-4)
14. Rubber articles (629)
15. Textile articles (656)
16. Floorcoverings (657)
17. Glassware (665)
18. Pottery (666)
19. Metal mfrs n.e.s. (69)
20. Furniture (821)
21. Travel goods (831)
22. Clothing (841)
23. Footwear (851)
24. Scientific, optical instr. (861)
25. Photo. supplies (862)
26. Misc. mfrs. (893-896,899)

For Sources and Notes see following page.

Fig. 4.2. - Continued

Sources: 'World' exports: United Nations, Commodity Trade Statistics, Series "D".
Australian exports: Commonwealth Bureau of Census and Statistics, Overseas Trade Bulletins.

(a) Compound rates of growth derived from exponential trend equations.

(b) Exports of finished manufactures of 10 major industrial countries. See list of countries in Table 4.1. United States 'special category' (i.e. strategic) exports were not excluded.

(c) Calendar years 1954 to 1964 for 'world' exports.

(d) Excludes re-exports and approximate values of aid shipments.

(e) Australian export items were classified into their most appropriate SITC, Revised (1960), groups. In addition, some SITC, Revised, groups were amalgamated to correspond with original (1950) SITC categories. (The original SITC was in use by the 10 major industrial countries in reporting export statistics to the United Nations prior to the adoption by these countries of SITC, Revised, in various years between 1960 and 1962.) However, for a number of reasons (described in the text, pp 126-7), there are some important differences remaining between the commodity coverage of Australian and 'world' exports of the 26 categories. The principal differences identified are as follows:-

711. Australian exports exclude tractor engines (value of exports £140,000 in 1963/4)

712. Australian exports include tractor engines.

714. 'World' exports include office dictating equipment prior to adoption of SITC, Revised.

719. 'World' exports exclude non-electric domestic refrigerators prior to adoption of SITC, Revised.

Australian exports exclude metal moulds and dies (value of exports £416,000 in 1964/5).

72. 'World' exports exclude electric domestic refrigerators prior to adoption of SITC, Revised.

735. Australian exports exclude secondhand ships (approx.)

69. Australian exports generally exclude fabricated steel structures which were not separately recorded before 1962/3 (value £424,000 in 1964/5).

Australian exports include metal moulds and dies (value £416,000 in 1964/5).

'World' exports exclude prefabricated buildings prior to adoption of SITC, Revised.

894. 'World' exports exclude non-military arms prior to adoption of SITC, Revised.

899. 'World' exports include electric and non-electric domestic refrigerators prior to adoption of SITC, Revised.

A more systematic examination of Australia's export performance by commodity categories is made in Table 4.2., where the categories are arranged in descending order according to the excess of the growth rate of the category in Australia's exports over the growth rate of the same category in 'world' trade. This array reveals that the higher rate of growth in Australian exports compared with 'world' trade was not dependent on the rapid growth in a narrow range of commodities: Australia's exports of 18 out of the 26 categories increased at a faster rate than 'world' exports of the same categories. Moreover the categories which are growing more rapidly in Australia's exports are, in general, those which are of most importance in Australia's exports. Australian exports of categories at the lower end of the scale (e.g. footwear, travelgoods, furniture) are generally only small in value.

The trends in the composition of Australia's exports of finished manufactures classified on economic use principles have already been described in Chapter 3. However in view of the different classification used in this comparison, it may be of value to briefly set down the main characteristics of Australia's exports of some of the categories listed.

Table 4.2. ANNUAL GROWTH[a] IN AUSTRALIAN AND 'WORLD'[b] EXPORTS OF FINISHED MANUFACTURES, 1954/5 to 1964/5[c] AND VALUE OF AUSTRALIAN EXPORTS, 1964/5, BY SITC (REVISED) COMMODITY GROUPS

Ranked according to excess of growth in Australia's exports compared with 'world' exports

Commodity groups[e]		Growth per cent per annum (1) Australian exports[d]	(2) 'World' exports	(3) Difference (1) minus (2)	Value £A'000 (4) Australian exports 1964/5
656	Made-up textile articles (incl. blankets)	18.9	3.4	15.5	377
734	Aircraft	22.9	8.6	14.3	616
732	Road motor vehicles	21.8	9.8	12.0	17,772
894-9	Mfr. articles n.e.s.	13.8	3.4	10.4	3,190
541	Medicinal and pharmaceutical prod.	12.9	6.2	6.7	4,039
711	Power generating mach.	15.9	9.9	6.0	2,318
861	Scientific, optical apparatus	21.2	15.3	5.9	2,547
691-9	Metal mfrs. n.e.i.	10.7	7.0	3.7	10,632
712	Agricultural mach. (incl. tractors)	8.6	6.0	2.6	3,407
629	Rubber articles n.e.s.	9.0	6.6	2.4	1,243
841	Clothing	15.0	12.8	2.2	1,127
665	Glassware	9.1	7.2	1.9	273
715	Metal working machines	12.7	10.8	1.9	1,047
72	Electrical machinery	13.2	11.4	1.8	8,648
657	Floorcoverings, tapestries	8.4	6.9	1.5	266
717-9	Machinery non-electric n.e.s.	12.3	11.0	1.3	10,731
731	Railway vehicles	0.2	- 0.7	0.9	517
714	Office machines	18.3	17.7	0.6	469
862	Photographic supplies	11.2	11.5	-0.3	1,020
553-4	Soaps, toiletries	7.4	7.8	-0.4	1,360
733	Road vehicles not motor	1.4	1.8	-0.4	59
735	Ships and boats	2.6	3.0	-0.4	529
666	Pottery	2.6	4.6	-2.0	17
821	Furniture	8.9	11.2	-2.3	521
831	Travel goods	9.7	13.7	-4.0	62
851	Footwear	8.4	15.9	-7.5	197

Sources and Notes: See Fig. 4.2.

The very high growth rate in Australia's exports of 'made-up textile articles' (which appears at the top of the list) is primarily due to abnormally large shipments of blankets to Pakistan in 1963/4 and 1964/5. The other categories which appear high on the list are of more significance in Australia's exports. Deliveries of Jindivik pilotless missiles to various industrial countries were mainly responsible for rapid growth in Australia's exports of 'aircraft'. Of particular interest is Australia's export performance in road motor vehicles (including parts and components) which is the most important single category of finished manufactures in Australia's exports and has increased by more than 10 percentage points a year in excess of 'world' trade in the same category.

The miscellaneous category which appears fourth on the list contains a wide range of commodities. The growth in Australia's exports of this category was due in part to the fast-growing components of sporting goods, amusement machines and toys. However the largest single factor in the growth of this miscellaneous category was the rapid increase in the export of arms. Exports of this item exceeded £A1 million in 1962/3 compared with negligible exports before 1960/1. The statistical series on Australian and 'world' exports are not comparable in

respect to this item as non-military arms were not included in the miscellaneous category for 'world' exports until the adoption of the SITC, Revised, between 1960 and 1962.[15] To that extent, the growth in 'world' trade in this category is overestimated.[16]

'Medicinal and pharmaceutical products' have mainly been exported to New Zealand. 'Power generating machinery' includes a range of boilers and engines, including engines and parts for motor vehicles. Australia's exports of slide viewers, and spectacles (to the industrial countries) have been the most rapidly growing components of the category 'scientific and optical instruments and apparatus'. Australia's exports of scientific and laboratory instruments on the other hand have been a slow growing component of this category.

---

15. In the original SITC, all arms had been included in a group reserved for ordnance.

16. Furthermore, there is some doubt whether all of Australia's exports of arms should be classified under this category. Ghana and Malaysia were major destinations, suggesting that the arms were for military use. If this is so, the arms should correctly be grouped with ordnance, a group not included within the definition of finished manufactures. The growth rate in Australia's exports of this miscellaneous category would be reduced accordingly.

Prefabricated buildings, louvre windows and hardware items were the major elements in the relatively high growth in Australia's exports of 'metal manufactures'.[17]

It was noted in the previous chapter that exports of agricultural machinery from Australia were growing by the slow rate of 4 per cent a year.[18] Unfortunately an exact comparison cannot be made with world trade in agricultural machinery by the same definition, mainly because the SITC category includes tractors.[19] However it seems clear that whatever definition of agricultural machinery is used, it is one of the slower-growing categories in world trade in finished manufactures.[20]

---

17. It should be noted that prefabricated buildings were not included in the 'metal manufactures' category in the statistics for 'world' trade until the adoption of the SITC, Revised, by the major industrial countries. To this extent the growth in 'world' trade in this category is (slightly) over-estimated.

18. Page 85.

19. Furthermore, the SITC definition excludes sheepshearing equipment, one of the faster-growing items in Australia's exports of agricultural machinery as defined for Chapter 3.

20. It has been shown elsewhere, for instance, that between the terminal periods 1954-1955 and 1960-1961 agricultural machinery, excluding tractors, increased by 6¾ per cent a year, a similar growth rate to that recorded in Table 4.2 in this study. See "Fast and Slow-Growing Products in World Trade", National Institute Economic Review, August 1963, p.24, Table 2.

This is possibly due to the relatively simple nature of manufacture which encourages the growth of domestic production in countries in the early stages of industrialization. As Australia's exports of tractors (at least some of which are not for agricultural uses)[21] were increasing rapidly (an average of 23 per cent a year) over the period. Australia's exports of 'agricultural machinery' by the SITC definition grew by a faster rate than by the definition used in the previous chapter.

Australia's exports of 'rubber manufactures' consist of various rubber articles including rubber household and surgical gloves. Clothing, noted in the previous chapter as a fast-growing item in Australia's exports, has also grown quickly in 'world' trade.

---

21. The tractors included in a large shipment of earthmoving and construction equipment from Australia to the United Arab Republic in 1964/5, for instance, were apparently rubber-tyred tractor dozers for earthmoving and levelling rather than for use with agricultural implements. See above, Chapter 3, pages 86, 87.

II CYCLICAL FLUCTUATIONS

1. ECONOMIC GROWTH IN INDUSTRIAL COUNTRIES, AND WORLD TRADE IN FINISHED MANUFACTURES

General relationships

There is a close relationship between changes from one year to the next in the level of world trade in finished manufactures on the one hand and changes in the economic growth of the industrial countries on the other. The high level of investment which usually coincides with a production upsurge in the industrial countries gives rise to increased imports of machinery and capital equipment. Again, the higher incomes which result from increased industrial production leads to increased imports of consumer manufactures. Thus an upswing in economic activity in industrial countries provides a stimulus to the growth in world trade in a wide range of finished manufactures. A down-turn or a slackening of growth in the industrial countries has a reverse effect.[22]

---

22. See a discussion which is relevant to the foregoing in The Contracting Parties to the General Agreement on Tariffs and Trade, International Trade, 1957-58, (Geneva) July 1959, pp.96-97.

There is an important 'second-round' effect which tends to reinforce this relationship: the higher demand for raw materials which accompanies an upswing in production in the industrial countries tends to increase both the volume and the export prices of the exports of primary-producing countries.[23] The resulting increase in export earnings of primary-producing countries is generally followed after a short lag by an upswing in their imports of capital goods and (where import licensing restrictions have been sufficiently relaxed), consumer goods. Conversely, when the growth in demand for raw materials subsides in the industrial countries, the sudden fall in export earnings (typically coinciding for a short period with a continued high level of imports) creates severe balance of payments deficits in the primary-producing countries. Normally government measures follow to reduce the level of imports in the primary-producing countries.

It is important for the purposes of this chapter to distinguish between the relative importance in

---

23. However, other factors (such as the effect of variations in climatic conditions on agricultural crops, changes in stockpiling policies by major purchasers, the negotiation or lapse of commodity trade agreements or strikes in mineral or metal producing industries) may for particular commodities in particular years either over-ride or accentuate the effect of changes in economic activity in industrial countries.

particular years of these first-and second-round effects. As we have seen in the previous chapter, primary-producing countries account for over 85 per cent of Australia's exports of finished manufactures.[24] In contrast, the main purchasers of the exports of finished manufactures of the industrial countries are the industrial countries themselves.[25] Accordingly fluctuations in the imports of primary-producing countries can be expected to affect the level of Australia's exports of finished manufactures to a greater degree than the exports of finished manufactures of the industrial countries.

Actual fluctuations 1954 to 1965

Fluctuations in the growth in production in the

---

24. See page 77.

25. This statement is made on the assumption that the direction of the exports of finished manufactures of the industrial countries is similar to the direction of their exports of all manufactures [i.e. SITC Sections 5 to 8 inclusive]: Approximately 73 per cent of their exports of manufactures in 1964 were finished manufactures. Table B5 of "United Kingdom and World Exports of Manufactures in the Past Decade", Board of Trade Journal, 18 November, 1966, pp. XVI, XVII shows that in 1964, 65 per cent of the manufactured exports of industrial countries were destined for other industrial countries. Among the exporting countries, Japan had the lowest proportion (42 per cent) of its exports of manufactures destined for industrial countries.

industrial countries, world commodity trade and 'world' trade in finished manufactures over the period under review can be clearly seen in Fig. 4.3 and Table 4.3. Three sub-periods (1954 to 1958, 1958 to 1961 and 1961 to 1964) can be discerned. Developments within these sub-periods will be discussed in turn. While statistics for 'world' trade in finished manufactures have not been calculated in this study for 1965, brief mention will be made of the trends in trade and 'world' industrial production and the likely growth in world trade in finished manufactures for that year.

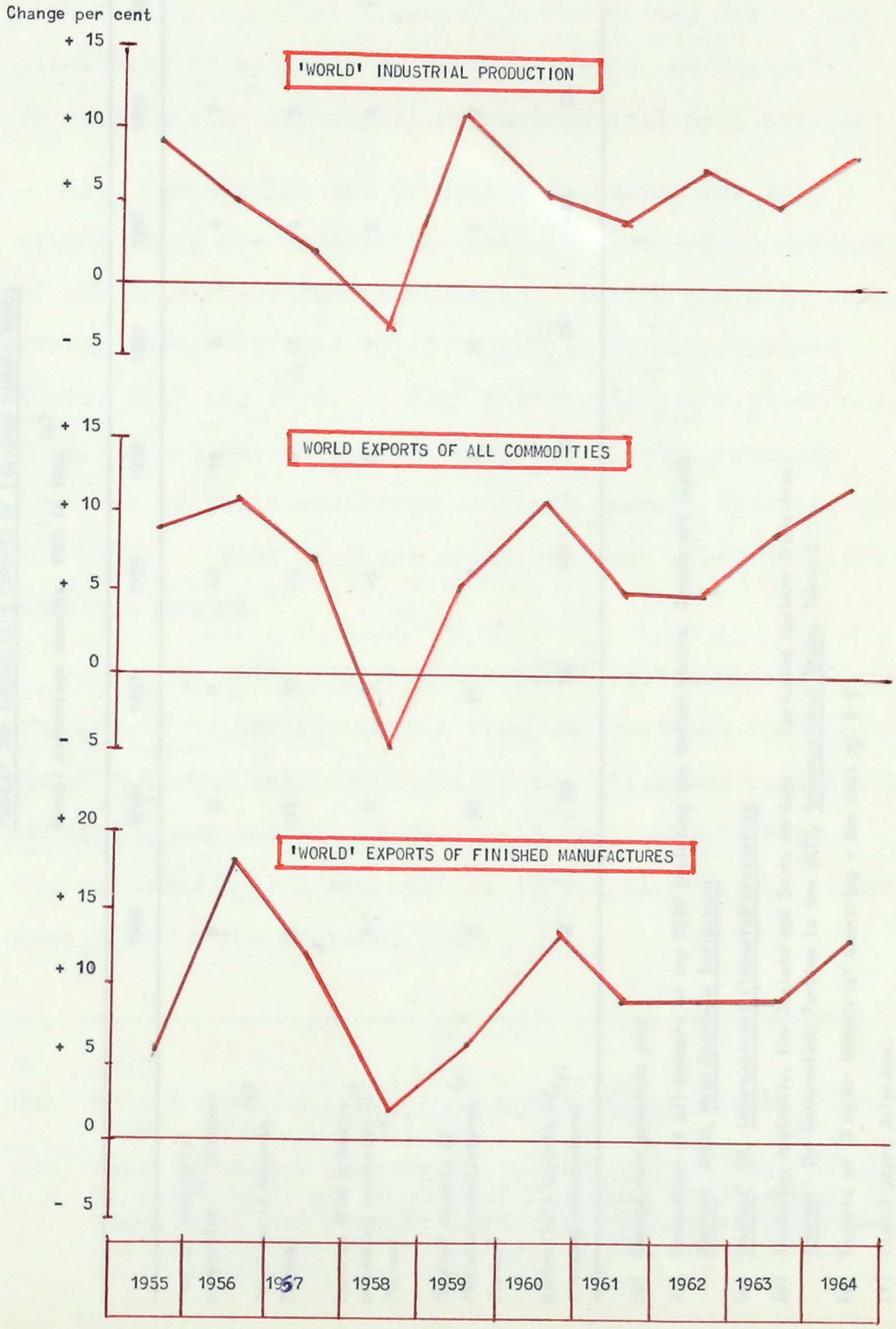
(i) 1954 to 1958

The first cycle in world industrial production began with the recovery from the recession in world economic activity which followed the end of the Korean war.[26] 'World' industrial production rose by the high rate of 9 per cent in 1955 and continued to rise (although more slowly) in 1956. World commodity trade, stimulated in particular by a quick up-turn in United States imports, increased rapidly during this period, with 'world' trade in finished manufactures rising by 18 per cent in 1956.

---

26. See The Contracting Parties to the Geneva Agreement on Tariffs and Trade, International Trade 1957-58, (Geneva), July 1959, p.97.

Fig. 4, 3 ANNUAL PERCENTAGE CHANGES IN 'WORLD' INDUSTRIAL PRODUCTION, EXPORTS OF ALL COMMODITIES AND EXPORTS OF FINISHED MANUFACTURES



Sources and Notes: See Table 43.

Table 4.3. 'WORLD' INDUSTRIAL PRODUCTION AND EXPORTS, EXPORTS OF PRIMARY-PRODUCING COUNTRIES, AND 'WORLD' AND AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES

Annual percentage changes 1955 to 1964 (a)

	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
'World' industrial production (b) (Volume)	9	5	2	-3	11	6	4	7	5	7
Total world exports (c) (Value)	9	11	7	-5	6	11	5	5	9	12
Exports from primary-producing countries (d) (Value)	7	5	3	-5	6	5	2	4	10	9
'World' exports of finished manufactures (e) (Value)	7	18	11	2	6	13	9	9	9	13
Australia's exports of finished manufactures (f)	-2	23	18	-11	17	33	-11	24	40	19

(a) Change over previous year

(b) Production of all members of the OECD including the United States, Canada and Japan.
Source: OECD, Main Economic Indicators

(c) Source: UN, International Financial Statistics

(d) Including Australia, New Zealand and South Africa. Excluding Eastern Trade Area
Source: The Contracting Parties to the GATT, International Trade, Table D

(e) Exports of 10 major industrial countries - See text pp. 8-9

(f) Fiscal years July-June.
Source: Table 4.1. p.

Growth in 'world' industrial activity then began to decline with falling industrial output in the United States and a slackening of activity in Western Europe and Japan.[27] In 1958 'world' industrial production fell by 3 per cent.

Following the downswing in demand for raw materials in the industrial countries the export earnings of the primary-producing countries (which had been rising during 1954, 1955 and 1956) declined fairly steadily during 1957 and 1958. With a widening gap between export receipts and import expenditure, the foreign exchange reserves of these countries declined sharply between 1956 and 1958. Most of these countries took steps to deflate domestic demand.[28]

In these unfavourable world economic conditions, the growth in imports of finished manufactures into both industrial and primary-producing countries was considerably reduced[29] and 'world' trade in finished manufactures increased by only 2 per cent in 1958 following the 11 per cent rise in the previous year.

---

27. Ibid.
28. United Nations, World Economic Survey, 1959, (New York), 1960, pp.181,182.
29. This statement is made on the assumption that changes in the growth of imports of finished manufactures by industrial and primary-producing countries followed a similar pattern to their imports of manufactures. See footnote 25, p. 141.

(ii) 1958 to 1961

'World' industrial activity recovered towards the end of 1958 and was accompanied by a revival in the growth of world trade. 'World' trade in finished manufactures increased by 6 per cent in 1959 and reached a growth of 13 per cent in 1960.

The rate of expansion in most industrial countries, particularly in the United States, had begun to decline during 1960.[30] However Western Europe and Japan were not as severely affected by this recession in the United States economy as they had been during the previous one.[31] Consequently, 'world' industrial production did not fall in 1961 as in 1958 but continued to grow (by 4 per cent). Similarly the growth of 'world' trade in finished manufactures, while declining from the very high rate of 13 per cent in 1960, continued to grow moderately (by 9 per cent) in 1961, sustained by the continued growth in imports of these goods into the industrial countries.

---

30. United Nations, World Economic Survey 1960, (New York), 1961, p.3.

31. This is no doubt a reflection of the general tendency since 1958 for countries in Western Wurope to trade more intensively with one another and so to be more independent of economic fluctuations outside Europe. See United Nations, Economic Survey of Europe, 1964, 1965, p.37.

While the recession in production in industrial countries was mild compared with the previous down-turn, the economies of the primary-producing countries were severely affected. The vulnerability of these countries to recessions in the industrial countries had increased with the gradual reversal of the balance between world supply and demand for primary products over the previous decade. Export prices of primary products had 'failed to show any real strength' in the upswing in activity in the industrial countries in 1959 and 1960 and resumed a downward course in 1961.[32] At the same time, imports of primary-producers (freed temporarily from stringent licensing restrictions) had risen rapidly during 1960 and severe balance of payments difficulties returned to many of these countries. Once again many of the primary-producing countries were forced to reduce the level of their imports.

(iii) 1961 to 1965

The unprecedented period of sustained expansion of the United States economy which followed the 1961

---

32. The account given in this paragraph of trends in the balance of payments of the primary-producing countries has been drawn from United Nations, World Economic Survey, 1960, (New York), 1961, p.3.

recession, coupled with generally high and rising levels of activity in other industrial countries constituted what has been termed "an unusually favourable combination of circumstances for world trade and commodity prices".[33]

In addition to a high level of demand for industrial raw materials which accompanied the buoyant production levels of the industrial countries in this period, their demand for fuel and foodstuffs in Western Europe was increased by a particularly severe winter in 1963.[34] In these circumstances, significant price rises were recorded for many commodities exported by primary-producing countries (e.g. wool, hard fibres, certain oil-seeds, lead and zinc).[35] Export earnings of primary-producing countries rose sharply (by 10 per cent and 9 per cent in 1963 and 1964 respectively).

With imports of finished manufactures by both industrial and primary-producing countries rising strongly, 'world' trade in these commodities rose by the very high rate of 13 per cent in 1964.

---

33. J.O.N. Perkins, Anti-cyclical Policy in Australia 1960-1966, (2nd ed; Melbourne: Melbourne University Press), 1967, p.30.

34. United Nations, Economic Survey of Europe, 1964, p.37.

35. Ibid.

While favourable conditions for growth in 'world' trade in finished manufactures continued in 1965, there was some easing (from 7 per cent in 1964 to 6 per cent in 1965) in the rate of growth in industrial production in the industrial countries. Judging from the growth in 'world' trade in manufactures (which declined from 15 per cent in 1964 to 12 per cent in 1965)[36] there was most probably a slight decline in the growth of 'world' trade in finished manufactures during the course of 1965.

2. 'WORLD' AND AUSTRALIAN EXPORTS OF FINISHED MANUFACTURES

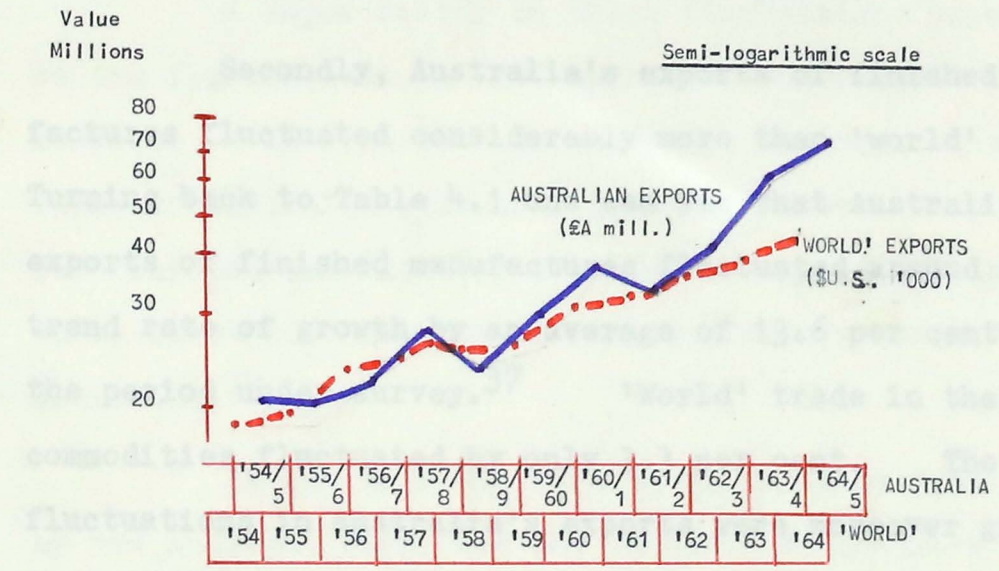
The year-to-year fluctuations in 'world' and Australian exports of finished manufactures can be compared in Table 4.3 and Fig. 4.4. Although the use of calendar years for the statistical series on 'world' trade and fiscal years (beginning July) for Australian exports makes precise comparisons impossible, two main conclusions can confidently be drawn.

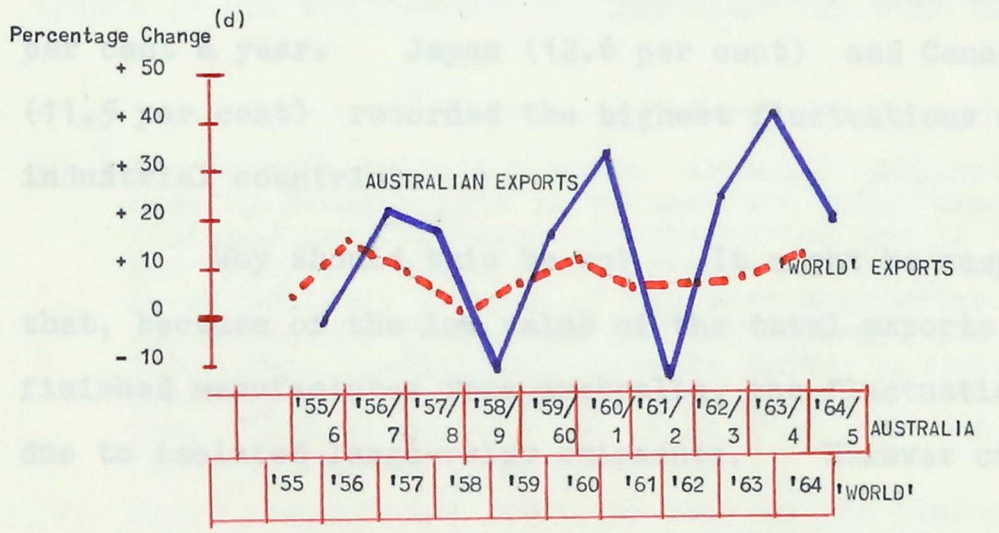
First, the effects of the three recessions in the growth of 'world' trade in finished manufactures (the first of which continued into 1955) can clearly be seen

---

36. For these percentage increases see Table B5 of "United Kingdom and World Exports of Manufactures in the Past Decade", Board of Trade Journal, 18 November 1966, p.xvii.

Fig. 4.4. AUSTRALIAN AND 'WORLD'[a] EXPORTS OF FINISHED MANUFACTURES[b] 1954 to 1964[c]





Sources: See Table 4.1.

(a) Exports of finished manufactures of 10 major industrial countries. See text pp. 8, 9

(b) Australian exports exclude re-exports, secondhand ships and approximate values of aid shipments. See text pp. 41-48

(c) Australian exports relate to fiscal years beginning July.

(d) Percentage change over previous year.

in Australia's exports of these commodities. Australia's exports of finished manufactures declined in 1955/6, 1958/9 and 1961/2 and increased in all other years.

Secondly, Australia's exports of finished manufactures fluctuated considerably more than 'world' exports. Turning back to Table 4.1 one can see that Australia's exports of finished manufactures fluctuated around the trend rate of growth by an average of 13.6 per cent during the period under survey.[37] 'World' trade in these commodities fluctuated by only 3.3 per cent. The fluctuations in Australia's exports were moreover greater than any of the individual ten industrial countries. The exports of finished manufactures of eight of the ten countries listed in the table fluctuated by less than 9 per cent a year. Japan (12.6 per cent) and Canada (11.5 per cent) recorded the highest fluctuations of these industrial countries.

Why should this be so? It might be suspected that, because of the low value of the total exports of finished manufactures from Australia, the fluctuations are due to isolated large-value shipments. However only a

---

37. The standard error of the regression co-efficient is hereby used as a measure of fluctuations around trend rates of growth.

minor part of the fluctuations can be traced to 'abnormal' exports.[38]

A major factor in these fluctuations appears to be the fluctuations in the imports of Australia's major markets. In Figures 4.5a and 4.5b, an index of the value of Australia's exports to each of seven main markets for finished manufactures are plotted against an index of these countries' imports of finished manufactures from all countries.[39]

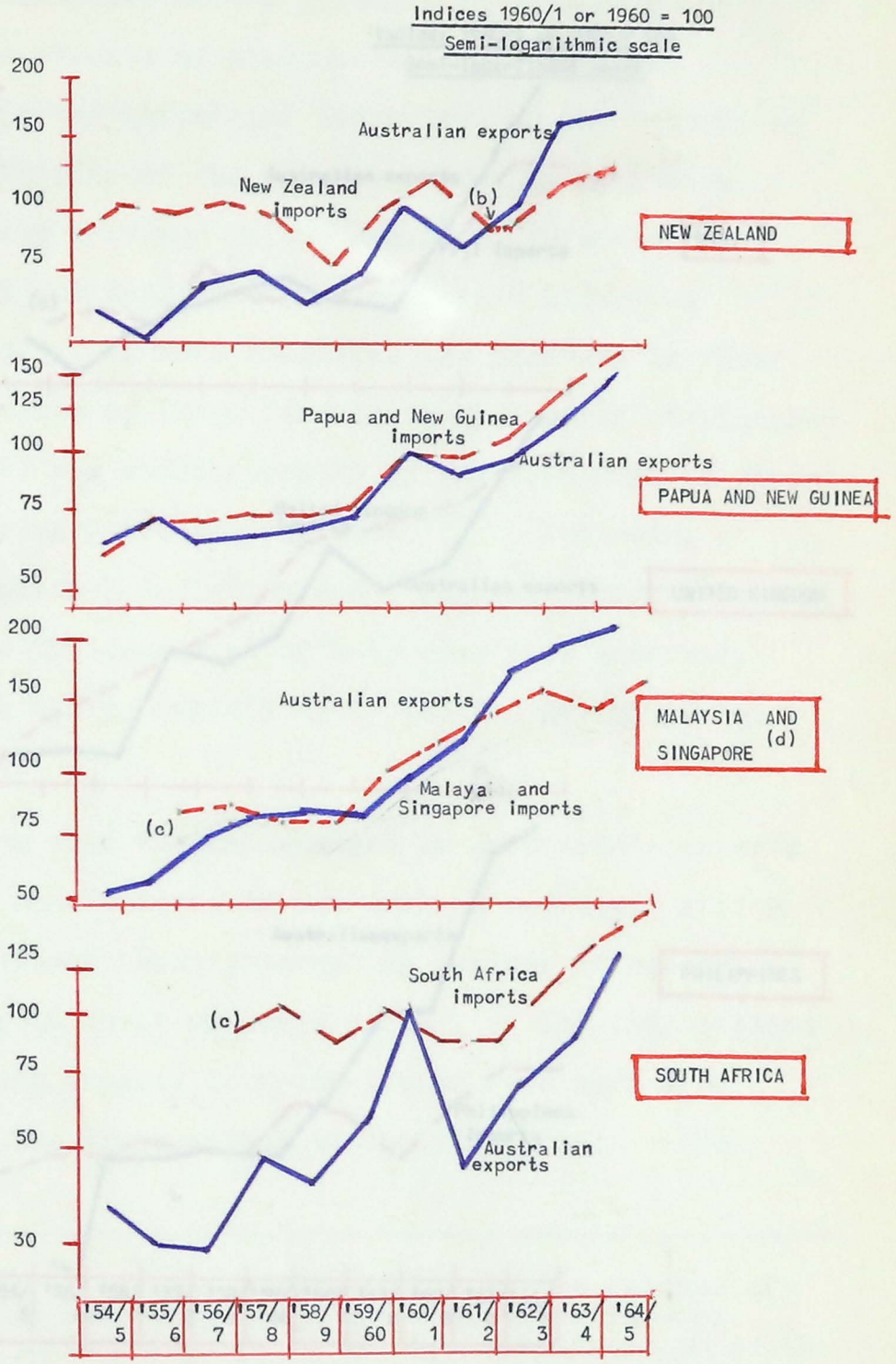
As can be seen, imports of finished manufactures by New Zealand, Papua and New Guinea, South Africa and the Philippines tended to reflect the fluctuations in world trade in finished manufactures over the period. The trends in the New Zealand and South African economies in

---

38. The main contribution which 'abnormal' shipments have made to fluctuations in Australia's total exports of finished manufactures over the period was in 1957/8 and 1958/9: out of the increase in 1957/8 of £4.5m. in Australia's exports of finished manufactures approximately £0.9m. was due to two large shipments. These were Jindivik missiles to Sweden and data processing equipment to Venezuela. In the following year (1958/9) Australia's exports of finished manufactures fell by £3.2m.

39. Exact comparisons cannot be made in the timing of Australia's exports and the imports of these countries for a number of reasons. The most important reason is that, whereas Australia's exports are recorded in fiscal years beginning July, the imports of the following countries are recorded for calendar years:- New Zealand (from 1954 to 1962 - see footnote (f) Table 4.5), Malaya and Singapore, South Africa, Fiji, United Kingdom and the Philippines.

Fig. 4.5a. AUSTRALIAN EXPORTS OF FINISHED MANUFACTURES TO NEW ZEALAND, PAPUA AND NEW GUINEA, MALAYSIA AND SINGAPORE, AND SOUTH AFRICA AND IMPORTS OF THOSE COUNTRIES OF FINISHED MANUFACTURES (a) FROM ALL SOURCES



Sources: See fig. 4.5b.

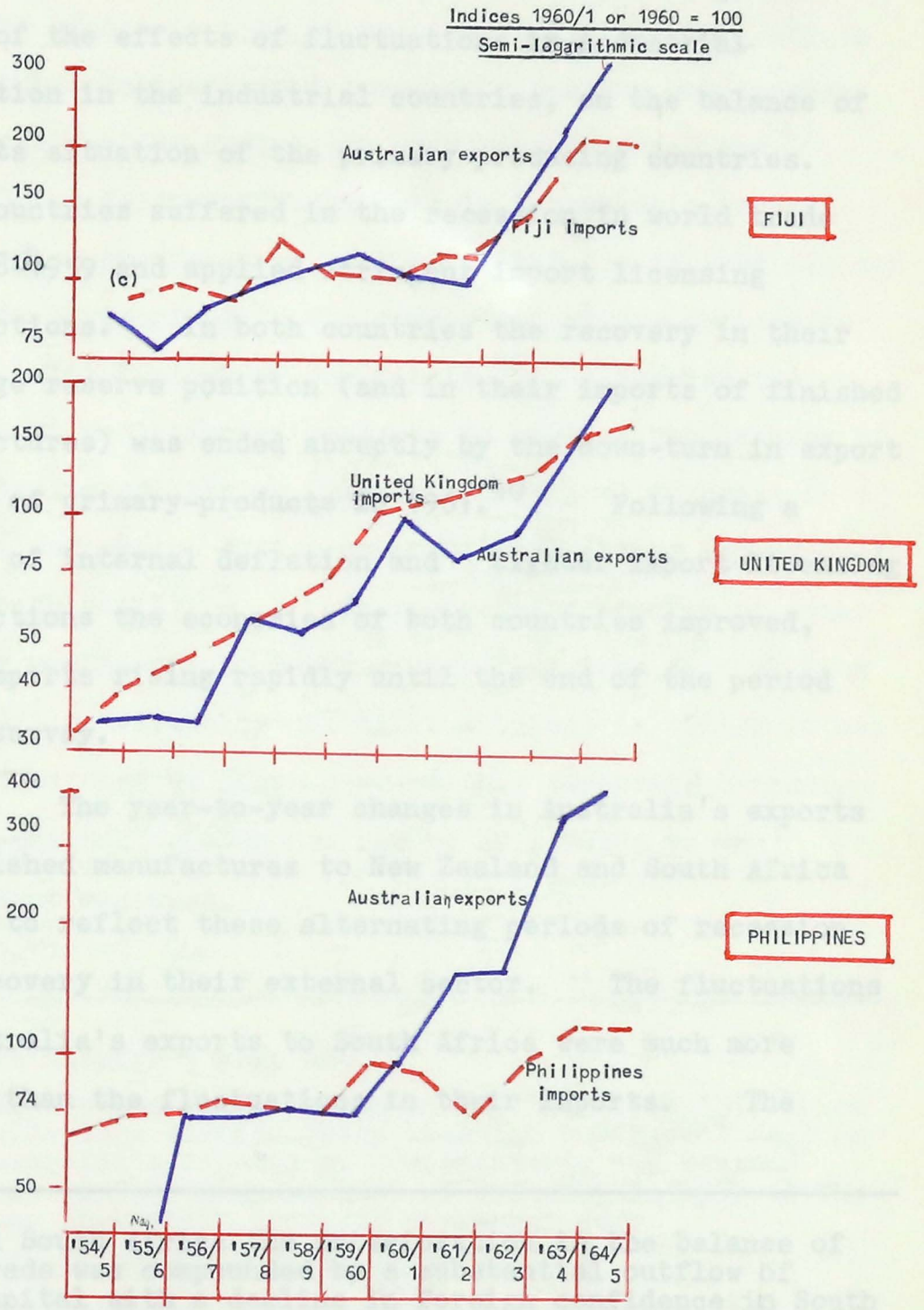
(a) Not entirely comparable in coverage with Australia's exports of finished manufactures. See text pp. 51-52

(b) Change in basis of recording imports. See Table 4.5. footnote (f)

(c) Not available for earlier years.

(d) Imports relate only to Malaya and Singapore.

Fig. 4.5b. AUSTRALIAN EXPORTS OF FINISHED MANUFACTURES TO FIJI, THE UNITED KINGDOM AND THE PHILIPPINES AND THOSE COUNTRIES' TOTAL IMPORTS OF FINISHED MANUFACTURES[a] FROM ALL SOURCES



Sources: Australian exports: Commonwealth Bureau of Census and Statistics, Australian Exports

Imports: United Nations, Yearbook of International Trade Statistics.

Notes: See Fig. 4.5a.

particular conformed to the generalized account given above of the effects of fluctuations in industrial production in the industrial countries, on the balance of payments situation of the primary-producing countries. Both countries suffered in the recession in world trade in 1958-1959 and applied stringent import licensing restrictions. In both countries the recovery in their exchange reserve position (and in their imports of finished manufactures) was ended abruptly by the down-turn in export prices of primary-products in 1961.[40] Following a period of internal deflation and tighter import licensing restrictions the economies of both countries improved, with imports rising rapidly until the end of the period under survey.

The year-to-year changes in Australia's exports of finished manufactures to New Zealand and South Africa tended to reflect these alternating periods of recession and recovery in their external sector. The fluctuations in Australia's exports to South Africa were much more severe than the fluctuations in their imports. The

---

40. In South Africa the deterioration in the balance of trade was compounded by a substantial outflow of capital with a decline in foreign confidence in South African investments. See M.H. De Kock, "Review of the Financial and Economic Situation in South Africa", The South African Journal of Economics, XXIX, 1961, p.176.

sharp rise in Australia's exports of finished manufactures to South Africa in 1959/60 and 1960/1 was due entirely to the initial deliveries of components for the commencement of assembly of an Australian produced passenger car.[41] Most of the following sharp fall in Australia's exports of finished manufactures in the following year (1961/2) can probably be ascribed to the completion of the deliveries of the initial stock of components.[42] However the government deflationary measures to correct the balance of payments disequilibrium in 1961 included an increase in customs and excise duties on motor cars either imported or assembled locally.[43] As Australia's exports of motor vehicle components to South Africa fell from £1.9 million in 1960/1 to virtually nil (£0.1 million) in 1961/2 it can be assumed that at least part of this temporary cessation in shipments of components can be attributed to the government measures.[44]

---

41. See Chapter 3 page 106.

42. Compare the bottom graph in Fig. 3.6 (page107) which reflects a similar sharp rise and subsequent fall in Australia's exports of components to New Zealand prior to the commencement of assembly in 1957 of the same Australian produced passenger car.

43. M.H. De Kock, op. cit., p.177.

44. It is also possible that part of the abnormal shipments in 1960/1 were in anticipation of later government action against the imports of motor vehicle components.

The fluctuations in Australia's exports to New Zealand and South Africa over the period were a major factor in the sharp falls (of 11 per cent) in the total level of Australia's exports of finished manufactures in each of the years 1958/9 and 1961/2. If exports to New Zealand and South Africa are excluded, Australia's exports of finished manufactures to the rest of the world fell by 6 per cent[45] in 1958/9 and 1 per cent in 1961/2.

It is also noticeable from the graphs that imports into most of these major markets for Australia's exports of finished manufactures were either growing rapidly at the end of the period or at least remaining at a high level. This was a reflection of the generally favourable conditions of world trade (with rising export earnings in the primary-producing countries) in the closing years of the period under survey. The effect of this relative prosperity in these markets on Australia's export performance in finished manufactures will be taken up in the following part.

---

45. It has already been noted that two 'abnormal' shipments in 1957/8 accounted for a minor part of the sharp fall in 1958/9. See page 152.

III CHANGES IN AUSTRALIA'S EXPORT PERFORMANCE WITHIN THE PERIOD 1954/5 to 1964/5

1. AN ASSESSMENT

Total exports of finished manufactures

As we have seen, the value of Australia's exports of finished manufactures increased by an average trend rate of growth of 13.3 per cent a year compared with a growth of 9.2 per cent a year in 'world' exports of these commodities. Although the wide fluctuations in the growth of Australia's exports of finished manufactures make it difficult to identify changes in trend within the period, it appears that the higher rate of growth in Australia's exports than in 'world' exports can be mainly attributed to the extremely strong growth in Australia's exports of finished manufactures in the final three years of the period (1962/3, 1963/4 and 1964/5).

In Table 4.1 (above) the growth in Australian and 'world' exports of finished manufactures is shown divided into two sub-periods; from 1954/5 to 1960/1 and from 1959/60 to 1964/5 (hereafter referred to as the 'first period' and the 'second period' respectively). During the first

period Australia's exports of finished manufactures increased at a trend rate of 11.0 per cent a year, not greatly in excess of the 9.0 per cent growth in 'world' trade in these commodities during the comparable period. However, in the second period, whereas the growth in 'world' trade in these commodities increased only slightly to 10.0 per cent a year, the growth in Australia's exports of finished manufactures accelerated to 18.8 per cent a year.

Australia's exports to individual markets

This accelerated growth in Australia's exports of finished manufactures was not restricted to a limited number of countries of destination. The calculations reproduced in Table 4.4 show that the median average annual rate of growth in Australia's exports of finished manufactures to 28 major markets increased from 15.4 per cent in the first period to 25.7 per cent in the second period. The rate of growth in Australia's exports of finished manufactures accelerated in the second period to 20 out of the 28 markets.

Australian and 'world' exports by commodities

The trend rates of growth in Australian and 'world' exports of 26 categories of finished manufactures

Table 4.4. AUSTRALIA: EXPORTS OF FINISHED MANUFACTURES[a] TO 28 MARKETS[b]

	Value[c]		Annual rate of growth[d][e]		
	1954/5-1955/6 Average	1963/4-1964/5 Average	1954/5 to 1964/5	1954/5 to 1960/1	1959/60 to 1964/5
	£A'000	£A'000	%	%	%
New Zealand	8,010	23,420	11.0	7.8	18.0
Papua and New Guinea	3,010	5,920	8.4	6.4	11.8
Malaysia and Singapore	1,470	5,340	14.8	10.1	22.8
United Kingdom	1,030	4,480	16.6	15.1	20.5
South Africa	1,150	3,720	13.5	17.9	12.6
Fiji	820	2,870	11.9	6.6	24.5
Philippines	50	2,230	47.0	60.2	70.2
United States	300	1,810	20.1	22.0	19.7
South Asia[f]	400	1,630	20.8	20.9	6.7
Hong Kong	250	1,550	21.8	11.9	35.5
Thailand	250	1,330	21.1	9.7	32.4
Nauru	105[g]	870	23.9	15.6	30.3
Western Asia[h]	120	770	23.7	19.2	34.0
Japan	160	750	17.5	0.5	47.5
Indonesia[i]	130	720	23.7	38.3	0.7
Canada	60	700	30.2	32.2	30.6
United Arab Republic	25	690	39.3	25.1	93.6
E.E.C.	140	680	19.0	10.5	26.9
South America[j]	30	610	33.1	22.6	54.4
British West Indies[k]	100	560	17.7	17.9	30.0
British East Africa[l]	280	520	7.5	6.2	8.8
Europe, other than E.E.C. and U.K.	50	480	22.7	23.6	39.9
Gilbert and Ellice Isls.	120	440	12.3	3.1	34.1
Nigeria	15	420	39.8	81.6	71.4
New Caledonia	260	330	0.2	-4.0	5.9
New Hebrides	125	240	9.9	17.4	-2.4
Solomon Isls.	130	220	5.3	11.8	1.9
Rhodesia	220	200	1.3	-4.4	5.8
Median annual rate of growth			18.3	15.4	25.7

Sources and notes: See following page.

Table 4.4. - Continued

Source: Working sheets for Table 3.1.

(a) Excludes re-exports and approximate values of aid shipments and secondhand ships.

(b) All countries which accounted for more than 0.5 per cent of Australia's exports of finished manufactures in the average of either 1954/5-1955/6 or 1963/4-1964/5. In addition, some countries to which Australia's exports were below this proportion in both of the pairs of years were grouped into areas based on geographical proximity or economic associations. The countries and groups of countries are arranged in descending order according to the value of Australia's exports of finished manufactures in 1963/4-1964/5.

(c) Rounded figures.

(d) Compound rates of growth derived from exponential trend equations.

(e) Underlining denotes that the annual rate of growth 1959/60 to 1964/5 exceeded the rate between 1954/5 to 1960/1.

(f) Exports to Burma, Ceylon, India and Pakistan have not been shown separately as aid shipments, which in some years were a large proportion of Australia's exports of finished manufactures to these countries, cannot be determined exactly.

(g) Single year 1954/5.

(h) Mainly Iraq, Iran, Kuwait and Saudia Arabia.

(i) Including West Irian.

(j) Mainly Venezuela, Peru, Uruguay and Chile.

(k) Mainly Kenya and Tanganyika.

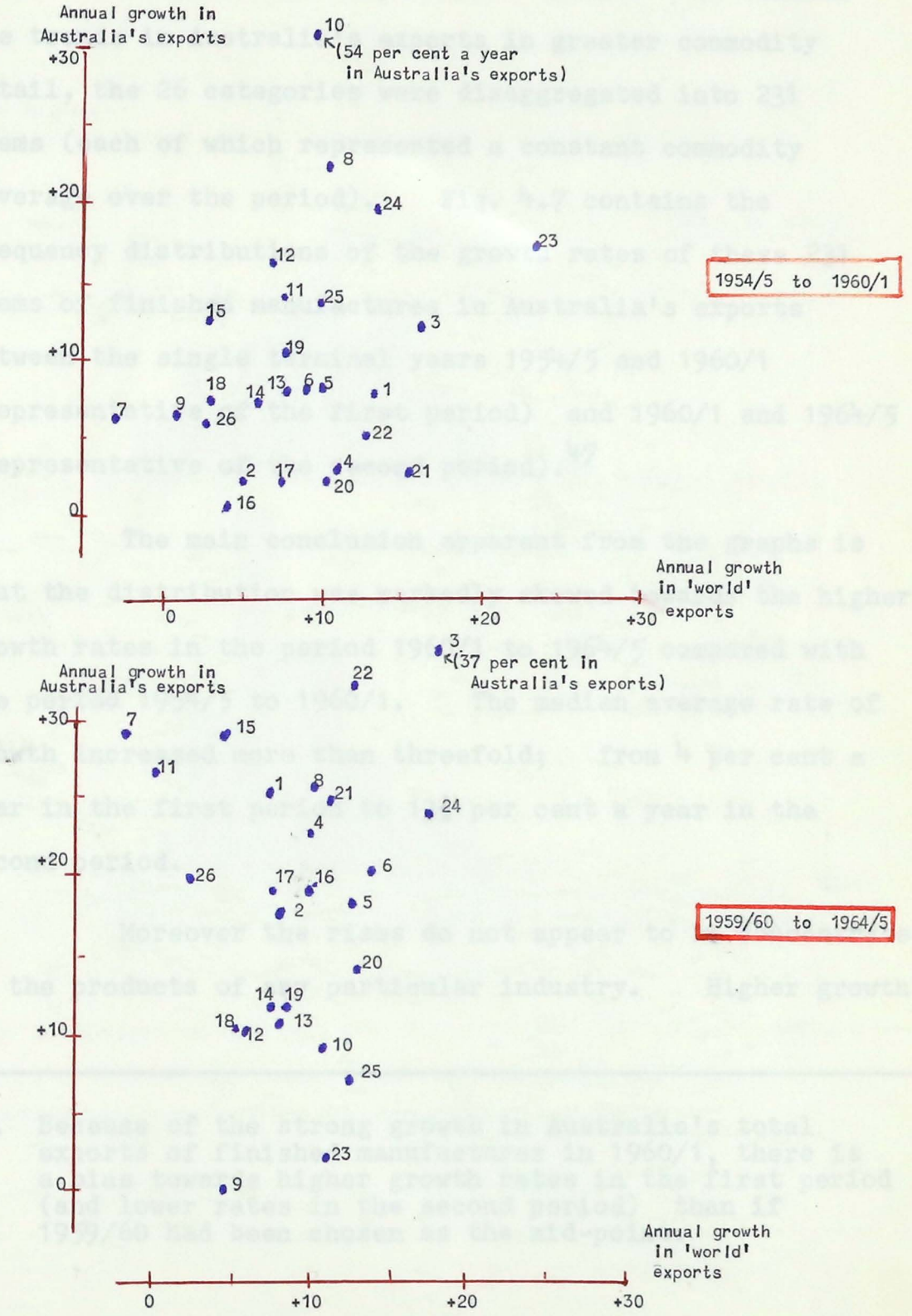
for the two sub-periods are plotted in Fig. 4.6. As these categories were also used for the comparisons of longer term trends in Fig. 4.2. the same commodity key has been used to identify individual categories. It can be clearly seen that Australia's export performance in the majority of commodity categories improved markedly in the second period. In the first period Australia's exports of half of the 26 categories grew faster than the same categories in 'world' trade. In the second period Australia's exports of 22 of the 26 categories increased faster than the same commodities in 'world' trade. The four categories which increased relatively slowly[46] in Australia's exports in the second period were non-motorized road vehicles (key number 9 on the graph), photographic supplies (25), aircraft (10) and footwear (23).

Because of the difficulty in obtaining suitable statistics, comparisons between the growth in Australian and 'world' exports of finished manufactures have not been made in this study in any greater detail than in these 26 categories. However, there is good reason to suspect that the improved performance in Australia's exports of finished manufactures in the second period was reflected

---

46. That is, relative to the growth in 'world' trade of the same commodities.

Fig. 4.6. RELATION BETWEEN ANNUAL GROWTH[(a)] IN AUSTRALIAN AND 'WORLD'[(b)] EXPORTS OF FINISHED MANUFACTURES, BY SITC (REVISED) COMMODITY GROUPS, 1964/5 to 1960/1 and 1959/60 to 1964/5.[(c)]



Sources, notes and key. See Fig. 4.2, p. 131.

in a wide range of narrowly defined items. To examine the trends in Australia's exports in greater commodity detail, the 26 categories were disaggregated into 231 items (each of which represented a constant commodity coverage over the period). Fig. 4.7 contains the frequency distributions of the growth rates of these 231 items of finished manufactures in Australia's exports between the single terminal years 1954/5 and 1960/1 (representative of the first period) and 1960/1 and 1964/5 (representative of the second period).[47]

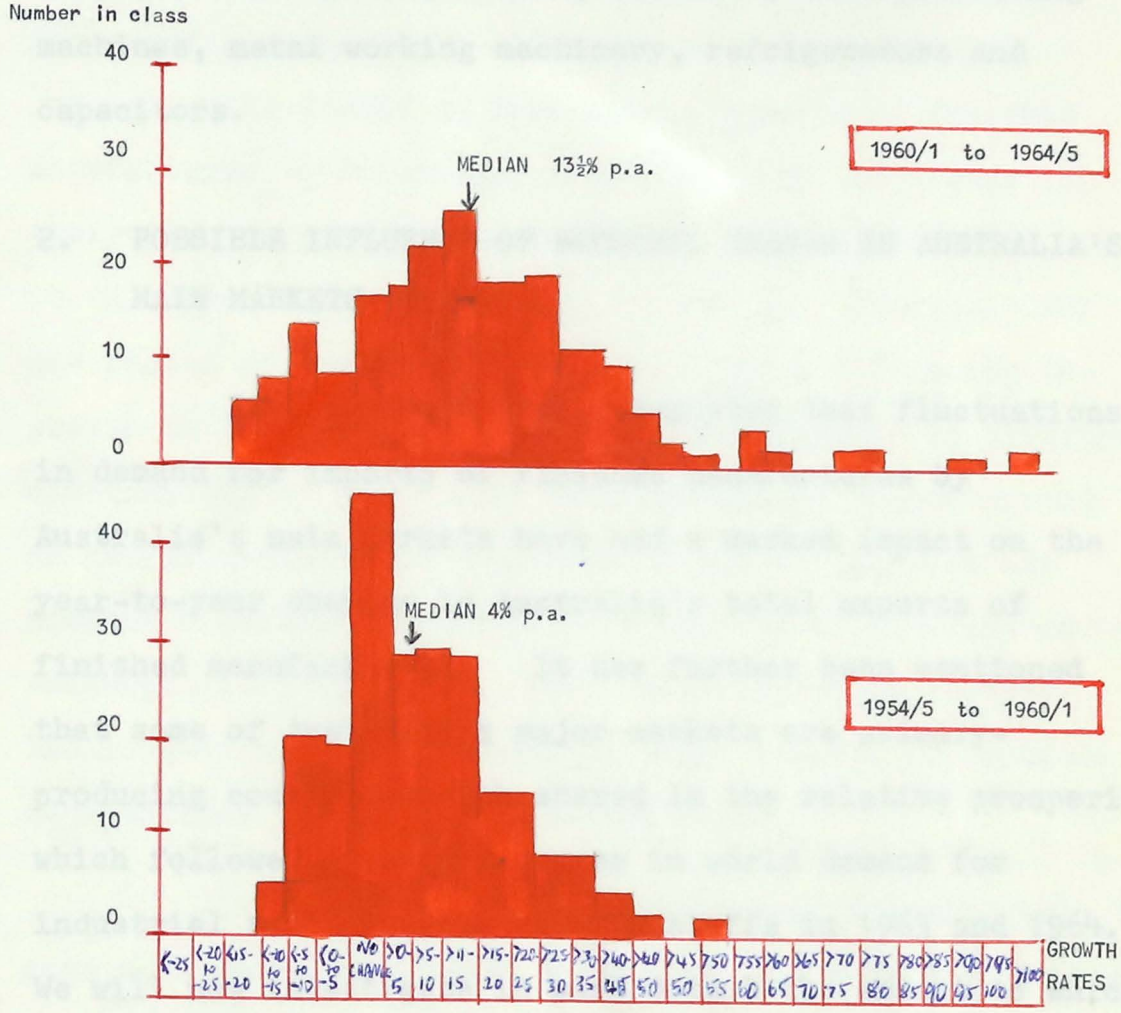
The main conclusion apparent from the graphs is that the distribution was markedly skewed towards the higher growth rates in the period 1960/1 to 1964/5 compared with the period 1954/5 to 1960/1. The median average rate of growth increased more than threefold; from 4 per cent a year in the first period to 13½ per cent a year in the second period.

Moreover the rises do not appear to be concentrated in the products of any particular industry. Higher growth

---

47. Because of the strong growth in Australia's total exports of finished manufactures in 1960/1, there is a bias towards higher growth rates in the first period (and lower rates in the second period) than if 1959/60 had been chosen as the mid-point.

Fig. 4.7. FREQUENCY DISTRIBUTION OF 231 ITEMS[a] IN AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES BY ANNUAL RATES OF GROWTH[b], 1954/5 to 1960/1 and 1960/1 to 1964/5



Source: Working sheets for Table 3.1.

(a) Adjusted for classification changes between 1954/5 and 1964/5.

(b) Compound rates of growth derived from changes between terminal years.

rates were recorded in the second period in such diverse items as toilet soaps, towels, prefabricated buildings, carpets, lawn mowers, milking machines, food processing machines, metal working machinery, refrigerators and capacitors.

2. POSSIBLE INFLUENCE OF ECONOMIC TRENDS IN AUSTRALIA'S MAIN MARKETS

It has already been suggested that fluctuations in demand for imports of finished manufactures by Australia's main markets have had a marked impact on the year-to-year changes in Australia's total exports of finished manufactures. It has further been mentioned that some of Australia's major markets are primary-producing countries which shared in the relative prosperity which followed a sharp increase in world demand for industrial raw materials and foodstuffs in 1963 and 1964.[48] We will now investigate in more detail the extent to which the demand for imports of finished manufactures into Australia's seven main markets changed during the period 1954/5 to 1964/5 and make a preliminary assessment of the effect of any change on Australia's export performance in finished manufactures during the period.

---

48. See page 157.

The trend rates of growth of the imports of finished manufactures from all sources by Australia's seven major markets are shown in Table 4.5. For a number of reasons it is difficult to relate with any precision the trends in Australia's exports of finished manufactures to individual countries with the trends in their imports of these commodities. A major difficulty is to choose terminal years which are not 'abnormal' for one reason or another. Because of this difficulty the growth in the imports of finished manufactures in alternative combinations of years have been calculated to correspond as nearly as possible with each of the two sub-periods already discerned in Australia's exports of finished manufactures (i.e. 1954/5 to 1960/1 and 1959/60 to 1964/5). The long-term rate of growth in their imports of finished manufactures is also shown in the table.

In spite of the uncertainties of matching the same combinations of years in Australia's exports with the imports of these countries it appears that there was a marked acceleration in the second period in the growth of imports of finished manufactures into New Zealand, Papua and New Guinea, Fiji and the Philippines.

Table 4.5. ANNUAL GROWTH[a] IN IMPORTS OF FINISHED MANUFACTURES[b] FROM ALL SOURCES BY SEVEN MAIN MARKETS[c] FOR AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES, 1954 to 1964 AND VARIOUS SUB-PERIODS[d]

Per cent per annum

Countries (Share in Australia's exports of finished manufactures 1963/4-1964/5 shown in brackets)		First Period	Second Period	1954 to 1965[e]
New Zealand (35.9 per cent)	1954 to 1960	-0.6		
	1954 to 1961	1.4		
	1959 to 1964/5[f]		(8.0)	
	1960 to 1964/5[f]		(4.6)	
	1954 to 1964/5[f]			(2.3) (±13.5)
Papua and New Guinea (9.1 per cent)	1954/5 to 1960/1	6.4		
	1954/5 to 1961/2	6.4		
	1959/60 to 1964/5		16.2	
	1960/1 to 1964/5		15.5	
	1954/5 to 1964/5			9.6 (±13.1)
Malaysia and Singapore (8.2 per cent)	1956 to 1960	3.2		
	1956 to 1961	6.6		
	1959 to 1964		6.4	
	1960 to 1965		8.9	
	1956 to 1965			9.1 (±10.6)
United Kingdom (6.9 per cent)	1954 to 1960	19.1		
	1959 to 1964		15.0	
	1960 to 1965		11.9	
	1954 to 1965			16.7 (± 7.5)
South Africa (5.7 per cent)	1957 to 1960	-0.2		
	1957 to 1961	-3.8		
	1959 to 1964		9.1	
	1960 to 1965		13.7	
	1957 to 1965			6.6 (±19.8)
Fiji (4.4 per cent)	1955 to 1960	2.7		
	1955 to 1961	6.2		
	1959 to 1964		14.4	
	1960 to 1965		17.5	
	1955 to 1965			8.0 (±17.2)
Philippines (3.4 per cent)	1954 to 1960	4.8		
	1954 to 1961	4.9		
	1959 to 1964		7.1	
	1960 to 1965		9.7	
	1954 to 1965			5.2 (±12.3)

Sources and notes: See following page.

Table 4.5. - continued

Sources: Trade reports of Papus and New Guinea and Fiji; United Nations, Yearbook of International Trade Statistics.

(a) Compound rates of growth derived from exponential trend equations.

(b) Approximately comparable in commodity coverage to the definition of finished manufactures used for statistics on Australia's exports of finished manufactures. See text pp51-52.

(c) Accounting in total for 73.6 per cent of Australia's exports of finished manufactures 1963/4-1964/5.

(d) The sub-periods were chosen to correspond, as far as possible, to the periods into which Australia's exports of finished manufactures are divided in the text (i.e. 1954/5 to 1960/1 and 1959/60 to 1964/5). Appropriate statistics could not be obtained for Malaysia and Singapore for the years 1954 and 1955, South Africa for 1954, 1955 and 1956 nor Fiji for 1954.

(e) Standard errors for the regression co-efficients are shown in brackets.

(f) Linked statistical series. For the years 1954 to 1962 New Zealand imports were recorded in the source used by calendar years. Valuation was based on current domestic value (C.D.V.). From 1962/3, imports were recorded by fiscal years beginning July and valuation was based on C.I.F. (i.e. including insurance and freight). The two series of imports of finished manufactures by New Zealand (i.e. for the years 1954 to 1962 and 1962/3 to 1964/5) were linked on the assumption that the level of imports of finished manufactures, valued on a consistent basis, for the fiscal year 1962/3 was the same as for the calendar year 1962.

The acceleration in the growth of imports of finished manufactures into New Zealand in the second period was particularly important to Australia's export performance. The existence of a three-year cycle of economic activity in the New Zealand economy has been mentioned frequently.[49] Brief periods of growth in the New Zealand economy are normally terminated by severe balance of payments difficulties. Had the New Zealand economy repeated the usual pattern the expansion in their imports which began in mid-1962 would have been reversed during 1964. By mid-1965 the economy would have been 'at or near the trough'.[50] Instead, the sustained buoyancy in export earnings permitted a 'full year of unaccustomed prosperity'.[51]

A similar sustained period of prosperity in the second period appears in other countries. As we have seen in Papua and New Guinea the acceleration in the sustained strong growth in imports was probably mainly due, not so much to prosperity in the export sector but to increased development expenditure in the public sector.[52]

---

49. See, for example, P.G. Elkan, "The New Zealand Economy", The Economic Record, Vol. 41, December 1965, p.481.

50. Ibid.

51. Ibid.

52. Pages 114,115.

South Africa entered on a period of prolonged economic expansion which paralleled that in New Zealand. By the middle of 1965, after four years of continued growth uninterrupted by severe balance of payments difficulties, the 'psychology of the everlasting boom' had taken firm hold among a large section of South African businessmen.[53] While inflationary pressures and balance of payments difficulties began to emerge during 1964/5, the government deflationary action[54] taken in the early months of 1965 did not greatly affect the growth in the level of imports of finished manufactures during 1964/5. As statistics are incomplete for the years representing the first period, it is not possible to make a judgement on the growth rates of South African imports of finished manufactures in the second period compared with the first period. However it is obvious from Fig. 4.5a that the long period of economic prosperity was reflected in an uninterrupted growth of South African imports of finished manufactures.

We have already noted the heavy investment in the Fiji sugar industry between 1962 and 1965,[55] (encouraged no doubt by the extremely high sugar prices of 1963 and early 1964) which was probably a major factor in the growth of their

---

53. G. Rissik, "Review of the Financial and Economic Situation in South Africa", South African Journal of Economics, XXXIV, September, 1965, p.198.

54. Ibid., p.200, 204-6.

55. Above, page 115

imports. As can be seen in Fig. 4.5b imports of finished manufactures declined slightly in 1965 compared with 1964, but were still at an extremely high level compared with the years from 1955 to 1963.

The results of the calculations on imports into Malaya and Singapore are indecisive. As no statistics are available for these countries in the source used for 1954 and 1955 we do not have a full series of years for the first period. Furthermore, the growth rates (Table 4.5) vary considerably according to which years are chosen to terminate the first and second period. Turning to Fig. 4.5a one can see that imports into these two countries taken together fell in 1964 and in 1965 only barely regained the level of 1963.

Imports of finished manufactures into the Philippines declined slightly in 1965 although the level was still high compared with earlier years of the period.

What effect did this prosperity in some of Australia's major markets have on Australia's exports of finished manufactures? A feature of the final upswing in Australia's exports of finished manufactures compared with the two previous upswings was that it persisted for three years (1962/3, 1963/4 and 1964/5) rather than ending abruptly after two years (See Fig. 4.4). Undoubtedly the sustained growth in or high level of the imports of New Zealand, Papua,

and New Guinea, Fiji, the Philippines and South Africa during the final three years of the period provided Australian exporters of finished manufactures with a favourable environment for increasing their exports to these countries. While special factors in each country no doubt contributed to this growth in imports, the major permissive factor was the absence of a downturn in export prices.

Yet the prosperity in Australia's major markets does not appear to explain all of Australia's improved export performance in the second period. As we have seen, the acceleration in Australia's exports was seen in the exports to a wide range of markets, not just the main Australian markets.

Moreover, although as remarked above one must be wary in comparing trends in export statistics with trends in import statistics, it appears that, during the second period Australia's exports of finished manufactures to four out of the six major markets dealt with above increased at a considerably faster rate than their imports of finished manufactures from all sources.[56] For instance, Australia's exports to New Zealand over the second period increased by an average rate of 18 per cent a year (See Table 4.4, column five) whereas New Zealand's imports of these commodities in the same period increased within a range of from 5 to 8 per

56. The exceptions were Papua and New Guinea and South Africa.

cent a year, depending on the years chosen to terminate the period (See Table 4.5). The annual average growth rates for the other three countries were:- Malaya and Singapore, 23 per cent and 6 to 9 per cent respectively; Fiji, 25 per cent and 14 to 18 per cent; Philippines, 70 per cent and 7 to 10 per cent.

In the following chapter we will examine more closely the effect of the growth in Australia's markets on the growth of Australia's exports of finished manufactures in the second period.

CHAPTER 5

MARKET GROWTH AND MARKET 'PENETRATION' 1959/60-1960/1 to 1963/4-1964/5

I INTRODUCTION AND DEFINITIONS

As we have seen, the marked acceleration in the growth of Australia's exports of finished manufactures after 1959/60 was due to an unusually strong, sustained upswing in 1962/3, 1963/4 and 1964/5.[1] It has already been suggested that a contributing factor to this acceleration was the rapid growth in import demand in these years by some of Australia's major markets for finished manufactures (particularly New Zealand, Papua and New Guinea and Fiji).[2] The view was advanced, however, that it seems unlikely that this factor alone was responsible for the change.[3]

The purpose of this chapter is to examine the effect of the growth in other countries' demand for imports of finished manufactures on the growth in Australia's exports of these commodities over the period

---

1. See page 158.
2. See page 172-3
3. See page 173.

(viz. 1959/60-1960/1 to 1963/4-1964/5[4]) in a more comprehensive way than in the previous chapter. Account is taken of the change in imports of individual categories of finished manufactures of all countries to which Australia exports finished manufactures. Each finished manufactured commodity category in the imports of each country is termed a market 'cell'. The share held by Australia in each market 'cell' will be estimated for the equivalent of the Australian export years 1959/60-1960/1 and 1963/4-1964/5.[5] By the use of this data, a hypothetical level of Australia's exports for the years 1963/4-1964/5 will be calculated on the assumption that, while the level of imports of individual categories of finished manufactures by individual countries changed between 1959/60-1960/1 and 1963/4-1964/5, Australia retained the same share of each 'cell' which it held in 1959/60-1960/1.

---

4. As explained below, the method of calculating this effect requires the calculation (or, rather, estimation) of the change in Australia's shares of markets over the period. This is more appropriately calculated between terminal periods rather than by trend rates of growth. The pairs of years 1959/60-1960/1 and 1963/4-1964/5 accordingly have been chosen to represent the period 1959/60 to 1964/5.

5. Due to the difficulties of obtaining suitable statistics it was not possible to estimate Australia's share of the import market for most countries. While another method was adopted the principle remains the same. See pp.185a-186

The hypothetical level for Australia's exports of finished manufactures for 1963/4-1964/5 so obtained will be used to reveal three things. First, the hypothetical level can be regarded as the increase in Australia's exports of finished manufactures between the two periods which can be attributed to the growth in 'Australia's' markets. This can readily be compared with the actual increase achieved over the period.

Secondly, the difference between the hypothetical and the actual levels for Australia's exports of finished manufactures for 1963/4-1964/5 will represent the combined effect of the change in Australia's share of each commodity/market 'cell'. This effect is termed Australia's 'penetration' (either negative or positive) of import markets.

Thirdly, the hypothetical level can be used to determine whether 'Australia's' markets increased at a different rate than world imports. For this purpose a second hypothetical level of Australia's exports of finished manufactures for 1963/4-1964/5 is calculated on the assumption that each of the commodity categories in Australia's exports increased by the same percentage as total world trade in finished manufactures. The difference between the two hypothetical levels is termed

the effect of the change in the commodity/area structure of world trade in finished manufactures.

If the hypothetical level for 1963/4-1964/5 of Australia's exports of finished manufactures as estimated on the first assumption is greater than the hypothetical level as estimated on the second assumption, we would conclude that the change in the commodity/area structure of world trade was favourable to Australia i.e. 'Australia's' markets grew more quickly than 'world' trade in finished manufactures. It should be noted that the first hypothetical level is based on calculations relating to the growth of individual commodity categories into Australia's markets and provides a more accurate indicator of the effect of import demand on Australia's exports than the comparison of growth in the total level of imports of finished manufactures into the marketsalready made in the previous chapter. It is conceivable, for instance, that total imports of finished manufactures into 'Australia's' markets grew over the period by the same percentage as 'world' trade, but that a certain category for which Australia was an important supplier (for instance, road motor vehicles) increased faster than in 'world' trade in finished manufactures. The structure of world trade in finished manufactures would, in this instance, have moved in favour of Australia. Other things being equal, we would expect that Australia's exports would have of that particular category/increased faster than the same category in 'world' trade.

Many studies have been published overseas which have estimated the effects of changes in the commodity/area pattern of world trade in manufactures[6] on the increase in the exports of manufactures of various countries.[7] Part II of this chapter will review the

---

6. While the studies have related to trade in all manufactures (i.e. including semi-manufactures as well as finished manufactures), the findings remain valid for the purposes of this study.

7. See, for example,:-

A. Maizels, Industrial Growth and World Trade, (Cambridge, Cambridge University Press) 1963, pp.198-203;

P.R. Narvekar, "The Role of Competitiveness in Japan's Export Performance, 1956-58". International Monetary Fund Staff Papers, Vol. VIII, December 1961;

United States Department of Commerce, Analysis of Changes in United States Shares of Export Markets for Manufactures 1954-1958, prepared by International Economic Analysis Division, (Washington, D.C.), November, 1959;

S.J. Wells, Britain Export Performance: A Comparative Study, (Cambridge, Cambridge University Press), 1964, pp.6-9;

"World Trade in Manufactures" National Instutute Economic Review No.10, July 1960;

"Trends in Exports of United Kingdom Compared with Other Countries", Board of Trade Journal, (London), 30 March, 1957, pp.671-673;

Helen B. Junz and Rudolf R. Rhomberg, "Prices and Export Performance of Industrial Countries, 1953-63, International Monetary Fund Staff Papers, Vol. XII, July, 1965;

Anne Romanis, "Relative Growth of Exports of Manufactures of United States and Other Industrial Countries", International Monetary Fund Staff Papers, Vo. VIII, May, 1961.

findings of some of these studies to discover whether there is any consistent relationship between the growth in individual countries' markets for manufactures and their export performance. Part III will set out the statistical procedure adopted in this study together with the problems involved in calculating the hypothetical values required. The findings of the present study will then be discussed in Part IV.

II PREVIOUS STUDIES

A major study of the effect of changes in the commodity/area structure of world trade on the level of exports of manufactures of individual countries was undertaken by A. Maizels from statistics on world trade in manufactures compiled for a study on industrial growth and world trade.[8] This study analysed the change in the exports of manufactures of the United Kingdom, France, Germany, Other Western Europe, Canada, United States, India and Japan between 1899 and 1959. The period was subdivided into six sub-periods (1899 to 1913, 1913 to 1929, 1929 to 1937, 1937 to 1950, 1950 to 1955 and 1955 to 1959). The exports of these countries were cross-classified into 8 areas of destination and 6 commodity categories.[9]

---

8. A. Maizels, loc. cit.

9. These areas and commodities were listed in Appendix A Tables A 70-72 and A 75-77, Ibid., pp.489-493, 496-501. They were as follows:-

   Areas of destination:-
   United Kingdom, Continental Western Europe, North America, Southern Dominions, India (including Pakistan), Other Semi-Industrial Countries, U.S.S.R. and Rest of World.

   Commodity categories:-
   Metals, Machinery, Transport Equipment, Chemicals, Textiles and Clothing, and Other Manufactures.

The results of Maizels' calculations[10] indicate, firstly, that the change in each country's exports between any two years was determined as frequently by the country's 'penetration' of markets as by the change in the size of their markets: out of the 48 studies of export growth,[11] 24 revealed that at least half of the change in exports could be attributed to the change in the size of the country's markets. In the other 24 cases the change in exports was mainly due to 'penetration' of markets. The analysis of the rapid growth in the exports of Japan over the period provides an interesting example of the extent to which a country can consistently increase its exports faster than world trade by 'penetration' of world markets: only a small proportion of the change in Japan's exports of manufactures in each of the six sub-periods was due to the growth in its markets. The remainder was due to the rapid development of new avenues of trade.

The second main conclusion of importance to the aims of this chapter is that in most cases the difference between the growth of each country's exports and the

---

10. See Ibid., Table 8.5 pp. 200-1.

11. i.e. eight exporting countries and six sub-periods.

growth in world trade in manufactures was typically due to 'penetration' of markets by the country. In only 3 out of the 48 cases could the difference between the growth in the country's exports and the growth in world exports be explained predominantly by the growth of the country's markets. To give one example of these three exceptional cases: the exports of the United States between 1899 and 1913 increased by 100 per cent compared with an increase of 80 per cent in world trade. The difference was entirely due to the fact that imports into United States' markets were growing more rapidly than world imports.[12]

However, this second conclusion could not be drawn from the results of all other similar studies. For instance, Junz and Rhomberg have studied the change in exports of 11 countries in two periods (1953-55 to 1956-59 and 1956-59 to 1960-63). The results have shown that, in 6 out of the 22 cases studied, the difference between the percentage growth of exports of

---

12. In point of fact, United States' markets grew even more quickly than is indicated in this description. The effect of the rapid growth of United States' markets was partly offset by some loss of share (i.e. negative penetration) of these markets.

the individual country and the percentage growth in world trade in manufactures was due predominently to the growth of the country's markets.[13]

It appears, therefore, that overseas studies have found that the reason for the greater increase in an individual country's exports than in world trade could be due either to a favourable market structure (i.e. one that is 'fast-growing') or to penetration by the country of overseas markets (i.e. the development of new markets). Nevertheless the elimination of the effect of the changes in the commodity/area structure of world trade in finished manufactures is an important step towards discovering the factors underlying a country's export performance.

---

13. Helen B. Junz and Rudolf R. Rhomberg. Op. cit. p. 228.

III STATISTICAL PROCEDURE

The central feature of the methods normally adopted to estimate the effect of changes in the structure of world trade in manufactures on the export performance of a particular country is the calculation of shares held by the country in narrowly defined 'import' markets. To enable the shares to be calculated, the exports of the selected industrial countries for the required years are aggregated to represent 'world imports'. These export statistics are cross-classified by countries or areas of destination and by commodity categories to provide commodity/market 'cells'. Each 'cell' represents the 'imports' of a particular country or area of a particular commodity category.

The shares held by any one of the selected exporting countries in the individual commodity/market 'cells' can then be calculated. This provides the data with which to calculate the hypothetical level of that country's exports based on the first assumption outlined above.

However, this procedure could not be followed in this study. The principal reason is that the export

---

12. See above page 176.

statistics of the major industrial countries do not distinguish certain countries (e.g. Papua and New Guinea) which are important importers of Australia's finished manufactures.

Consequently, recourse was made to import statistics to estimate these structural effects on Australia's exports of finished manufactures. One important reason why import statistics were not used in the works cited above is the variety of commodity classifications used by countries in their national trade statistics.[14] Only a relatively small number of countries report import statistics to the United Nations on a consistent basis showing commodities by countries of origin (by the SITC). However virtually all countries report statistics on their total imports of individual commodities, classified by the SITC, to the United Nations.[15] Accordingly the change in the level of the imports of each country for each commodity category (i.e. each market 'cell') has been adopted in this study to estimate the hypothetical level of Australia's exports of finished manufactures in 1963/4-1964/5 according to the first hypothesis.

---

14. See the discussion on this point by S.J. Wells, op. cit., p.xxi.

15. See United Nations, Yearbook of International Trade Statistics, (New York) Annual volumes.

As these import statistics are recorded on a calendar year basis the periods used do not coincide exactly with those used for Australia's exports of finished manufactures. The average of the pairs of years 1959-1960 and 1963-1964 were taken to represent the years 1959/60-1960/1 and 1963/4-1964/5 respectively.

The deficiency in this technique is immediately apparent: even if the periods chosen for exports and imports were identical, there is a lag in time between a particular shipment being recorded as an export in the country of origin and as an import in the country of destination. The series are even less comparable when <u>different</u> periods are chosen. However, two factors make the technique more acceptable. First, three countries (accounting in total for 53 per cent of Australia's exports of finished manufactures in 1959/60-1960/1) record import statistics on a SITC basis showing Australia as a country of origin for most commodities. These countries are New Zealand (which reports to the United Nations), Papua and New Guinea and Fiji (which record their national trade returns on a SITC basis). Thus shares held by Australia in various commodity categories could be calculated.

The pairs of years chosen to represent the Australian export years 1959/60- 1960/1 and 1963/4- 1964/5 were:- New Zealand, 1959-1961 and 1964-1965;[16] Papua and New Guinea, 1959/60-1960/1 and 1963/4-1964/5; Fiji, 1959-1960 and 1963-1964. Thus it was possible to calculate accurately whether Australia's share of the imports of individual commodities of these countries changed between the first set of years and the second set. This data was used in estimating that part of the increase in Australia's exports of a particular commodity to a particular country attributable to the growth of the country's imports and that part which was due to an increase in the Australian share (i.e. Australia's 'penetration') of the import market 'cell'. For instance, if the calculations showed that Australia's share of an individual market 'cell' remained constant over the period, the entire increase in Australia's exports of that commodity to that country was attributed to an increase in the size of the import market. Similarly if Australia's

---

16. Due to a change in the basis of valuation of New Zealand's import statistics in the source used during the period (from f.o.b. /free on board ship/ to C.I.F. /i.e. including insurance and freight/) it was necessary to make an adjustment when calculating the change in the level of this country's imports. The level of New Zealand's imports in 1964- 1965 of each commodity category was reduced by 6 per cent. This was approximately the difference in the value of New Zealand imports of finished manufactures in the six months July to December 1963 when valued by current domestic value (which approximates f.o.b.) and when valued on a C.I.F. basis.

share of the commodity/market 'cell' had increased over the period, this fact was used in conjunction with the known percentage increase in Australia's exports of that commodity to that country (between 1959/60- 1960/1 and 1963/4- 1964/5) and the known percentage increase in the imports of that commodity by that country (say, between 1959- 1960 and 1963- 1964).

The second factor which reduces the crudeness of the method is that the increase in Australia's exports of many commodities to many countries was far in excess of any conceivable increase in the size of the respective commodity/market 'cell'. In fact in a striking number of instances Australia's exports of a particular commodity to a particular country had risen from nil or virtually nil in 1959/60- 1960/1 to a value of, say, £100,000 or more in 1963/4- 1964/5. Thus all of this latter amount could be attributed to Australia's penetration of the market.

The commodity categories were based on the 26 categories used for comparing Australian and world exports by commodities (See Fig. 4.2 page 131 above). Some minor groups for which it was difficult to obtain import statistics were grouped together, making 22 commodity

Addendum to page 188.

It should be noted that the commodity coverage of Australia's exports of finished manufactures in this chapter is that used in the economic use classification adopted for Chapter 3. Statistics for the relevant years were reclassified into the 22 SITC categories. There are consequently some minor differences in the commodity coverage of Australia's exports of particular commodity categories and the coverage of the same categories in the overseas trade statistics with which they are compared. (See page 40). This procedure was adopted as working sheets had already been compiled on Australia's exports of finished manufactures cross-classified by countries of destination and by economic use commodity categories.

categories. About 120 countries of destination were involved, making a total of approximately 2,600 commodity/market 'cells'. (However Australia's share of many of these 'cells' was nil or negligible in both pairs of years.)

An important conceptual deficiency must also be borne in mind in interpreting the results of the calculations. An implicit assumption of this method (shared with the methods used in the works cited above in Part II of this chapter) is that all individual commodity items within each commodity/market 'cell' have changed between the two points of time by the same percentage as the aggregate of all items in the cell.[17] However some items may be growing more rapidly than others. If Australia's exports of a particular commodity category to that country is largely comprised of one of these 'fast-growing' items, an apparent penetration of the 'cell' will be recorded.

---

17. See the discussion on this point in "Fast and Slow-growing Products in World Trade", National Institute Economic Review, August 1963, p.23.

IV MAIN FINDINGS

Table 5:1 summarizes the main results of the computations outlined in Part II of this chapter. The 22 commodity groups were analysed separately, but the results have been aggregated under four main headings:- machinery, other than electric (SITC Division 71) electrical machinery, apparatus and appliances (72), transport equipment (73), and other finished manufactures.

As can be seen in lines 1, 2 and 3, Australia's exports of finished manufactures between 1959/60-1960/1 and 1963/4-1964/5 almost doubled in value, from an average of £33.0 million to £65.3 million; an increase of £32.3 million. Lines 4 to 7 of the table provide an analysis of the increase attributable to various factors. In view of the hypothetical nature of the bases for these calculations and the deficiencies in the statistics which were used, the results shown can only be regarded as broadly indicative. Nevertheless some important conclusions can be drawn from the results and stated with some confidence.

Table 5.1. CHANGES IN THE VALUE OF AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES ATTRIBUTABLE TO CHANGES IN THE SIZE OF 'AUSTRALIA'S' MARKETS, 'PENETRATION' OF IMPORT MARKETS AND THE CHANGE IN AREA AND COMMODITY PATTERN OF WORLD IMPORTS

22 commodity categories based on S.I.T.C. groups [a][b]

£Am.

	Machinery, other than electric (71) (6 categories)	Electrical machinery, apparatus and appliances (72) (1 category)	Transport Equipment (73) (5 categories)	Other finished manufactures (various) (10 categories)	TOTAL (22 categories)
(1) Actual exports 1959/60-1960/1	8.0	4.0	7.6	13.5	33.0
(2) Actual exports 1963/4-1964/5	16.3	8.3	17.6	23.2	65.3
(3) Change [(1) minus (2)]	+ 8.3	+4.3	+10.0	+ 9.7	+32.3
CHANGE ATTRIBUTABLE TO:-					
(4) Change in imports of the 22 categories by 'Australia's' markets [c]	+ 3.5	+2.2	+4.4	+ 5.7	+15.8
(5) 'Penetration' of import markets [d] (3) minus (4)	+ 4.8	+2.1	+5.6	+4.0	+16.5
(6) Change in total 'world' [e] imports of finished manufactures [f] (i.e. 45.5 per cent)	+ 3.6	+1.8	+ 3.5	+ 6.1	+15.0
(7) Change in commodity and area pattern of world imports [g] [(4) minus (6)]	- 0.1	+0.4	+ 0.9	- 0.4	+0.8

Sources and detailed notes: See next page

General note: In view of the hypothetical nature of the figures shown in lines (4) to (7) and the limitations of the statistics with which they were calculated, the results can be regarded only as broadly indicative. See text p.189.

See over

Table 5.1. - Continued

Sources: Calculations were based on statistics drawn from the following sources:-

Lines (1) to (3):- Working sheets for Table 4.2.

Line (4):- Calculated from : trade returns of Papua and New Guinea, Fiji and certain Oceanian Islands; United Nations, Yearbook of International Trade Statistics and Commodity Trade Statistics, Series "D"

Line (6):- United Nations, Commodity Trade Statistics, Series "D".

(a) Calculations were based on 22 commodity categories comprising 27 S.I.T.C. groups deemed finished manufactures. See for list of 26 SITC groups. The 22 categories also include one additional group (812 Plumbing, heating, equip.) Table 4.2.

(b) There are some differences in the commodity coverage of the statistics used for Australian exports on the one hand, and 'world' imports and the imports of individual countries on the other hand. See text p.188.

(c) Based on an analysis of the relationship between Australia's exports of the 22 commodity categories to each country of destination in 1959/60-1960/1 and 1963/4-1964/5 and each country's imports of these categories from all sources for those years (or the equivalent of those years). The commodity/market 'cells' numbered approximately 2,600. The assumption of the calculations was that, while the level of imports in each commodity market 'cell' changed between the terminal periods, Australia maintained in 1963/4-1964/5, the same share of each commodity/market 'cell' as it held in 1959/60-1960/1.

(d) Represents the net effect attributable to changes in Australia's share of each commodity/market cell.

(e) Exports of finished manufactures of 10 major industrial countries, 1959-1960 to 1963-1964 (Calendar years).

(f) Assuming that Australia's exports of each of the 22 categories increased in line with total 'world' imports of finished manufactures.

(g) Represents the net effect of the difference between the change in imports of 'Australia's' markets and total 'world' imports of finished manufactures.

1. EFFECTS OF CHANGES IN IMPORTS OF FINISHED MANUFACTURES INTO 'AUSTRALIA'S' MARKETS

Market growth and Australia's 'penetration' of markets

Line 4 sets out the increases in Australia's exports of finished manufactures which could have been expected by the change in the imports of individual commodity categories by each of the 120 countries to which Australia exports finished manufactures. The calculations in this line are based on the assumption that Australia's share of each of the 2,600 commodity/market 'cells' was the same in 1963/4-1964/5 as it had been in 1959/60-1960/1.

This line shows that less than one-half of the increase of £32.3 million in Australia's exports of finished manufactures could be attributed to the growth in Australia's markets. The balance was due to the 'penetration' by Australia of the individual commodity/market cells.

Thus the first conclusion which can be drawn from these calculations is that the acceleration which occurred in the imports of some of Australia's major markets in 1963 and 1964 could not have been more than a contributing factor to the large rise in Australia's exports of finished manufactures recorded over the period 1959/60-1960/1 to 1963/4-1964/5.

Table 5.2. INCREASE IN AUSTRALIA'S EXPORTS BETWEEN 1959/60-1960/1 AND 1963/4-1964/5 ATTRIBUTABLE TO 'PENETRATION' OF IMPORT MARKETS

Summary table: Main commodity and country groups

£Am.

	New Zealand	Oceanian Islands	Other primary-producing countries	Industrial Countries	All countries
Machinery, other than electrical (71)	0.4	0.6	3.1	0.7	4.8
Electrical machinery apparatus and appliances (72)	0.7	0.1	1.0	0.3	2.1
Transport equipment (73)	4.1	0.0	0.9	0.6	5.6
Other finished manufactures	0.4	0.1	2.3	1.4	4.0
TOTAL	5.6	0.6	7.3	3.0	16.5

Sources and detailed notes: See Table 5.1.

General note: In view of the hypothetical nature of the concept of 'penetration' of import markets, and the limitations of the statistics upon which the calculations were based, the amounts shown in the above table can only be regarded as broadly indicative.

The estimated value of the 'penetration' of import markets achieved by Australia over the period classified by the four commodity categories is shown in Line 5 of Table 5:1. It can be seen that 'penetration' of markets was responsible for a large portion of the increase in Australia's exports of each category.

Australia's 'penetration' of world markets is shown in more detail in Table 5:2 where it has been cross-classified by the four summary commodity categories and by the four categories of countries of destination used in earlier chapters.

A number of observations can be made from the data shown in this table. First, considerable 'penetration' of the New Zealand import market was achieved during the period. Most of this 'penetration' was achieved in the group "road motor vehicles" (SITC group 732) which is included under the broad heading of 'Transport Equipment' in the table. Australia's share of the New Zealand import market for road motor vehicles increased from an average of 11 per cent for 1959, 1960 and 1961, to 21 per cent for the two years 1964 and 1965.

Unfortunately the import statistics for most of the Oceanian islands do not provide sufficient detail for a comprehensive estimation to be made of Australia's

performance in this area. The figures in the column headed 'Oceanian Islands' mainly refer to Papua and New Guinea and Fiji. The small penetration recorded is the net effect of some diverse trends. Australia recorded a 'negative penetration' in the Papua and New Guinea market for a number of commodities, mainly the products of light industry. The individual groups in which the Australian share fell between 1959/60-1960/1 and 1963/4-1964/5 were pharmaceuticals, soaps and toiletries, made-up textile articles (which includes carpets and blankets), clothing and photographic supplies. On the other hand Australia substantially increased its share of the Papua and New Guinea import market for road motor vehicles. Australia increased its share of the Fiji import market for road motor vehicles and a machinery category which includes food processing equipment.

The penetration of the import markets for primary-producing countries other than in Oceania was substantial. Almost one half of this penetration was achieved in the non-electrical machinery category. Individual groups which contributed to this penetration were earthmoving and construction equipment and tractors (United Arab Republic, Pakistan), mining and metallurgical equipment (Philippines, Malaysia), agricultural machinery (Philippines, South America), office and accounting machinery (Hong Kong, Philippines, India). The large share of the category

'other finished manufactures' was comprised of the combined penetration achieved by a number of items such as clothing, hand tools and metal manufactures in a number of primary-producing countries outside Oceania. Considerable penetration was also recorded by road motor vehicles (particularly in Malaysia, Hong Kong, the Philippines, British West Indies, West Asia and West Africa).

The largest single category in which Australia penetrated the import markets of the industrialized countries was the miscellaneous group 'other finished manufactures' which includes many items of consumer goods.

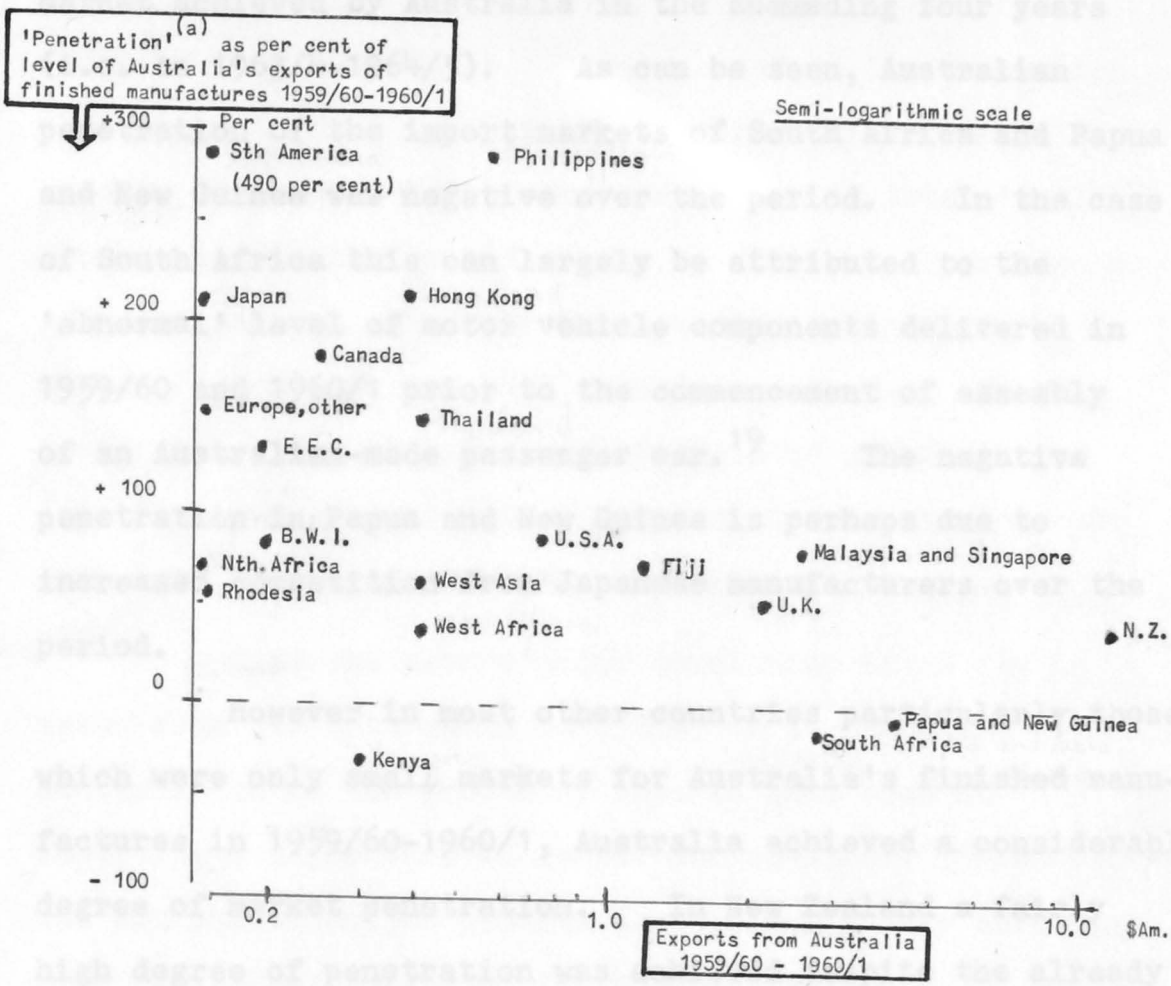
Within the transport equipment category, the Australian penetration of the markets of these countries was mainly due to the success achieved within the aircraft group (United States).[18] The penetration within the non-electric machinery category was mainly due to exports of office machinery (Japan, France, Canada and the United States).

An indication of the extent to which Australia 'penetrated' import markets for finished manufactures can be gained from Fig. 5.1. The vertical scale indicates

---

18. This was partly offset, however, by a substantial 'negative penetration' of the United Kingdom market for aircraft due to decline in deliveries of the Jindivik pilotless airdraft after 1961/2.

Fig.5.1. AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES: RELATION BETWEEN VALUE OF EXPORTS TO INDIVIDUAL MARKETS[b] 1959/60 - 1960/1 AND SUBSEQUENT 'PENETRATION'[a] BY AUSTRALIAN EXPORTS BETWEEN 1959/60 - 1960/1 AND 1963/4 - 1964/5.



Source: Working sheets for table 5.1.

(a) Represents the net effect attributable to changes in Australia's share of the imports of 22 commodity categories into each country between 1959/60-1960/1 and 1963/4-1964/5. See Table 5.1.

(b) Some countries of destination are not shown due to the lack of suitable data upon which to base estimates of penetration. These countries are mainly Indonesia, Oceanian islands other than Papua and New Guinea and countries comprising South Asia. Estimates of penetration of these markets have, however, been included in the aggregate figures shown in Tables 5:1 and 5:2.

the relation between the level of Australia's exports of finished manufactures to individual countries (or groups of countries) in 1959/60-1960/1 and the penetration of the market achieved by Australia in the succeeding four years (i.e. to 1963/4-1964/5). As can be seen, Australian penetration of the import markets of South Africa and Papua and New Guinea was negative over the period. In the case of South Africa this can largely be attributed to the 'abnormal' level of motor vehicle components delivered in 1959/60 and 1960/1 prior to the commencement of assembly of an Australian-made passenger car.[19] The negative penetration in Papua and New Guinea is perhaps due to increased competition from Japanese manufacturers over the period.

However in most other countries particularly those which were only small markets for Australia's finished manufactures in 1959/60-1960/1, Australia achieved a considerable degree of market penetration. In New Zealand a fairly high degree of penetration was achieved despite the already high level of exports from Australia in the base period.[20]

---

19. See above page 156.

20. Compare Fig. 4.5a (page 153) in which trends in the total level of exports of finished manufactures to New Zealand can be compared with the trends in the total level of their imports of finished manufactures from all sources. These trends suggest (but do not 'prove') that Australia had been achieving considerable penetration of the slow-growing New Zealand import market for finished manufactures over the decade as a whole.

The growth in Australia's markets and 'world' imports

The hypothetical increases in Australia's exports between the period 1959/60-1960/1 and 1963/4-1964/5 as shown in line 6 of Table 5.1 were based on the assumption that each of the 22 commodity categories in Australia's exports increased by the same percentage as total 'world' imports in finished manufactures. This line provides a standard against which the increase in 'Australia's' markets (shown in line (4)) can be compared. This comparison shows that imports of finished manufactures into 'Australia's' markets increased at approximately the same rate as 'world' imports. (See line 7).

Thus the second major conclusion which can be drawn from the data shown in Table 5.1 is that the acceleration in the growth of imports into some of Australia's major markets in the period after 1959/60-1960/1 was not sufficient to provide Australia with any advantage over 'world' exporters of finished manufactures. Rather, it suggests that before this acceleration occurred, Australia had been under some disadvantage in exporting to countries which were increasing their imports at a slower rate than 'world' trade in these commodities.

Australia's commodity export specialization and 'world' trade growth

With the statistics on Australian and 'world' exports of finished manufactures which have been compiled for examining the effect of Australia's market pattern on the increase in its exports of finished manufactures between 1959/60-1960/1 and 1963/4-1964/5, a further inquiry can be made: were the commodities in which Australia 'specialized' at the beginning of this period fast-growing in world trade? The answer to this question will shed further light on Australia's export performance in finished manufactures during this period. Australia, like all exporting countries, has certain commodities in which it 'specializes'.[21] As commodities are growing at a wide variety of rates in 'world' trade it may be that Australia specialized (in 1959/60-1960/1) in commodities which are growing rapidly in 'world' trade. This would provide Australia with some advantage: it seems reasonable to assume that it would be easier for a country to export commodities which are growing rapidly in world trade than to export commodities for which demand is growing only slowly. [As we have seen there is reason to

---

21. A country can be said to 'specialize' in a certain commodity if the proportion of that commodity in the country's exports is higher than the proportion of the respective commodity in 'world' trade.

suspect that some commodities (agricultural machinery is a possible example) are growing slowly in world trade because many countries have become nearly self-sufficient.[22] Consequently a country whose exports consisted of a high proportion of slow-growing commodities would have more difficulty in increasing its exports as rapidly as a country specializing in commodities for which demand is rising rapidly.[23]

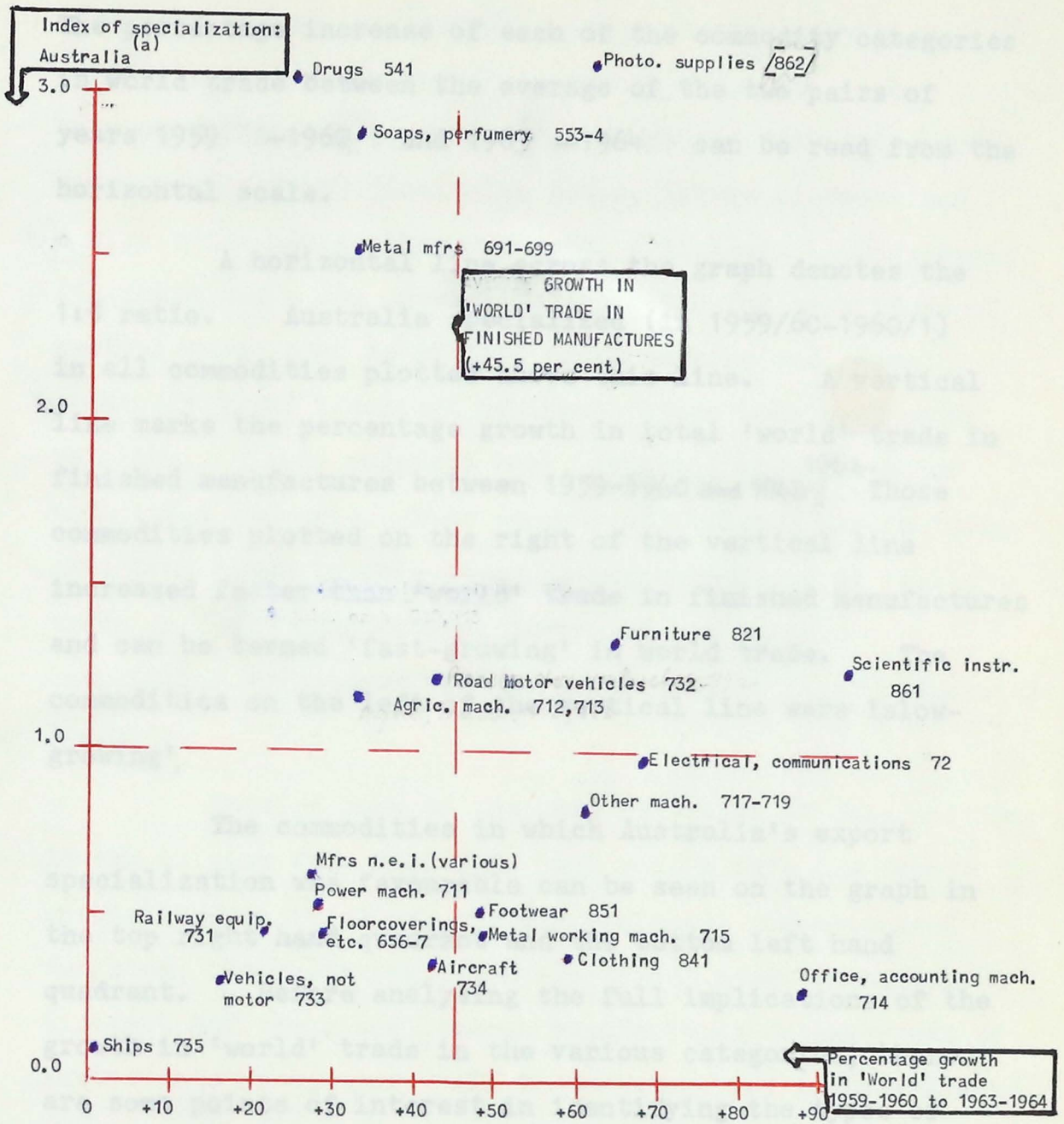
Fig. 5.2 illustrates the relationship between the finished manufactured commodities in which Australia specialized in 1959/60-1960/1 and the rate of growth in 'world' trade in the same commodity. An index of specialization is shown on the vertical scale of the graph. This was calculated by dividing the share of the commodity in Australia's exports of finished manufactures by the share of the same commodity in 'world' trade in finished manufactures. For instance, the share of the 'metal manufactures' category in Australia's exports of finished manufactures in 1959/60-1960/1 was 16.2 per cent. In 'world' trade in finished manufactures the share of the commodity was 6.3 per cent. Thus the Australian specialization index for that commodity was 2.6:1.

---

22. See pages 137, 138.

23. However, we have also seen that countries can overcome these difficulties. Japan is the notable example. See page 182.

Fig. 5.2. RELATION BETWEEN AUSTRALIAN EXPORT SPECIALIZATION[a] 1959/60-1960/1 AND GROWTH IN 'WORLD' TRADE[b] BY COMMODITY GROUPS[c] 1959-1960 to 1963-1964



Sources: Working sheets for Table 5.1.

(a) Share of commodity group in Australia's exports of finished manufactures divided by the share of the commodity group in 'world' trade in finished manufactures.

(b) Exports of 10 major industrial countries.

(c) Classification according to S.I.T.C. The code of each group is indicated in brackets. Australian export statistics can only be approximately classified according to S.I.T.C. groups. See text p. 41.

The percentage increase of each of the commodity categories in world trade between the average of the two pairs of years 1959/60–1960/1 and 1963/64–1964/5 can be read from the horizontal scale.

A horizontal line across the graph denotes the 1:1 ratio. Australia specialized (in 1959/60-1960/1) in all commodities plotted above this line. A vertical line marks the percentage growth in total 'world' trade in finished manufactures between 1959-1960 and 1963-1964. Those commodities plotted on the right of the vertical line increased faster than 'world' trade in finished manufactures and can be termed 'fast-growing' in world trade. The commodities on the left of the vertical line were 'slow-growing'.

The commodities in which Australia's export specialization was favourable can be seen on the graph in the top right hand quadrant and the bottom left hand quadrant. Before analysing the full implications of the growth in 'world' trade in the various categories, there are some points of interest in identifying the types of commodities in which Australia specializes (or, at least, in which Australia specialized in 1959/60-1960/1). It can be seen from Fig. 5.2. that the products in which Australia specializes are, in general, the products of

light industries. Australia has a particularly high specialization ratio for photographic supplies (i.e. unexposed films),[24] drugs,[25] soaps and toiletries and metal manufactures (including tools, louvre windows, and a wide range of miscellaneous metal articles). Conversely, Australia had a low specialization ratio for most items of capital goods such as office, metal working and power machinery, and transport equipment other than road motor vehicles. This suggests that, compared with the major industrial countries whose exports of finished manufactures have been taken in this study as representative of 'world' trade in these commodities, Australia has certain comparative advantages for the production of light industrial products.

Turning back to the main objective of this section, it can be seen from Fig. 5.2. that Australia's low export specialization in ships, railway vehicles, non-motorized vehicles, floorcoverings, non-electrical power machinery, aircraft and the miscellaneous manufactures category was to Australia's advantage: all these categories increased more slowly than average 'world' trade in finished manufactures.

---

24. Almost all of which is supplied to New Zealand by an overseas-owned company in Australia.

25. One-half of which is destined for New Zealand.

Similarly, Australia's high specialization ratio in photographic supplies, furniture and scientific instruments was to Australia's advantage as these were fast-growing (over the period 1959/60-1960/1 to 1963/4-1964/5).

Australia's export specialization was unfavourable for all other categories. It is worth noting that world trade in road motor vehicles (which is the largest single category in Australia's exports of finished manufactures and one in which Australia specializes) increased by approximately the same percentage as total 'world' trade in finished manufactures.

In the event, these 'favourable' and 'unfavourable' aspects of Australia's export specialization balanced out: Had each category in Australia's exports of finished manufactures increased by the same percentage as the same category in 'world' trade over the period 1959/60-1960/1 to 1963/4-1964/5, the level of Australia's exports of finished manufactures in 1963/4-1964/5 would have been the same as if all categories had increased by the same percentage as <u>total</u> 'world' trade in finished manufactures.

CHAPTER 6

LONGER-TERM PERSPECTIVES

In the foregoing chapters we have explored various aspects of Australia's exports of finished manufactures over the period 1954/5 to 1964/5. We have examined the trends in the commodity composition and market pattern which have emerged over this period (Chapter 3). We have also (in Chapter 4) assessed Australia's export performance in these commodities, using trends in 'world' trade in finished manufactures as a standard of comparison. The impact of the cyclical fluctuations in total world commodity trade on Australia's export performance has been taken into consideration. Finally (in Chapter 5) we have estimated the extent to which the growth in imports into 'Australia's' markets contributed to the sharp rise in Australia's exports of finished manufactures in the final few years of the period.

In this chapter we will briefly examine Australia's export performance in finished manufactures in the wider context of world industrial growth and world trade in finished manufactures. We will also draw together some of the main trends which have been emerging in Australia's exports of finished manufactures over the period and suggest some lines of development which are likely to continue in the future.

I. INDUSTRIALIZATION OF AUSTRALIA'S EXPORTS

During the period 1954/5 to 1964/5, finished manufactures were a rapidly growing (albeit small) component of Australia's total exports, increasing at an average rate of growth which was more than twice the rate of growth of Australia's total commodity exports.[1] The proportion of finished manufactures in Australia's total exports increased from 2.5 per cent at the beginning of the period to 4.8 per cent at the conclusion.[2]

There are at least two main reasons why this development should not be considered unusual. First, Maizels has shown that the 'industrialization'[3] of the export trade of a country is an outcome of the progress of industrialization. In the early stages of industrial development, local manufacturing production is import-saving in character, 'being directed almost entirely towards the home market'.[4] After this stage is reached - which

---

1. Australia's exports of finished manufactures over the period 1954/5 to 1964/5 increased by an average annual rate of growth of 13.3 per cent compared with a growth of 5.6 per cent in Australia's exports of all commodities.
2. These shares were calculated for the average of the years 1954/5 - 1955/6, representing the beginning of the period and 1963/4-1964/5 representing the conclusion.
3. As measured bythe proportion of a country's exports consisting of finished manufactures. See A Maizels, Industrial Growth and World Trade, (Cambridge: Univeristy Press), 1963, p.60.
4. Ibid., p.64.

Maizels considered could roughly be characterized as the 'European level of industrialization' - the product of home manufacturing industry tends to 'spill over' into the export market. There is accordingly a marked tendency for the share of finished manufactures in total exports to rise as industrialization progresses.[5]

Australian manufacturing industry appears to be following the sequence of market expansion described by Maizels. The expansion by the Australian manufacturing industry into the production of most items of finished manufactures has been relatively recent. Until 1939 Australia depended heavily on imports for industrial goods and 'manufacture flourished only in iron-and steel-making, the refining and processing of non-ferrous metals and such naturally-protected light industries as textiles, clothing, footwear, foundry work and general engineering'.[6] The impact of World War II 'pushed' industry into machine tools, construction equipment and various kinds of industrial machinery and aircraft, among other branches of secondary industries.[7]

---

5. Ibid.

6. Alex Hunter, The Economics of Australian Secondary Industry, (Melbourne University Press), 1963, pp.2,3.

7. Ibid., p.3.

In tracing Australia's export performance in individual commodity categories, this study has provided many examples of Australian exporting firms (both overseas-owned and indigenous) which, during the earlier years of the period under survey had been preoccupied predominantly or entirely with the domestic market.[8] These firms are in a wide range of industries including those producing motor vehicles, sporting goods, telecommunications equipment, clothing, food processing machinery and consumer durables such as lawn mowers. The rapid growth of some commodities in Australia's exports (for instance sewing machines and some pharmaceuticals) have been due to the establishment of new products in Australian manufacturing industry with the specific intention to supply both export and domestic markets. However, these instances appear to be much less numerous than the established manufacturers who have subsequently turned to exporting as an outlet for their products.

The second reason why a rapid growth of finished manufactures in Australia's exports could be expected is that world demand for imports of finished manufactures has been growing more rapidly than for other commodities.

---

8. In Chapter 3.

Over the period 1954 to 1964 'world' trade in finished manufactures increased by an average of 9.2 per cent a year compared with a rise of 6.7 per cent a year in world trade in all commodities.

II THE DIRECTION AND COMPOSITION OF AUSTRALIA'S EXPORTS OF FINISHED MANUFACTURES

The rapid growth in Australia's exports of finished manufactures over the period 1954/5 to 1964/5 was achieved despite the slow growth in the import markets of some of Australia's main outlets for these commodities. At the beginning of the period under survey over 90 per cent of Australia's exports of finished manufactures were destined for primary-producing countries, many of which were beset by balance of payments difficulties which limited the growth in their imports even of essential capital goods. Imports of finished manufactures into New Zealand, Australia's largest single market, increased particularly slowly over the period under survey.[9]

---

9. The rate of growth in New Zealand's imports of finished manufactures over the decade averaged only 2.3 per cent a year (See Table 4.5 page 168). However Australia's exports of finished manufactures to this country increased by 11.0 per cent a year over the period due partly to the increase in Australia's share of the New Zealand import market for motor vehicles and motor vehicle components. See the top graph of Fig.4.5a in which Australia's exports of finished manufactures to New Zealand and New Zealand imports of finished manufactures from all sources are plotted in index form.

The emergence during the period of a rapidly growing export trade from Australia to the industrial countries is consequently an encouraging development. Two main lines of development can be discerned. The most distinctive feature is the rapid growth in Australia's exports of consumer manufactures to the industrial countries which have rapidly become Australia's major customers for these goods.[10] The high consumer purchasing power of consumers in these countries is probably a major factor in this development. A more fundamental reason, however, may be the similarities in the income levels between Australia and the major industrial countries. This similarity has induced the production in Australia of consumer goods of a 'quality' similar to that in demand in industrial countries.[11] Australian

---

10. Compare an observation (apparently written in 1964):- "Most of the manufactured products that Australia can export (to the industrialized countries) have to compete with domestic supplies in the importing country, imports often being used to meet shortages which may occur from time to time. It is in these circumstances that Australia has succeeded recently in selling a small range of manufactured products, mainly consumer goods, to some industrial countries." (underlining mine) Australia's Export Potential, Committee for Economic Development of Australia, (Melbourne) July 1964, p.48.

11. This general theory for the growth in trade between countries on similar income levels has been advanced by S.B. Linder, An Essay on Trade and Transformation, (New York: John Wiley and Sons) 1961 esp. pp.94-8.

manufacturers, originally producing for the tastes of the domestic market have found demand for their products also exists in other countries with a similar standard of living. Their competitiveness against the domestic producers (and exporters in other industrial countries) probably lies in the product differentiation they have developed.

The second line of development in Australia's exports to the industrial countries is in certain types of capital equipment. It is difficult to generalize on the nature of this equipment. However it can be said that 'specialized' capital goods produced in batches or specially to order figure prominantly. Items of this nature are, for instance, guided missiles, food processing machinery and particular types of data processing equipment.

Yet, in view of Australia's geographical situation, the primary-producing countries are likely to remain Australia's largest markets for the forseeable future. Even at the end of the period they accounted for 86 per cent of Australia's exports of finished manufactures. In fact, Australia's exports of finished manufactures to primary-producing countries <u>outside the Oceanian area</u> increased as rapidly as to the industrial countries. The changing composition of Australia's

exports of finished manufactures to New Zealand and South Africa over the decade under review in this study can probably be used as an indicator of the likely pattern of growth in Australia's exports to other primary-producing countries which are now at an earlier stage of economic development.

Both the composition and the rate of growth of Australia's exports of finished manufactures to the primary-producing countries will be markedly affected by the progress of industrialization in these countries. On the one hand with the development of import replacing industries in these countries under the protection of stringent import licensing restrictions, their imports of the simpler types of finished manufactures (for instance, storage batteries, wires and cables, louvre windows) will be further reduced. On the other hand, the rise in these countries of manufacturing industries based on the assembly of imported components will provide similar opportunities to those presented by New Zealand and South Africa, where Australia's exports of components (such as motor vehicles, television receivers, refrigerators and lawn mowers) have provided the major impetus for the growth in Australia's exports of finished manufactures.

III THE IMPACT OF DOMESTIC FACTORS ON AUSTRALIA'S EXPORT PERFORMANCE IN FINISHED MANUFACTURES

In Part I of this chapter we concluded that Australia's satisfactory export performance over the period 1954/5 to 1964/5 taken as a whole appears to be a sequel to the post-war expansion of manufacturing industry. However we have not explained fully the upsurge in these exports in the last few years of the period. Although not examined in this study in a comprehensive way, it appears that many manufacturing firms whose 'export successes' are clearly reflected in the export statistics examined in this study began exporting about 1961/2. Hence the process of Australia's 'penetration' of overseas markets appears to have accelerated at about this time.

The Government taxation export incentives scheme introduced in 1961 has undoubtedly been an important factor in this upsurge. In addition the prolonged recession beginning in 1961 provided (at least until about the end of 1963) excess manufacturing capacity to supply export orders and an unusually long period of cost stability in the Australian economy which may have improved Australia's ability to compete overseas.

This study has not examined the impact of these important factors on the changes in the level of Australia's exports of finished manufactures. However the results of this study suggest that one should be wary of attributing all - or even most - of the short-term changes in the level of Australia's exports of these commodities to domestic factors.[12] A more comprehensive study would probably reveal that, while changes in such factors as export incentives and the level of domestic demand may either reinforce or mitigate the effects of the cyclical fluctuations in overseas demand for finished manufactures, they do not override these powerful external forces. A corrollary to this conclusion is that any reduction in the rate of growth of Australia's exports of finished manufactures after the rapid rises in 1962/3, 1963/4 and 1964/5 should not in itself be accepted as evidence of a fundamental change in the conditions under which exporters are operating.

---

12. For instance a recent examination of Australia's exports of manufactures to Singapore and Malaysia compared the fluctuations in Australia's national expenditure with the fluctuations evident in the relevant export statistics. No reference was made to changes in the level of imports of manufactures of these countries. See Helen Hughes, "Australians as Foreign Investors: Australian Investors in Singapore and Malaysian Manufacturing Industries", Australian Economic Papers, VI, June 1967, pp.60-1.

Table A : 1 AUSTRALIA: EXPORTS OF FINISHED MANUFACTURES[a], 1954/5 to 1964/5 COUNTRIES OF DESTINATION

(£A'000 - rounded figures; some columns do not add exactly to totals shown)

Countries of destination	1954/5	1955/6	1956/7	1957/8	1948/9	1959/60	1960/1	1961/2	1962/3	1963/4	1964/5
PRIMARY PRODUCING COUNTRIES											
OCEANIA											
New Zealand	8,490	7,520	10,040	10,720	8,780	10,290	14,480	12,180	14,350	22,100	24,740
Papua and New Guinea	2,730	3,290	2,750	2,910	3,050	3,340	4,490	4,060	4,360	4,230	6,600
Fiji	890	750	940	1,070	1,140	1,220	1,080	1,060	1,410	2,370	3,360
Nauru	105	N.A.	190	140	150	220	340	410	630	1,080	650
Gilbert and Ellice Isls.	125	125	180	125	120	125	105	260	170	410	470
New Caledonia	260	260	470	310	160	270	250	270	240	220	440
Other Oceanian Islands	440	470	540	580	850	840	910	840	720	990	1,470
SUB-TOTAL	13,050	12,430	15,030	15,850	14,250	16,320	21,640	19,070	21,840	32,400	37,720
OTHER PRIMARY-PRODUCING COUNTRIES											
West Asia	105	140	120	220	175	130	500	375	600	860	680
South Asia (Burma, Ceylon, India, Pak.)[b]	(340)	(470)	(680)	(650)	(720)	(970)	(1,200)	(720)	(1,590)	(1,330)	(1,930)
Malaysia and Singapore	1,410	1,520	1,930	2,140	2,180	2,150	2,650	3,030	4,530	4,990	5,680
Formosa	5	-	80	35	10	-	100	35	60	75	125
Hong Kong	160	345	430	330	310	400	460	770	890	1,440	1,660
Other East Asia (excl. Japan)	10	-	5	50	10	70	100	50	30	10	15
Indonesia (incl. West Irian)	100	150	190	160	155	520	1,000	650	470	750	690
Philippines	40	60	100	440	490	420	560	910	910	2,000	2,460
Thailand	250	280	300	340	280	370	495	440	660	1,290	1,370
Other South-East Asia	10	-	-	20	10	25	30	30	75	40	45
North Africa (mainly U.A.R.)	40	40	60	110	95	35	175	70	70	230	1,270
Ghana	20	-	-	60	65	275	290	230	470	220	270
Nigeria	-	30	60	60	90	55	163	-	230	290	550
Other West Africa	20	35	100	20	25	25	10	86	30	125	60
Rhodesia	230	220	110	190	140	160	170	170	220	210	200
Other South and East Africa (incl. British West Africa)	320	340	220	470	340	590	520	410	710	910	900
South Africa	1,280	1,020	990	1,600	1,390	1,930	3,480	1,510	2,400	3,050	4,390
British West Indies	70	130	190	195	330	180	220	230	340	430	690
Central America	20	30	75	60	40	20	10	30	70	170	230
South America	30	30	45	410	20	85	120	130	230	630	590
SUB-TOTAL	4,460	4,830	5,700	7,560	6,880	8,380	12,270	9,850	14,600	18,840	23,820
INDUSTRIAL COUNTRIES											
United Kingdom	1,000	1,070	1,040	1,800	1,650	1,940	2,200	2,460	2,780	5,370	4,700
Germany	10	50	45	20	45	80	75	90	100	160	200
Italy	50	120	70	105	80	50	42	110	110	170	210
Netherlands	15	15	15	10	-	75	45	95	80	135	115
Other E.E.C.	15	10	51	15	10	65	40	40	65	210	160
Sweden	10	10	5	530	50	15	65	60	75	100	195
Other Europe	40	40	85	210	90	70	150	185	150	255	405
Canada	55	60	110	140	120	180	330	330	350	630	790
United States of America	340	250	400	615	690	860	800	970	1,050	1,800	1,810
Japan	115	210	165	155	170	170	140	170	500	750	760
SUB-TOTAL	1,650	1,850	1,990	3,600	2,910	3,520	3,890	4,510	5,370	8,480	9,370

Sources: See Table A .3

(a) Excluding re-exports and approximate values of aid shipments and secondhand ships.

(b) The export figures shown for South Asia are not reliable. Aid shipments to these countries comprised a high proportion of finished manufactures as recorded in the source used and the adjustments to exclude these 'non-commercial' shipments are approximate only.

Table A:2 AUSTRALIA: EXPORTS OF FINISHED MANUFACTURES[a], 1954/5 to 1964/5 BY ECONOMIC USE COMMODITY GROUPS

(Excluding re-exports, approximate values of aid shipments and secondhand ships)

(£A'000 - rounded figures; some columns do not add to totals shown)

Commodity groups[b]	1954/5	1955/6	1956/7	1957/8	1958/9	1959/60	1960/1	1961/2	1962/3	1963/4	1964/5
CAPITAL GOODS											
MACHINERY AND EQUIPMENT, NON-ELECTRIC											
Power generating (incl. boilers)	260	580	730	450	300	360	370	290	580	920	2,170
Cranes, conveyors	400	220	310	330	150	280	290	240	310	420	590
Office (incl. data processing)	80	130	110	460	240	140	180	180	720	570	470
Metal working	380	480	240	350	260	380	540	560	620	1,130	1,020
Food processing, n.e.s.	340	240	350	470	420	450	480	500	730	1,330	1,590
Pumps, compressors	210	280	280	310	370	380	470	540	600	920	990
Earthmoving, construction	440	670	720	930	600	670	1,100	900	1,240	1,520	2,400
Tractors (inc. engines)	90	140	330	360	280	350	460	410	760	720	1,170
Mining	460	280	340	340	640	600	850	940	900	1,200	1,260
Agricultural (incl. sheepshearing)	1,530	1,370	1,260	1,810	1,120	1,360	1,610	1,460	1,830	1,960	2,270
Other machinery and equipment[c]	1,350	1,120	1,230	1,170	1,540	2,080	2,090	1,940	2,720	2,720	2,930
TOTAL	5,540	5,510	5,910	7,340	5,560	6,500	8,440	8,120	10,220	13,420	16,860
ELECTRICAL AND COMMUNICATION MACHINERY AND EQUIPMENT											
Power generating	200	160	160	130	240	280	200	150	160	330	480
Communication (incl. transmitters, T.V. Components)	440	640	490	620	970	520	880	1,560	1,570	2,410	2,080
Batteries and parts	450	450	370	430	430	690	710	400	490	1,240	1,270
Wires and cables	150	280	300	250	520	330	320	230	480	510	830
Lighting equipment	50	35	30	30	20	28	30	40	35	60	55
Distribution equip. (incl. switchgear)	230	290	350	350	350	450	680	600	650	1,020	1,290
Other (incl. heating, cooking ranges)	210	150	200	290	240	417	570	510	590	610	860
TOTAL	1,720	2,040	1,900	2,100	2,770	2,720	3,380	3,490	3,980	6,170	6,860
COMMERCIAL TRANSPORT EQUIPMENT											
Aircraft (incl. missiles)	160	70	170	650	450	380	650	450	320	910	650
Railway	65	60	295	1,270	735	90	275	185	115	260	360
Boats, launches and vessels[d]	290	420	330	210	140	120	230	210	310	280	740
Motor vehicles, other (incl. trucks)	540	490	490	420	450	320	470	300	600	560	630
TOTAL	1,055	1,050	1,290	2,560	1,780	910	1,620	1,150	1,350	2,010	2,290
MOTOR CARS AND MOTOR VEHICLE PARTS AND COMPONENTS											
Motor cars, complete	620	750	1,630	870	1,030	1,810	2,280	1,770	3,700	5,210	6,830
Motor vehicle engines	160	160	180	200	180	190	590	350	410	590	150
Motor vehicle parts, electrical	25	10	10	10	10	25	85	80	105	120	95
Rubber tyres and tubes[e]	320	370	400	380	340	390	510	490	380	440	590
Other motor vehicle parts, components	1,170	950	2,510	2,400	2,150	3,210	5,500	3,520	4,440	8,710	10,460
TOTAL	2,300	2,250	4,730	3,880	3,610	5,630	8,970	6,200	9,030	15,060	18,130

Table A1 - Continued

Commodity groups	1954/5	1955/6	1956/7	1957/8	1958/9	1959/60	1960/1	1961/2	1962/3	1963/4	1964/5
CONSUMER GOODS											
DURABLE(f)											
Kitchen utensils, cutlery	130	120	120	120	140	130	130	110	170	380	590
Slide projectors, cameras	55	40	130	250	230	310	190	480	540	820	1,130
Electrical household appliances (incl. foodmixes, shavers)	460	430	210	360	220	350	490	380	490	630	740
Sewing machines	20	30	10	20	50	350	120	90	340	500	340
Refrigerators, fans, mechanical	330	270	210	340	290	420	330	270	400	690	870
Television receivers	-	-	-	-	-	-	40	5	55	135	120
Other household appliances (incl. lawn mowers)	170	270	230	280	330	240	230	330	450	580	790
Sporting, recreating equip. (incl. poker machines)	260	260	230	220	170	210	430	520	820	1,130	1,280
Other (incl. sunglasses, pens)	260	230	250	520	280	300	550	580	560	750	800
TOTAL	1,690	1,660	1,400	2,100	1,720	2,310	2,500	2,760	3,820	5,600	6,670
NON-DURABLE											
Clothing	270	210	320	300	240	280	380	420	510	1,072	1,110
Footwear	65	70	95	130	260	200	110	150	130	160	190
Toiletries, soaps	580	600	620	780	850	800	890	750	880	1,260	1,370
House furnishings (incl. blankets,carpets)	150	120	160	140	150	200	260	260	380	440	600
Other (incl. toys, matches)	250	200	220	220	230	240	250	260	290	400	500
TOTAL	1,310	1,200	1,410	1,580	1,740	1,720	1,890	1,830	2,190	3,340	3,780
OTHER FINISHED MANUFACTURES											
Louvre windows	540	570	580	710	660	580	1,310	920	1,140	1,380	1,410
Other building, engineering hardware	300	260	320	270	420	390	430	480	530	720	890
Prefab. buildings and fittings	110	140	130	110	150	180	230	370	410	1,080	970
Plumbing equip. (incl. sinks)	80	90	80	80	80	75	120	140	160	190	320
Hand Tools	440	410	400	450	400	670	850	660	810	1,130	1,170
Tools for machines	50	80	70	270	100	140	310	180	270	400	490
Arms	25	25	15	20	15	90	290	310	650	350	550
Safety equip. (incl. respirators, fire extinguishers)	110	110	55	65	55	45	40	80	75	75	80
Scientific, measuring equip.	280	270	270	370	270	300	550	370	390	570	840
Medical, dental materials (incl. sutures)	90	45	75	350	290	380	500	430	300	220	430
Drugs, medicines	1,180	1,100	1,380	1,610	1,840	1,960	2,280	2,240	2,600	3,040	3,295
Films, unexposed	370	360	390	450	460	670	780	750	800	780	1,010
Furniture, fittings	230	260	190	180	160	210	365	370	310	440	530
Metal manufactures, n.e.i.	1,290	1,300	1,700	1,990	1,500	1,930	2,390	2,080	2,040	2,720	3,120
Other finished manufactures	440	380	410	520	490	500	570	510	750	1,010	1,230
TOTAL	4,010	3,850	4,480	5,550	5,070	6,080	7,750	7,150	7,910	9,210	11,080

Sources and notes: See Table A3

Appendix A

Table A : 3 AUSTRALIA: EXPORTS OF FINISHED MANUFACTURES[a], 1954/5-1955/6 and 1963/4-1964/5

(£A'000)

(sub-totals rounded)

Economic use commodity groups[b]		New Zealand		Oceanian Isls.		Other primary-producing countries		Industrial countries		Total all countries	
		1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4 1964/5
CAPITAL GOODS											
MACHINERY AND EQUIPMENT, NON-ELECTRIC											
Power generating (incl.boilers)		37	597	172	328	197	447	16	173	422	1,545
Cranes, conveyors		186	212	39	106	80	171	7	13	312	502
Office (incl. data processing)		24	57	27	23	52	242	4	196	107	518
Metal working		287	375	33	91	43	513	66	100	429	1,079
Food processing		189	174	58	676	31	323	11	289	289	1,462
Pumps, compressors		132	256	59	215	46	376	5	107	242	956
Earthmoving, construction		124	385	88	375	224	1,128	121	68	557	1,956
Tractors (incl. engines)		11	229	72	274	17	416	13	25	113	944
Mining		99	88	44	134	203	970	23	47	369	1,239
Agricultural (incl. sheepshearing)		452	588	36	144	854	1,248	108	137	1,450	2,117
Other machinery and equipment [c]		899	1,314	123	394	138	717	77	400	1,237	2,825
	TOTAL	2,440	4,270	750	2,760	1,880	6,530	460	1,570	5,530	15,140
ELECTRICAL AND COMMUNICATION MACHINERY AND EQUIPMENT											
Power generating		81	143	70	167	22	33	6	63	179	406
Communication (incl. transmitters, T.V. components)		219	1,443	86	201	201	437	33	163	539	2,242
Batteries and parts		100	139	109	123	233	968	5	22	447	1,252
Wires and cables		114	113	100	315	-	224	2	17	219	669
Lighting equip.		26	22	14	31	-	4	1	1	42	58
Distribution equip. (incl. switchgear)		170	534	74	288	11	282	7	50	262	1,154
Other (incl. ranges)		109	193	63	159	11	139	9	246	192	737
	TOTAL	820	2,590	520	1,280	480	2,080	65	560	1,880	6,520
TRANSPORT EQUIPMENT											
Aircraft (incl. missiles)		31	91	38	46	27	89	21	554	117	780
Railway vehicles		3	71	39	131	15	108	2		62	310
Boats, launches and vessels [d]		72	85	267	294	14	61	2	21	355	461
Motor vehicles, other (inc. trucks)		129	39	350	372	35	155	2	29	516	595
	TOTAL	235	290	690	840	100	410	25	620	1,050	2,150

Continued on following page

Table A 3- Continued

(£A'000)

Economic use commodity groups		New Zealand		Oceanian Isls.		Other primary-producing countries		Industrial countries		Total all countries	
		1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5
MOTOR CARS AND MOTOR VEHICLE PARTS AND COMPONENTS											
Motor cars, complete		563	2,587	101	916	8	2,398	12	118	685	6,021
Motor vehicle engines		60	140	75	48	23	147	1	33	162	368
Motor vehicle parts, electrical		10	29	5	9		9	1	60	17	107
Rubber tyres and tubes[e]		25	39	225	324	94	132	2	18	346	513
Other motor vehicle parts, components		691	6,512	165	300	138	2,479	68	292	1,063	9,584
	TOTAL	1,350	9,310	570	1,600	250	5,170	90	515	2,280	16,590
CONSUMER GOODS											
DURABLE[f]											
Kitchen utensils, cutlery		56	96	52	86	20	120	8	180	136	482
Slide viewers, cameras		15	26	16	19	11	27	5	904	47	976
Electrical household appliances (foodmixers, etc.)		160	295	12	79	3	95	272	218	447	687
Sewing machines		2	237	22	33	-	45	-	118	26	433
Refrigerators, fans, mech.		129	355	93	229	65	197	12	-	299	781
Television receivers		-	1	-	2	-	124	-	1	-	128
Other household appliances (incl. lawn mowers)		88	101	102	245	27	144	5	194	222	684
Sporting, recreating equip. (incl. amusement machines)		126	99	24	46	76	221	33	839	259	1,205
Other (incl. sunglasses, pens)		70	139	27	48	37	157	112	430	246	774
	TOTAL	650	1,350	340	790	230	1,100	450	2,890	1,671	6,140
NON-DURABLE											
Clothing		35	67	180	326	19	374	6	327	240	1,094
Footwear		3	23	62	104	-	36	2	14	69	177
Toiletries, soaps		58	74	241	665	167	564	126	14	592	1,317
House furnishings (inc. blankets, carpets)		79	156	51	61	3	212	2	90	135	519
Other (incl. toys, matches)		97	69	106	105	13	81	6	195	222	450
	TOTAL	270	390	640	1,260	200	1,250	140	650	1,260	3,560

Continued on following page

Table A 3- Continued

(£A'000)

Economic use commodity groups	New Zealand		Oceanian Isls.		Other primary-producing countries		Industrial countries		Total all countries	
	1954/5-1955/6	1963/4-1964/5	1954/5-1965/6	1963/4-1964/5	1954/5-1965/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5
OTHER FINISHED MANUFACTURES										
Louvre windows	71	5	77	199	305	919	103	267	556	1,390
Other building and engineering hardware	113	269	80	199	86	276	-	63	279	807
Prefab. buildings and fittings	22	3	95	996	7	24	-	-	124	1,023
Plumbing equipment (incl. sinks)	19	51	56	86	8	111	-	7	83	255
Hand tools (incl. power driven)	178	436	100	158	149	389	-	169	427	1,152
Tools for inserting in machines	31	121	3	46	12	137	18	144	64	448
Arms	8	171	7	3	6	271	2	5	24	450
Safety equipment	87	8	22	23	2	32	-	15	111	78
Measuring, laboratory equip.	130	272	69	89	49	129	25	214	273	704
Medical, dental materials (incl. ligatures)	26	91	15	15	22	63	6	156	69	325
Drugs, medicines	297	1,773	152	258	504	1,050	187	88	1,140	3,169
Films, unexposed	336	826	28	64	-	2	2	2	367	890
Furniture, fittings	109	18	113	201	16	201	5	61	243	481
Metal manufactures n.e.i.	609	1,029	265	485	310	979	110	427	1,294	2,922
Other finished manufactures	206	146	130	285	51	194	22	493	409	1,118
TOTAL	2,240	5,220	4,730	11,640	1,500	4,780	510	2,120	19,120	65,310

Source: Commonwealth Bureau of Census and Statistics, Australian Exports and Overseas Trade Bulletins

(a) Excluding re-exports and approximate values of aid shipments. See pp. 41-48

(b) The 400 items of the 1964/5 Australian export classification which were deemed 'finished manufactures' have been reclassified into 56 groups each of which contain items which are reasonably homogeneous in terms of use. In view of the many changes in statistical detail of the Australian export classification over the period 1954/5 to 1964/5, it was necessary to trace back the history of each item to ensure that the commodity coverage of each group remained constant over the entire period. See pp. 33

(c) Includes printing, textile (but not sewing) woodworking, laundry and bootmaking machinery, ball bearings and miscellaneous unspecified machinery and parts of machinery.

(d) Excluding approximate values of secondhand ships. See pp. 46, 48

(e) Including some tyres and tubes for vehicles other than road motor vehicles.

(f) The items in these groups consist predominantly of consumer goods. They include, however, some exports for commercial use. The group 'Refrigerators, fans' for instance includes retail shop refrigerators.

Table A4: AUSTRALIA: EXPORTS OF FINISHED MANUFACTURES, 1954/5-1955/6 AND 1963/4-1964/5

Shares, by country and commodity classes

Percentage

Commodities: by economic use classes	New Zealand		Oceanian Isls		Other primary-producing countries		Industrial countries		All countries	
	1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5	1954/5-1955/6	1963/4-1964/5
Earthmoving, mining mach. (incl. tractors)	22.5 2.9	17.0 3.0	19.5 4.3	18.9 6.7	42.7 9.5	60.7 11.8	15.3 9.1	3.4 1.6	100.0 5.4	100.0 6.3
Agricultural mach.	31.1 5.6	27.8 2.5	2.5 0.8	6.8 1.2	58.7 18.3	59.1 5.9	7.7 6.4	6.4 1.6	100.0 7.8	100.0 3.2
Other non-elect. mach.	57.6 21.9	33.5 12.8	16.8 10.8	20.6 15.8	19.3 12.6	31.2 13.0	6.1 10.7	14.6 14.5	100.0 15.9	100.0 13.6
NON-ELECTRICAL MACHINERY	44.1 30.4	28.2 18.3	13.6 15.9	18.2 23.7	34.1 40.5	43.1 30.6	8.2 26.2	10.4 17.0	100.0 28.9	100.0 23.2
ELECTRICAL AND COMMUNICATION MACHINERY	43.5 10.2	39.7 11.0	27.3 10.9	19.7 11.0	25.7 10.9	32.0 9.8	3.5 3.4	8.6 6.3	100.0 9.8	100.0 10.0
COMMERCIAL TRANSPORT	22.4 2.8	13.3 1.2	65.7 12.5	39.0 7.3	1.0 2.6	18.9 1.9	0.2 0.1	28.6 6.5	100.0 5.5	100.0 3.3
CAPITAL GOODS	41.3 43.4	31.3 30.5	21.9 39.3	20.5 42.0	29.1 53.0	37.9 42.3	6.5 30.6	11.6 30.8	100.0 44.2	100.0 36.5
Durable consumer goods	38.6 8.2	22.0 5.8	20.5 7.3	12.8 6.8	13.5 4.9	18.0 5.2	27.0 25.9	47.2 32.4	100.0 8.7	100.0 9.4
Non-durable consumer goods	21.7 3.4	11.0 1.7	50.8 13.5	35.5 10.8	15.8 4.7	35.2 5.9	11.4 8.2	18.2 7.3	100.0 6.6	100.0 5.4
CONSUMER GOODS	31.4 11.5	17.9 7.4	33.7 20.9	21.1 17.6	14.5 9.1	24.3 11.0	20.3 34.2	36.5 40.0	100.0 15.3	100.0 14.8
Passenger cars, complete	82.3 7.0	43.0 11.0	15.8 2.2	15.2 7.9	1.0 0.0	39.8 11.2	1.9 0.7	2.0 1.0	100.0 3.6	100.0 9.2
Motor vehicle parts and components	49.0 9.9	63.5 28.8	29.1 9.9	6.4 5.8	15.9 5.6	26.1 13.1	4.0 4.5	3.8 4.8	100.0 8.3	100.0 16.2
MOTOR CARS AND MOTOR VEHICLE PARTS AND COMPONENTS	59.7 16.9	56.1 39.9	21.9 12.1	20.5 13.7	11.4 5.6	31.1 24.3	3.9 5.2	3.1 5.8	100.0 11.9	100.0 25.4
Building, engineering hardware	28.3 5.4	17.4 3.8	26.8 8.7	33.2 14.5	35.9 11.8	36.5 8.7	9.2 8.1	12.9 7.3	100.0 8.0	100.0 7.8
Other finished manufactures	46.1 22.6	42.7 18.5	20.4 17.0	14.0 12.2	24.1 20.9	28.8 13.7	9.4 21.2	14.4 16.4	100.0 20.5	100.0 15.5
OTHER FINISHED MANUFACTURES	41.0 28.0	34.3 22.2	22.2 25.7	20.4 26.7	27.4 32.2	31.4 22.4	9.4 29.7	13.9 23.7	100.0 28.6	100.0 23.3
TOTAL	41.8 100.0	35.9 100.0	24.7 100.0	17.4 100.0	24.3 100.0	32.7 100.0	9.1 100.0	13.7 100.0	100.0 100.0	100.0 100.0

Sources and Notes: See Table A3.

BIBLIOGRAPHY

The following is a list of all works cited in the text. However, it does not include all the sources consulted in the preparation of the thesis.

BOOKS AND ARTICLES

Braae, G.P., "The New Zealand Economy", 1955/56. The Economic Record, XXXII, November, 1956.

Board of Trade, "Trends in Exports of United Kingdom Compared with Other Countries", Board of Trade Journal, London, March, 1957.

"United Kingdom and World Exports of Manufactures in Past Decade", Board of Trade Journal, London, November, 1966.

Cameron, Burgess, "New Aspects of Australia's Industrial Structure", The Economic Record, XXXIV, December, 1958.

Clifton, E.J.S., "Commodity Classification Concepts in Analysis of Production and Trade", A paper presented to Australian and New Zealand Association for the Advancement of Science, Section G, Canberra, January, 1964.

Committee for Economic Development of Australia, Australia's Export Potential, Melbourne, July, 1964.

Danks, K.N. "Industrial Activity in Selected Areas of the South Pacific", South Pacific Technical Paper, No. 90, 1956.

Deane, R.P., The Establishment of the Department of Trade, Canberra: The Australian National University, 1963.

De Lock, M.H., "Review of the Financial and Economic Situation in South Africa", The South African Journal of Economics, XXIX, 1961.

Du Plessis, T.A., "The Balance of Payments and the Economic Development Programme", The South African Journal of Economics, XXXIV, June, 1966.

Elkan, P.G., "The New Zealand Economy", The Economic Record, XLI, December, 1965.

"New Zealand Relations with Australia. Trade Size and Structure", Memorandum No. 9, New Zealand Institute of Economic Research, Wellington, July, 1965.

Hunter, Alex, The Economics of Australian Secondary Industry, Melbourne University Press, 1963.

Hughes, Helen, "Australians as Foreign Investors: Australian Investors in Singapore and Malaysian Manufacturing Industry, Australian Economic Papers, VI, June, 1967

Junz, Helen B. and Rhomberg, Rudolph, R., "Prices and Export Performance of Industrial Countries 1953-63", International Monetary Fund Staff Papers, XII, July, 1965.

Kooy, M. and Robertson, H.M., "The South African Board of Trade and Industries; the South African Customs Tariff and the Development of South African Industries", South African Journal of Economics, XXXIV, September, 1966.

Kerr, A., "Some Development Problems in Asian Countries", a Paper presented to the Australian and New Zealand Association for the Advancement of Science, Section G, August, 1965.

Kojima, Kiyoshi, "The Pattern of International Trade Among Advanced Countries", Hitotsubashi Journal of Economics, IV, June, 1964.

Linder, S.B., An Essay on Trade and Transformation, New York; John Wiley, 1961.

Maizels, A., Industrial Growth and World Trade, Cambridge: Cambridge University Press, 1963.

Marais, G., "Tariff Protection, Industrialization and the Balance of Payments, with Special Reference to the Union of South Africa", South African Journal of Economics, XXVIII, March, 1960.

National Institute of Economic and Social Research, "World Trade in Manufactures", National Institute Economic Review, July, 1960.

"Fast and Slow-Growing Products in World Trade", National Institute Economic Review, August, 1963.

Narvekar, P.R., "The Role of Competitiveness in Japan's Export Performance 1956-58", International Monetary Fund Staff Papers, VIII, December, 1961.

Perkins, J.O.N., Anti-cyclical Policy in Australia, 1960-1966, Melbourne. Melbourne University Press (2nd ed.), 1967.

Pocock, B.M., Ed. Australian Marketing Projects 1964/5, National Committee of the Hoover Awards for Marketing, Sydney, 1966.

Ray, G.F., "British Imports of Manufactured Goods", National Institute Economic Review, March, 1960.

Rissik, G., "Review of the Financial and Economic Situation in South Africa", South African Journal of Economics, XXXIV, September, 1965.

Romanis, Anne, "Relative Growth of Exports of Manufactures of United States and Other Industrial Countries", International Monetary Fund Staff Papers, VIII, May, 1961.

Sewell, D.O., "Electric Household Durable Goods", Research Paper No. 7 of the New Zealand Institute of Economic Research (Inc.), Wellington, 1965.

Tariff Board's Report on Sewing Machines, Canberra, 6 March, 1964.

The Contracting Parties to the General Agreement on Tariffs and Trade, International Trade, Annual Volumes.

Tyszynski, H., "World Trade in Manufactured Commodities 1899-1950". The Manchester School of Economics and Social Studies, XIX, September, 1951.

United Nations, Economic Survey of Europe, 1964.

Production of Export and Capital Goods in the Fields of Mechanical and Electrical Engineering, Economic Commission for Europe, Geneva, 1962.

Trade and Development: Trade in Manufactures, New York, 1964.

World Economic Survey, New York, Annual Volumes.

United States Department of Commerce, Analysis of Changes in

United States Shares of Export Markets for Manufactures, 1954-58, prepared by International Economic Analysis Division, Washington, D.C., November, 1959.

Webb, G.R., "A Statistical Estimate of Manufactured Exports, Post War". Economic Society of Australia and New Zealand, Victorian Branch, Economic Monograph, No. 16, October, 1959.

Wells, S.J., British Export Performance: A Comparative Study, Cambridge: Cambridge University Press, 1964.

Wilson, R. Kent, "Import Replacement and Industrial Development in New Guinea", a Paper presented to the Australian and New Zealand Association for the Advancement of Science, Section G, Melbourne, 1967.

NEWSPAPERS, TRADE AND EXPORT JOURNALS

Australian Exporter, Sydney: Rawson Publications.

Australian Trader, Sydney: Exportad, Pty. Ltd.

Austral News, Department of Trade and Industry.

Impetus, Sydney: Chamber of Manufactures of New South Wales.

Overseas Trading, Melbourne: Department of Trade.

The Age, Melbourne.

The Australian, Sydney.

The Australian Financial Review: Sydney.

The Bulletin, Sydney.

STATISTICAL PUBLICATIONS

Commonwealth of Australia

Australian Exports, Commonwealth Bureau of Census and Statistics, Canberra, Annual Volumes, 1954/5 to 1964/5.

Australia: Exports of Manufactures 1964/65. Department of Trade and Industry, prepared by Central Statistical Unit, Canberra.

Australia: Pattern of Trade 1964/5, prepared by Central Statistical Unit of Department of Trade and Industry, Canberra.

Australian Standard Commodity Classifications, Department of Census and Statistics, Canberra. Unpublished, undated draft, issued about 1964.

Official Year Book of the Commonwealth of Australia, Canberra. Various Years.

Overseas Trade Bulletins. Bureau of Census and Statistics, Canberra. Annual Volumes. 1954/5 to 1964/5.

Report of the Territory of Papua, Various years.

Report of the Territory of New Guinea, Various years.

United Nations. Commodity Trade Statistics Series, "D", Annual Volumes. 1954 to 1964.

Standard International Trade Classification, Undated.

Yearbook of International Trade Statistics, Annual Volumes 1954 to 1964.

International Financial Statistics, Various years.

O.E.C.D., Main Economic Indicators, Various years.