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AUSTRALIA: A CASE STUDY OF THE ECONOMIC DEVELOPMENT
OF A COUNTRY DEPENDENT UPON INTERNATIONAL TRADE

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
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By

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The Ohio State University
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INTRODUCTION

**Economic Growth And Development**

There has been extensive writing on the subject of economic development and growth in recent years, but the problem of economic development and growth is not new. However, the method of analysis has varied. Adam Smith saw a nation increasing its material progress by increasing labor efficiency and technical improvements, and by the parsimonious accumulation of capital goods. David Ricardo viewed the economy as being in a stagnation state at a subsistence level of per capita real income for the bulk of the society. Robert Malthus could see the possibility of a gradually increasing minimum level of subsistence. This thread of thought could be carried on down to the present. So it can be seen that economic development and growth are not new concepts.

In seeking an answer to the problems of economic development and growth, economists frequently go beyond the limits of analysis which has traditionally been observed. In this area they must be concerned with such non-economic phenomena as customs, modes of production, age and sex distribution of population, climate, geography, and the like.
There is little to be gained for the purposes of this study from an extended investigation of all the possible definitions of economic development and growth. Very little real controversy surrounds the external evidence that development or growth is or is not taking place. Therefore, for the purposes of this study a definition of economic development will be used which is based on the evident results of development. This definition, though, should be both reasonably general and theoretically consistent.

W. Arthur Lewis has defined economic growth very simply as "... the growth of output per head of population ...," but "... economic output in the old-fashioned meaning of economic and not to some such concept as welfare, satisfaction, or happiness."¹ Lewis is concerned with the process by which more goods and services become available and not whether people might have or want more goods and services.

Lewis places emphasis on the means of improving productivity. Norman S. Buchanan and Howard S. Ellis are primarily interested in this also, but their measures could be achieved by redistribution. This, of course, depends upon who heads the society.

Buchanan and Ellis also recognize that increasing per-capita income is not a real criterion for development. They also recognize that if an area has increased its well-being, this is also no criterion for development. They raise a question regarding population increase and ask if the income increases enough to keep up per-capita income, is it sufficient? Their answer is probably no. Of course, this problem of population is one of the hardest to overcome in discussing economic development and economic growth.

Others have similar and different points of view. Thus, it must be decided whether there are theories of economic development and economic growth. It would appear that when reference is made to per-capita real income as the "thing" that is growing we mean economic growth. But when reference is made to per-capita real output as the standard of performance we mean economic development. Thus, it would appear that there is no conflict but differences in approach.

This study is an analysis of the economic development of Australia since World War II. Special emphasis will be given to the period from 1946 to 1956. In the study economic development will be

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^Norman S. Buchanan and Howard S. Ellis, Approaches to Economic Development. Passim.
understood to consist of the creation of a productive apparatus which is able to provide a greater output per unit of total inputs at the same level of total resource utilization; and/or provide for a consistently higher level of voluntary utilization of the productive resources of the economy. This can be achieved through innovations in the material process of economic life, in economic organization or in general economic and social institutions, or through successful search for new natural resources.

Economic development as defined above would usually imply a higher per-capita income (in real terms) over a period of time. However, this development might fail to produce a rise in living standards if it were merely sufficient to offset a qualitative decline in existing resources, or if it consisted merely of an increase in the average level of resource employment in a nation where rapid population growth was producing a decline in the marginal productivity of labor more than sufficient to offset the gain from the higher employment level. Even in these cases the average real income would be higher than it would have been had development not occurred. This definition of development seems logical and consistent with current thought on the subject.
The Problem Considered Here

One can conclude from the foregoing that economic development is a complicated business. There is the difficulty of charting a course and steering the development process after a start has been made. There is also the difficulty of getting development under way.

This dissertation is to be a study of a phase of economic development, that is, the development of Australia. This limited scope will be easier to analyze and the results should prove to be more satisfactory. The study is to be an investigation of the problems faced by a nation which is dependent upon international trade as it carries out a program for the development of its economy.

A study of Australia is of importance in that it is already considered a developed nation. Many of the current studies deal with underdeveloped nations, that is, nations which have poor economic performance as evidenced by the comparatively low average of consumption and well being of the people, plus the potentiality of improvements through the application of known means. Therefore, the study of the problems encountered by a "relatively developed nation" such as Australia should be of interest. Australia currently enjoys one of the highest standards of living in the world. The country has a key role to play as a Western outpost in a non-Western world where it is constantly watched by the nations of Asia and
Oceania for various reasons including its achievements through economic development.

The Australians desire to develop their nation. The people and the government leaders of all parties (with the exception of the Communist) are behind the government's development program. There is considerable discussion about the proper rate of development which should be undertaken. The generally accepted basis of the country's economic development program is to improve the levels of national well-being and the nation's defense potential.

There is currently an urgent desire to increase the national output so that the nation can supply the growing population with its requirements and to supply the required items necessary to meet the development program. Currently Australia must import many of these items and frequently Australia has been in serious difficulties due to a current account deficit in the balance of payments. Thus, this is another reason for the urgent desire to increase the nation's output. The Australians hope to become as self-sufficient as possible so that they will not have to be dependent on foreign sources for goods in time of war.

One of the important aspects of the Australian development program has been the migration policy. This policy in itself has created many problems for Australia. These will be discussed in
some of the following chapters. This need for migrants is another unusual aspect of Australia's development. Australia is not one of the nations faced with the problem of over population but one faced with the problem of under population. There has long been a fear on the part of the Australians of the potential invasion of the peoples of overcrowded Asia. Thus, the Australians feel an urgent need to develop their country so that the Asians will not occupy their vast empty spaces.

Australia is noteworthy for the actual change that has taken place during the period to be studied. Before World War II Australia was predominantly a non-industrial country dependent upon its agricultural, pastoral, and mining industries for foreign exchange earnings. Today Australia is a nation which has become intensively industrialized. In fact, the rate of development has been phenomenal in the postwar period. Currently the manufacturing sector of the economy is more important domestically than the rural and mining sectors of the economy, though manufactured products still play a very small role in external trade relations.

Australia is a worth while subject for study because there is sufficient information available for the period to be studied, although some of the information is inadequate. There is enough reliable information, though, to reveal significant trends.
Development is a basic topic of discussion in Australia and in most of the reliable material available. Though, there has not been any comprehensive study of the postwar period. Some of the sectors of the economy have been studied for the whole period but the bulk of the material involves a given time and a given project. There are little data available comparing one year with another. The information available indicates the position at the time written. This makes comparison of various periods difficult and in some cases impossible.

This study is to be an analysis of the postwar period in an attempt to see what has taken place and to investigate the policies used. In many cases the policies used were proper but at other times the policy used may not have been the proper ones. Thus this study will attempt to indicate, in the light of present day knowledge, what happened, why it happened, and what possibly may have been done.

The study is essentially an analysis of Australia's economic development and the effect international trade has had upon it. The various government policies will be studied to see what problems a relatively well-developed and trade-dependent country may run into in carrying out a development program. Australia faced many problems with varying degrees of success. The study will attempt to indicate the nature of these problems and particularly the impact of Australia's international trade position on these problems.
The essential problem is whether a nation such as Australia can carry out a development program successfully without injury and difficulty. An attempt will be made to indicate what the Australians may have done wrong and thereby created some of their own problems. Also, an attempt will be made to indicate whether Australia could have expected to undertake its development program with fewer difficulties if proper government and private action had been taken.

**Nature of the Data**

This study will be an analysis of an empirical nature rather than an extended theoretical discussion. The study employs descriptive, historical, and statistical material. Both primary and secondary sources are to be widely used. The former consist principally of statistics and qualitative comment prepared by government and private organizations. The latter include books, interpretative articles, newspapers, and similar information. Also direct contacts were made, including interviews with economists, businessmen, and government officials.

Australian statistics are in many respects inadequate. Frequently the statistics are incorrect (a fact which is admitted by the government) or simply estimates which have not been corrected or revised for several years. Also, there is in some cases a long time lag between the event and the publication of the statistics. Therefore,
the material either has to be accepted at face value or rejected. If the latter course is chosen there are no alternative source of data and no grounds for analysis. Thus, the Australian statistics have been accepted while realizing their limitations. It is unusual in such a nation as Australia that statistical data should be so poor. Currently an extensive effort is being made by the government to improve the situation.

The material used is the best and the most trustworthy and reliable to be found. Therefore use has been made of what is available even if it may lead to errors in interpretation. The use of this data is better than reliance on other sources which are questionable.

Survey of Chapters

Chapter II will be an analysis of the basic background facts about Australia. This will include a discussion of Australia's early economic development, climatic and geographic influences, and the present and the potential natural resources of Australia. There will also be a discussion of the Australian people and the migration program, Australia's water and power resources, transportation and communications, and, finally, Australia's industrial relations.

In Chapter III the external sector of the economy will be analyzed, with particular emphasis being paid to the balance of payments and the problems arising out of Australia's international
traded. There will be two specific periods of time covered in analyzing the balance of payments. The first is the period from 1928/1929 to 1938/1939. The second period will be from 1946/1947 to 1956/1957.

Chapter IV will be an analysis of Australia's foreign trade and foreign investment. An attempt will be made to see what effect the development program has had on them. Emphasis will be placed on Australia's capacity to import and export, the composition of Australia's trade, and the direction of Australia's foreign trade. An analysis will be made of Australia's foreign investment to see whether it has improved or retarded Australia's ability to develop.

In Chapter V Australia's foreign trade policy will be analyzed in an attempt to see what its impact has been on development. A study will be made of Australia's foreign trade agreements and negotiations to see what their effect has been. Also, the customs tariff, exchange controls, and government trade controls will be investigated to see what their impact has been. An investigation of the role Australia plays in the Sterling Area will be undertaken.

The developments in the secondary industries will be studied in Chapter VI. A survey of the basic industries will be attempted to indicate what has been done to make Australia more self-sufficient. The study will include an analysis of the problems encountered in the development of the industries and how government aid and policy have
helped or retarded the development. Finally, future prospects for the secondary industry will be indicated.

The developments in the primary industries will be studied in Chapter VII. This will include a survey of the various sectors of the primary industry and what development has taken place. Also, the effects of government policy and aid will be studied to see if they have improved the situation or retarded it. Lastly, the future prospects will be indicated.

Chapter VIII will be an investigation of the internal sector of the Australian economy. Particular emphasis will be given to the financial aspects of the economy. Monetary and fiscal policy will be analyzed in an attempt to indicate what their effect has been on the development program. Also, an analysis of the relationship between the Commonwealth government and the state governments will be undertaken. Chapter IX will indicate the general conclusions.
AUSTRALIA: ITS RESOURCES AND GENERAL DEVELOPMENT

Introduction

Any analysis of Australian development must consider the fact that Australia is a land of almost 3,000,000 square miles, of which over a third is desert and another 40 per cent suitable only for extensive pastoral development. Intensive development can be carried out in the remaining area (about 25 per cent of the country), but almost a quarter of it is rugged mountains. Drought and flooding aggravated developmental planning and population centers are widely separated.

Australian developmental history, therefore, is largely a story of a struggle to develop resources in the face of continuing problems of distance and the lack of water. The pace of Australian development owes a great deal to governmental assistance, and it is not without significance that almost all Australian utilities are state owned--transport, communications, irrigation, electric power. The simple reason is that private enterprise could not have contended with sprawling distances and still showed a profit. National economic development, accordingly has been determined, broadly, by peculiar circumstances of terrain and climate.
Balanced national development, too, did not become national policy until comparatively recent times, because Empire policy cast for Australians the role of primary producers. This policy, expressed in tangible form, for example, by the 1932 Ottawa Agreement, aroused fierce opposition in Australia. Its critics declared that Australians would be forever "... hewers of wood and drawers of water." 1

Inevitable developments, plus the impulses of World War II, have caused a reversal in development trends so severe that today concern about Australia's ability to produce sufficient food for domestic consumption has made a realignment of Australian primary and secondary industries an important aspect of federal government policy. 2 The widest meaning can be given to the term "development." But in terms of growth in population, capital assets and national production, Australian development can be traced and must be characterized as spasmodic.

1 Australian News and Information Service publication Australia: National Development, Reference Paper No. 5. April, 1954.

2 In this thesis I will use Colin Clark's definition of primary, secondary, and tertiary industries. In primary he places the pastoral, agricultural, and extractive industries. The secondary industries are the manufacturing industries. The tertiary industries are all the service industries.
Climatic and Geographic Influences

The land surface pattern of Australia has been a major factor in its general development, especially in the farming industries. Australia is a remarkable country—unusual among the continents for its age, singular in its isolation, unique for its flatness and low height above sea level, and noteworthy for the regular and close correspondence between its plant life and rainfall zones. In fact, the only way to understand Australia, its resources and its limitations, is to begin with the controls of its characteristic climates, and to show within this climatic framework the complete picture of the productive capacity and economic life of the continent.

Nearly half of Australia is barren as the Sahara Desert. Productive Australia is truly a desert fringe. Once these geographical facts are accepted, accurate understanding of the Australian environment becomes possible. Desert, steppe-desert, pastoral country, and agricultural areas are only the result of rain routines. The water supply available (or unavailable) determines the extent and

3 The Australian continent is older than any other continental areas only in that a longer period of time has passed since the last major geologic revolution took place in Australia. This can be seen in the very even nature of Australia's geographic features and the fact there are no high "young" mountains. The land surface is well worn and 'eroded.'
kind of land use and the capacity of any region to support population at a given standard of living. The geological structure generally, the age and desiccation of the continent, the leaching effect of rains over centuries, and the bleaching effect of the sun have combined to give soils that are, in total, poor compared to the rich soils of America and South East Asia. Throughout the area in general, essential components such as phosphates, and, in many of the reliably watered regions, trace elements are lost or lacking. Effective land use depends upon their replacement. The three million square miles of Australia are spread across about 2,500 miles from east to west, and extends from a point about 700 miles from the equator at Cape York, in the north, to within 1,600 miles of the ice front in South Tasmania. The importance of this situation is that North Australia is influenced by the tropical, or, more accurately, the equatorial system of climate.  

The great influence of climate on development potentialities is not generally realized. In the case of Australia, climate is a major obstacle restricting the full utilization of some of the resources with which the country is more favorably endowed. Next to Africa, with its Sahara Desert, Australia has the largest desert area in the world.

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4Griffith Taylor, Australia. Passim.
The area of the Australian desert is about 1,100,000 square miles, that is, more than one third of the country. There are in addition very large areas of extremely arid land.

Griffith Taylor many years ago drew attention to the limitations which climate imposes on the development of Australia. His views were unpopular at the time, and raised quite a storm of criticism—in fact, in 1924, he was publicly censured in the Commonwealth Parliament. A comment on this was made by Mr. T. Langford-Smith. He said:

There is irony in the fact that if due notice had been taken of his investigations, there would have been enormous saving in Government expenditures thrown away in fruitless efforts to develop areas that are now known as 'marginal' or even 'desert'.

Average rainfall can be very misleading. Large areas of Australia have a rainfall that would be quite appreciable on Western European standards, but which loses much of its value because of the nature of its occurrence. Australia is located in the transitional zone between the heavy dependable rains of the tropics and the reliable rains of the mid-temperate-regions. Most of Northern Australia has quite a high summer monsoonal rainfall, but a winter drought.

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Conversely, much of Southern Australia has a wet winter but a summer drought. The areas with more or less uniform rain are restricted to a relatively narrow belt of country on the central part of the eastern coast. Thus, the reliability of rainfall is another factor restricting the usefulness of much of Australia's agricultural and pastoral land. The expectancy of rainfall during the growing season is relatively low in many areas where the average rainfall is considered to be sufficient.

In terms of suitable areas of land to use for primary production, Australia has less than one third the land of the United States, and only a small fraction the land of Africa and South America. In terms of present land use, Australia has about 32,000 square miles under cultivation compared to 500,000 in the United States.  

To summarize, there is only a small part of Australia which can be regarded as climatically suitable for normal rural activities. There are appreciable areas that can support sparse grazing, but the greater part of the continent is either extremely arid or else receives rainfall that is not effective for most rural industries.

It has already been stressed that Australia is located in latitudes which are not particularly favorable from the climatic point

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6John Andrews, Australia's Resources and Their Utilization Part I. pp. 52.
of view. A good deal of this disadvantage, however, could have been counteracted by a well distributed system of mountain ranges. As it is, there are only two narrow belts of mountains which have an appreciable effect on the climate of the continent. The first of these is the complex system of ranges rather loosely known as the Great Dividing Range, which extends from Cape York southwards through Queensland and New South Wales into Victoria. The second is a much smaller and narrower system in South Australia, known as the Mt. Lofty Range in the south and the Flinders Range in the north. There are of course, many smaller systems such as the Macdonnell Ranges and the Kimberleys, but these do not have a major effect on the climate of large areas of the country.

As might be expected from the physiographic pattern, the main river basins run through the arid interior of the continent, and therefore much of their value is lost. The rivers of the east coast are short and have steep gradients, so that they also are of limited economic value.

Mineral Resources

Mining is not one of the major Australian industries. But Australia's mines have played a part in Australian development greater than their size would indicate. On the mining industries have been built Australia's secondary industries and these have helped
to broaden and stabilize Australia's economy and to increase its population-carrying capacity.

No nation contains within its borders all the minerals required for its needs. Australia is by no means badly off, and a comparison will show that her resources are superior even to those of the highly industrialized European nations. When Australia's resources are considered in relation to her small population, the position looks even better, and there is no room for doubt that they are sufficient to support a high level of industrial development. Coal, iron, lead, zinc, tungsten, tin, gold, and silver are present in abundant quantities for Australia's likely requirements. Though, Australia is deficient in petroleum—if necessary, this could be produced from the abundant coal and oil shale—and in many of the ferro-alloys. There are also important deficiencies in the mineral fertilizers.

**Early Economic Development**

Familiarity with the broad outline of Australia's economic history will contribute to an understanding of the present, and put future trends in a perspective essential to sound judgment. Australia has enjoyed four long eras of economic expansion interrupted by three severe depressions. Each era of growth has been marked by the development of one of the four main components of her industry—
pastoral, mining, agricultural, and manufacturing. Each depression has been foreshadowed by speculation and induced by a collapse of commodity prices. 7

The first period was from 1788 to 1850. The primary economic objective of the governors of the original colony, which was a penal colony, was self sufficiency to relieve the British Treasury of the burden of supporting the colony. Australia's first development occurred early in the 19th century following the discovery of a route across the difficult coastal range. This opened up the vast and fertile grazing land of the "outback". "Outback" is one of several terms which refer to the vast interior of Australia. Other terms are the "inland" or "back of beyond". The discovery coincided with the English Industrial Revolution and heavy demand for wool to supply textile factories. Thus, this event stimulated a flow of English capital to finance the pastoral industry in Australia. The two great problems--and they have been chronic almost ever since--were to find men and money. Drought and a collapse in London wool prices precipitated the crisis of the 1840's. Investors lost confidence and overseas credit sources failed. The situation was aggravated by a

7 This division into periods is found in The Story of Australia by A. G. L. Shaw.
cessation of public spending on the part of the colonial government. Millions of head of livestock were slaughtered for tallow as Australia endured four years of depression while waiting for wool prices to recover. Recovery came in 1844 and for the rest of the decade the economy progressed slowly.

The second era of the economic development of Australia came during the last half of the nineteenth century--1850-1900. Gold was discovered in 1851. The gold rush brought immigrants by the thousands. Other minerals as well as more gold were discovered. Export revenues of the mining industry were used to finance developments in other fields, and Australia enjoyed forty years of uninterrupted prosperity. The agricultural and pastoral industries expanded and prospered as railroad construction began. Wool remained supreme, though. Wheat farming expanded rapidly but it did not assume its rank as wool's great rival until the twentieth century.

Australia did not depend solely on export revenue to finance this expansion. Deficit financing by the government built railroads and communication facilities, and this stimulated private investment. Foreign investment also played an important role. With this new investment the growth of the secondary industry began to get underway. Industrialization was principally domestic, tied to Australian raw materials and geared to the home market. A high tariff fostered
many uneconomic ventures, but as long as wool, wheat, and gold produced high revenues, inefficiency went unnoticed. Depression came in the 1890’s with drought, decline in commodity prices, and violent labor upheavals. Again the confidence of foreign investors evaporated.

The third era of economic development came during the period 1900 to 1940. Recovery came at the turn of the century. There was a sharp increase in wool and wheat exports. Refrigeration techniques made exports of frozen meat on a large scale possible. These gains along with gains in the mining industries brought in much needed revenue. Important developments were stimulating the economy. The Commonwealth federation in 1901 eliminated barriers between states and simplified customs procedures. Public works—railroad construction and irrigation projects—improved efficiency. World War I had a profound effect on the structure of the economy. Britain bought the entire surplus of beef, mutton, wool, wheat, and many minerals, all at inflated prices. With the supply of manufactured

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8 At this time Australia was made up of six colonies each with independent policies. Tariff barriers were erected between colonies as well as against foreign countries. The tariff barriers were not all of the same height. During the later part of this period Victoria became a high tariff area while New South Wales became a low tariff area. After the colonies federated in 1901 into the Commonwealth of Australia the internal barriers were removed and the Commonwealth government set tariff policy.
goods cut off, secondary industry was built up to meet domestic demand, and commodity reserves were the source of investment funds. Later, foreign investment supplemented these funds, establishing a development pattern which is still followed. The cornerstone of Australia's present industrial development was laid in 1915 with the founding of an iron and steel industry. Although small by world standards, this industry has been highly efficient from the start, and its product has made possible many ventures which would never have been able to start without cheap steel. In both secondary and primary industry, with high tariff protection, high prices induced sub-marginal expansion.

The collapse of 1930 left Australia with the major headache of meeting overseas interest payments from an adverse balance of payments. The government moved promptly to meet this situation with a combination of inflationary and deflationary measures. The cost structure had to be cut in half to compensate for a 50 per cent drop in commodity prices overseas, and at the same time local industry had to be encouraged with high prices to substitute its output for imports which could no longer be financed. This was accomplished by reducing wages 25 per cent; raising the exchange rate in London, which raised foreign prices in terms of Australian currency; and increasing taxes and economizing on public expenditures. The
Commonwealth Bank agreed to back the government’s deficit to finance public works for relief of the unemployed.

Recovery was fairly rapid. Imports remained low, though, because of the scarcity of foreign exchange. This generated a new expansion of secondary industry, this time on an efficient basis. Many products were able to compete successfully with duty-free imports from the United Kingdom. Australia was linked this time with other countries in the British Commonwealth of Nations in a system of preferential agreements—The Ottawa Agreement of 1932—which was not entirely to Australia’s advantage. Although some of her produce was sold almost entirely in England, most of her wool was sold to non-European buyers, particularly Japan and the United States. Since these nations could only sell to Australia at a disadvantage, they retaliated. For a while Australia and Germany shared the distinction of being the only countries in the world not accorded most-favored-nation status by the United States. Japan excluded all Australian products except wool, and attempted to eliminate this by the discovery of wool substitutes.

9 Under the imperial preference arrangement Australia would permit imports from Great Britain, its colonial areas, and other Commonwealth nations duty-free or under preferential rates. Imports from other countries had to pay the full tariff rate. Therefore the United States and Japan were at a disadvantage and they retaliated.
During the decade of the 1930's nearly half of Australia's primary production was exported, and these commodities constituted 95 per cent of all trade exports. In 1939/1940 alone, manufacturing accounted for 8 per cent of total exports, an increase since 1913 from 2 per cent.

The fourth and final era began with World War II and continues up to the present. World War II accelerated the pace of development evident in the preceding decade, with remarkable results. High prices and the unavailability of goods during the war built up large backlogs of demand and propelled Australia into an era of phenomenal economic expansion which continues to the present day.

The Current Economic Status of the Country

Australia is now engaged in an "heroic effort to establish a new economic order".\(^{10}\)

We want to stay permanently on the brink of inflation. For the last sixteen years we have been permanently over the edge. We are trying now to get back to stability, without causing unemployment and without too drastic a cut in investment, by imposing most of the restraint on consumption. I hope we succeed for I do not like the alternative that faces us.\(^{11}\)


\(^{11}\)Ibid., p. 26.
Thus, a prominent Australian economist, R. I. Downing, summed up the beginning of the present era of Australian development.

The people (labor and migration policy). The population of Australia passed the nine million mark in 1954 and is now slightly less than 10 million. It is currently growing at a rate of 2 1/2 per cent, faster than the rate of growth in the United States at any time in its history.\(^1\)

The natural increase—now over 120,000 annually—accounts for the preponderance of growth, and prospects favor an annual increase of about 200,000 from all sources. Net immigration has averaged about 100,000 per year since 1948. The population is young and healthy. The average age is low, about 50 per cent being under thirty. The death rate is one of the lowest in the world.

Distribution of population is very uneven. The six state capitals—Sydney, Melbourne, Brisbane, Adelaide, Perth, and Hobart—contain over 50 per cent of the total, and the rate of increase is higher in the urban than in the rural areas. Most of the remaining population inhabits the relatively small part of the continent where climate is favorable, leaving vast expanses in the central and northern areas almost uninhabited.

\(^1\)Bureau of Census and Statistics, Canberra, January, 1958.
In 1947 the Commonwealth government embarked upon a large-scale immigration program to increase the population and provide additional manpower for developmental purposes. Shortages of manpower have been a feature of the postwar Australian economy, particularly in the 1946-1951 period. Australian public opinion strongly favors full employment. Thus, a major problem associated with Australia's development is how to encourage more effective utilization of present manpower resources and augment the labor force by migration without placing undue strain on services, such as housing, power supply, and transportation.

By 1955 the country had assimilated 1,000,000 migrants. The immigration program had, by then, been firmly established as a national policy, widely supported by the people and all political parties, though, they sometimes argued over the rate of intake of migrants. The aim for population seems to be about 20 million in the not too remote future. There have been many widely diverging estimates concerning the capacity of Australia for population. This aim could be accomplished in the next 25 to 60 years, depending upon the natural and migrant rate of increase.13

13 According to estimates of the Australian Department of Immigration the natural rate alone could achieve the goal of 20 million in 58 years. With the present migrant rate of 0.7 per cent the goal can be gained in 40 years. With an accelerated migrant rate of 1.6
The planned immigration intake was directed at the outset at increasing average production per worker in the Australian work force. Migrant labor played a major role in increasing the generation of electricity, to a lesser, but material extent, it contributed to an increase in production of black coal. This was important as it tended to eliminate recurring blackouts and power rationing and by increasing output of iron and steel. The growth in the work force accelerated such great projects as the Snowy Mountain Hydroelectric and Irrigation Project, and the construction of four oil refineries, and a host of major industrial projects that would have been impossible without help.

A basic question to be answered is that of how many migrants a year can Australia accept under present conditions without imposing intolerable strains on the new economy. Migration has intensified exchange difficulties and magnified the need for import restrictions. This is partly because the larger population makes Australia increasingly dependent on overseas supplies. It is also because more people at home have used more domestic farm products and so reduced the surplus available to earn export income. Developments of agriculture have not kept up with the mounting population. An official estimate

13(continued) percent it can be achieved in 25 years. The Australian Immigration Programme—In Nation-Building, Department of Immigration, 1956, Passim.
shows that export production in Australia must be increased by 25 per cent to meet overseas exchange needs of the present population. This means that import restrictions are with Australia indefinitely and will intensify as the population grows unless a magical reconstruction of agriculture becomes possible.\(^1^4\)

The migration policy of the government did not pass without criticism. The Labor Party called it too high and inflationary. While the government of New South Wales said it would "... cause dangerous inflation".\(^1^5\) The Victorian Institute of Public Affairs thought that Australia should reduce its migration program. IPA felt that "... if Australia continues on her present path only remarkable good fortune will prevent an economic smash-up".\(^1^6\) C. P. Puzey, Director of the Australian Industries Development Association has this to say on the subject. "The question is not, can we afford migrants? but can we afford not to have migrants?\(^1^7\)

\(^{1^4}\)Melbourne Herald, January 27, 1956.

\(^{1^5}\)Melbourne Argus, January 13, 1956.

\(^{1^6}\)Melbourne Herald, April 7, 1956.

\(^{1^7}\)Melbourne Age, April 12, 1956.
Another comment in favor of migration comes from A. N. Curphey, General Manager of the Chamber of Manufactures of the Chamber of Commerce.

The demand that Australia scale down her migration programme in an attempt to arrest the inflationary trend is both short-sighted and suicidal. Australia needs, as never before, a steady and increasing flow of healthy, energetic migrants to help forward the vast developmental works essential if Australia is to maintain the spectacular progress she has made in the past decade.\(^\text{18}\)

All sides agree that migration is necessary for the development and security of Australia but they disagree on what the rate of intake should be. This again brings up a basic question that has to be answered for the Australian government and that is how fast should it develop its country.

**Water resources.** A large part of Australia requires much more water than is supplied by the rainfall for successful agriculture. Larger supplies of permanent water are needed for the further development of the primary industries. In the "outback"\(^\text{19}\) water is the governing factor of all human existence and activities, as well as

\(^{18}\)Melbourne Age, April 12, 1956.

\(^{19}\)"Outback" is one of several terms which refer to the vast interior of Australia. Other terms are the "inland" or "back of beyond". All refer to the arid, very lightly populated, and to some extent unexplored interior of the continent.
the key to any development program. No fact about Australia is more impressive than its lack of rivers. Perennial streams are restricted to a comparatively narrow strip along the northern and eastern coasts and to a small area in the extreme southwest. The central basin has two large drainage systems—the Lake Eyre basin and the Murray basin. The former is dry and there has been no permanent water in much of this area for as long as the aborigine can remember. The Murray basin contains the only river system worthy of its name, but even the Murray ceases to flow on occasions. The remaining rivers are coastal streams and are more or less perennial, except in the northwest. The Murray basin has an area of 414,000 square miles and an average rainfall of only 17 inches. It yields a meager 10 million acre feet per annum.20 There are few permanent lakes in Australia and with the exception of Tasmania they have only very local use as a source of water supply.

20 This may be contrasted with the United States, which has 10 rivers with yields greater than the Murray, their basins cover 2/3 of the country's area and they yield an aggregate flow more than 90 times that of the Murray. For example the Columbia River has an annual flow of 143 acre feet and the Mississippi River has a flow twice as much as all the streams in Australia together. Rural Research in CSIRO, #12, June, 1956, "Problems of the Arid Zone", pp. 16.
Australia has the distinction of possessing the largest artesian basin in the world, as well as a number of smaller basins. Underground water from artesian sources is obtainable over approximately 1/3 of the continent's area, and because of the scanty rainfall and the lack of surface water it is these underground supplies which have made pastoral settlement, and even the mining operations, of the "inland" possible.

The coastal rivers are all relatively small, but their conservation and development of their yields is of great importance, since it is from these streams that a large proportion of the urban industrial requirements of Australia must be supplied as well as rural requirements on the fertile coastal strip. Water is, thus, Australia's direst need at the present if it is to continue to develop. Facing this difficulty, Australia has made some, but not enough progress in the estimation of the Department of National Development.

Power resources. A half century ago power generation was almost exclusively in private hands but the position has since changed and government instrumentalities now own nearly all central power stations. Under the Australian federal system, jurisdiction over electric power generation is a residual function left to the states, and each state now has a semi-autonomous agency responsible for the
control of electric power production and distribution and for generating and distributing power by its own facilities.

Australia's power requirements come from three basic sources--coal, hydro-electric, and petroleum. By far the most important source of energy is coal. The deficiency of water resources imposes a severe limitation on the generation of hydro-electric power in Australia. In Tasmania hydro-electric resources have been estimated at about 50 per cent of the total Australian potential. Where on the mainland the chief source of energy is coal, water occupies this position in Tasmania.

The unprecedented demand for electric power since World War II has resulted in giving electric power projects high priority among state government undertakings. Even though considerable expansion has taken place, adequate reserves of generating capacity are not likely in the immediate future.

The Australian government is now turning to atomic energy as a potential source of power. On October 11, 1954 the Australian Minister of Supply announced that Australia was to undertake a five year atomic research program to develop the best method of producing atomic power for industry. The British government has offered to make available information received in their operations to aid the Australian government in its quest. Also extensive deposits of
uranium have been found in Australia to supply the needed raw material. The National University has set up an atomic reactor to carry out these experiments.

For all practical purposes Australia is entirely dependent on imported petroleum. Extensive surveys are at present being carried out in an effort to locate oil, but so far these efforts have proved unsuccessful. Therefore Australia's future power potential is dependent upon coal and water for the present. With the new developments of brown coal in Victoria and New South Wales a continued supply of coal is assured for a while. In time hydro-electric power will become more important. Some day atomic power may supply the nation's needs.

**Transportation and communications.** Most of the public transportation facilities are government owned and operated, but privately owned lines are prominent in the field of motor transport; in shipping; and in commercial air transport. Australia's network of roads is considerably below United States standards but relative to the vast distances and scant population it is fairly well developed.\(^\text{21}\) Road construction and maintenance are the responsibilities of the

\(^{21}\text{Investment in Australia, U.S. Department of Commerce. June, 1956, p. 61.}\)
state governments within their borders and of the Commonwealth in the Australian Territories. State government resources have proved to be inadequate to build and maintain the necessary highways. The Commonwealth government, though, has for several years made annual grants to the states to assist their highway programs.

As of June, 1954, Australia had a total of 521,500 miles of roads, of which 153,589 miles were paved. Paved roads connect all of the capital cities of the mainland states except for the Adelaide-Perth highway crossing the uninhabited Nullabor Plains.22

Long-distance commercial highway transportation has been retarded in Australia by strict government control. It was determined many years ago that the federal government lacked power to regulate interstate transport, but the state governments began to assert control during the 1930's when competition between motor transport and the state-owned railways for the reduced traffic then available began to cut deeply into railway revenues. The general policy followed was to prohibit motor transport services from competing directly with rail services. The acute need for transportation during the war caused the policy to be relaxed somewhat,

and, since the demand for transportation in postwar years has been greater than the railroads were able to supply, direct competition was allowed to continue. Road haulage has been heavily taxed both to assist in the upkeep of highways and to equate the cost of shipping by road and by rail. Despite the taxes, the motor-freight business has grown rapidly. To date transportation costs have been one of the chief factors of high production costs in Australia.

The greatest obstacle to efficient railway operations in Australia is the different gauge which prevents through shipments of goods from state to state. The situation has existed since the beginning of railway construction in Australia. This situation

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23 Because of decisions of the Privy Council in 1954 and 1955 both the Commonwealth and state governments will find it hard to devise effective legal means of regulating any type of interstate commerce. In 1954 the Privy Council declared that the provisions of the legislation relating to interstate hauling of goods contravened Section 92 of the Australian Constitution, which provides that commerce between the states shall be "absolutely free". Legislation was passed to circumvent this decision and in 1955 the High Court declared it to be unconstitutional. Investment in Australia, p. 61.

24 Rail lines in New South Wales are 56 1/2 inch gauge; in Victoria, 63 inch gauge; in Queensland and Western Australia, 42 inch gauge. South Australia initially adopted the 63 inch gauge but later built the north-south transcontinental railway line as 42 inch gauge and one division used 30 inch lines. The Trans-Australia line, built by the Commonwealth, is 56 1/2 inch gauge, which is now generally accepted as standard.
results in extensive trans-shipment in the movement of freight, passengers, and goods. Under these circumstances, interstate freight rates naturally have been very high. According to evidence recently before the Tariff Board, ocean freight charges between the United Kingdom and Perth currently are less than rail or coastal steamer freight charges from Sydney to Perth.\(^{25}\) It has long been generally recognized that variations in gauge have retarded the development of the economy.

Difficulties confronting the Australian railways basically derive from the great distances and sparse population of Australia and from efforts to use the railways as an instrument of development. At the same time there is an attempt to make the railways profitable. Only a small proportion of the Australian continent generates enough traffic to support modern railway services. Lines into other areas, constructed principally for development purposes, naturally operate at a deficit. In addition, certain commodities are carried at concessional freight rates to stimulate their production.

Consequently, the railway authorities in each state seemingly would be justified in operating the developmental services at a loss and charging the deficit to developmental expenditure. However,

\(^{25}\textit{Investment in Australia},\ p.\ 62.\)
freight rates generally are set at levels designed to make the systems almost self-supporting, a practice probably attributed originally to public pressures to eliminate recurring deficits. The end result has been high freight rates, which have contributed to high domestic costs of production and have led to state governments following policies detrimental to the development of other means of transportation which are more economical under certain circumstances. The results of these higher production costs are presently being felt as Australia tries to expand its exports in a competitive world market.

Air transportation is extremely important in Australia because of the continent's vast distances and concentration of population and means of land transportation in south-eastern Australia and along the eastern and southern seaboard. Wide spread air services have been developed and cover nearly all parts of Australia. Australia leads the world in freight ton-miles per capita, and is second only to the United States in passenger-miles per capita. The airlines provide rapid and fairly-frequent mail, passenger, and freight service at low cost\(^26\) not only to the populus

\(^{26}\)According to the International Civil Aviation Organization, Australia's average passenger and freight rates are the lowest in the world.
areas of Australia but also to the "outback" which formerly was virtually cut off from contacts with the more developed parts of the country.

Australia has good communications services, both domestic and international. Direct telephone and telegraph communications is available to the United States and the United Kingdom, and through these channels to most other countries. Regular mail service and fast airmail service operate to virtually all foreign countries. Communications within Australia are widespread and efficient. Internal telecommunications, including radio and landline telegraph and telephone services have been owned and operated by the Commonwealth government for many years.

Industrial relations. In Australia, the unique feature of industrial relations--compulsory arbitration--substantially modifies the familiar collective bargaining method of determining wages, hours, and conditions of employment. Compulsory arbitration in Australia has been established by legislation of the Commonwealth and the states and features arbitration and conciliation courts or boards and conciliation commissioners, who have power to make awards binding on both employers and employees. The compulsory arbitration system does not wholly eliminate collective bargaining though.
Wages in Australia are fixed by a number of authorities. These include Commonwealth and state commissions and some special regulating bodies. Only a few workers, mainly rural workers, are not covered by awards of one or other of these authorities. The Commonwealth authorities dominate the field of wage regulation covering almost half of the wage earners. When Commonwealth and state awards are in conflict the former override the latter.

From 1922 to September 1953, the Commonwealth basic wage was adjusted automatically to variations in a retail price index on a quarterly basis. Since September, 1953, the Commonwealth has dropped the quarterly adjustment feature of the basic wage. Victoria, under its legislation, continued to make the adjustments applicable only to persons covered by state awards. The other states followed the federal pattern and eliminated the quarterly adjustments for workers covered by state awards. Recently as a result of increases in the price index, all states except South Australia reinstituted automatic adjustments to the basic wage, thereby creating inequities between workers covered by state and federal awards. Political pressure to restore the automatic adjustments to cover federal awards also was an important issue in the 1955 federal election. This was also an issue in the Premiers Conference on
inflation in August, 1956. This cost of living wage arrangement has added to the country's difficulties in regard to inflation and high prices for its exports.

The Government

The Commonwealth of Australia is an independent member of the British Commonwealth of Nations. The Commonwealth has full, sovereign powers to legislate on any subject delegated to the Commonwealth government by the Constitution of 1901. The federal structure of Australia reserves broad powers to the six states.

Widespread acceptance in Australia of the need for concerted action to assure prosperity and expand economic frontiers has led government to exercise a powerful influence on economic affairs. Many techniques are employed—exchange controls, taxation, tariffs, import controls, etc.—to carry out a variety of policies in the face of a changing economic climate. The Commonwealth government's activities are far more important than those of the states. It makes its influences effective in three major ways: (1) through its regulatory powers, (2) as a competitor, and (3) in its advisory capacity.

The Commonwealth government has the sole income taxing power, although it turns over a portion of these revenues to the states. The government's policy is to maintain a balanced budget, and it rarely has difficulty accomplishing this goal. The level of
economic activity is influenced by varying the public works program which is financed from loan proceeds. Fiscal policies are also affected by the practices of the Commonwealth Bank. This institution performs all the general central banking functions, although, it also engages in the general banking business. Its powers have been used to combat inflation since the war. As a competitor, the Commonwealth government is a major influence on banking, shipping, airlines, and communications. State governments own and operate railroads, coal mines, and power plants. The principal reason for such participation is probably the failure of private enterprise to provide such facilities and the importance to other entrepreneurs of having such facilities available at a reasonable cost. An example of this is the nationally-owned airline, TAA, which is required to serve extensive areas of the underdeveloped "outback", even at a loss. Contrary to widespread opinion, the Commonwealth is not particularly socialistic, and nationalization is not a popular concept in Australia.

In the field of research the federal government plays a valuable role to private industry. The Commonwealth Scientific and Industrial Research Organization (CSIRO) is in the forefront of a wide variety of technological advances. Perhaps its most notable achievement has been the introduction of a fatal virus disease
affecting only rabbits. This virus has killed a half billion of this once prevalent pest and aided in the beginning of the solution to a century-old problem for the sheep stations. Many other agencies of government are actively promoting new markets for exports, attracting new foreign investment, and providing information on technical matters to private enterprise. The government plays an important and vital role in the economic development of Australia.

Summary

Like most achievements of Britons, even transplanted ones, the development of Australia up to the Second World War had been solid. But, apart from the glitter of an occasional gold rush in the nineteenth century, there was little spectacular about it. The country had been won, not by conquest, but by peaceful and unchallenged settlement. Australia was settled by hard work. Pioneering has even been seen in recent years, as the search for oil, uranium, and other new resources has come into the picture.

Australia is the most level in surface and regular in outline of all the continents. Geologically, it is one of the oldest. Population distribution and conditions of life have been largely determined by these facts and by their effects on climate, rainfall, rivers, plant life, and the exploitation of the land industry. Although Australia has rich coastal lands and vast pastoral areas, much of the interior
light-rainfall areas are unsuited for agriculture, since they are
deficient in natural water. Even if water could be stored artificially,
it would be at great expense and would serve only limited areas.
Thus, it is a mistake to suppose that Australia could readily absorb
an unlimited number of settlers.

Several factors have brought about the high metropolitan and
low rural distribution of population. Australia is rapidly building up
important manufacturers usually in or near the capital cities where
transport, light and power, and labor reserves are important con-
siderations. Also the mechanization of agriculture and the growing
application of science to farming generally has released rural
workers for urban factories and for the service industries.

After World War II Australia embarked boldly on its eco-
nomic development program. From 1945 onwards the whole
Federation boomed with plans for development. Each of the six
state governments, the federal government, and private enterprise
independently staked out claims to the resources available for capital
formation. Not very much regard was paid either to the overall
supply of resources or to the likelihood of the supply of finance being
sustained over a sufficiently long period to ensure continuity of
capital funds up to the completion of the projects. Moreover, little
coordination of investment was in evidence. It was blithely assumed
by most parties to the proposed economic expansion that somehow or
other adequate finance and physical resources would be both available
for any scheme that might be proposed. Thus Australia's current
development program was entered into.
The Significance of the Balance of Payments

A nation's balance of international payments is an itemized account of all the country's economic transactions with the rest of the world. This is for a stated period of time, generally one year. The Australian balance of payments is on a yearly basis beginning with the first of July and ending with the last of June. The balance of payments of a country is important for several reasons. An important use of such a balance is to provide information about a country's financial status and its stage of economic development. The balance of payments may also show information regarding problems of exchange rates. A study of a nation's balance of payments can reveal much about the country's internal economic conditions. A comparison of the size of its current international transactions with its current output and consumption indicates the extent to which the economic life of the country is dependent upon international trade.

The chief item of the balance of payments is normally the international trade in commodities. Imports and exports of commodities are called visible imports and exports. Services rendered abroad or received from foreigners are part of what is called
invisible exports and imports. For Australia the invisibles are of minor importance as compared with the visible trade.

It is customary to divide the balance of payments items into items on current account and those on capital account.

Items on the current account are imports and exports of goods and services plus a number of foreign transactions of a "current" rather than "capital" nature. For example, investment income payable abroad or payable by foreigners, interest payments on public authority debt domiciled abroad, cash and personal effects of immigrants or emigrants, can all be considered as items on current account.

The balance of payments on capital account records changes in claims of residents of a country on residents of other countries, and changes in liabilities owed. Capital account comprises both long-term and short-term loans. Movements in monetary gold and reserves of foreign currencies are usually recorded in the balance of payments on capital account. Commercial gold imports and exports are generally recorded in the balance of payments on current account and are treated like ordinary commodity transactions.

When all entries in the balance of payments have been made correctly, and gold movements and changes in holdings of foreign money are included, the sum of all credit items should be equal to
the sum of all debit items. In other words, the balance of payments should always be in balance. In reality, we cannot assume that all entries are correct and complete. It is hard to estimate some items and it is not always possible to avoid omissions and inaccuracies. Usually, therefore, the balance of payments will include an item, errors and omissions, which item may be quite substantial.

Equilibrium in the Balance of Payments

In a sense, the balance of payments always balances. Yet, frequently the term "disequilibrium" in the balance of payments is used. Obviously then, equilibrium in the balance of payments usually has a meaning quite different from the technical interpretation of a balance so constructed that it always balances.

This can be explained as follows. If disequilibrium exists, a possibility which is generally recognized, there must be items in the balance of payments that are there only because they fill a gap which otherwise would have existed between payments and receipts. These items cause a technical equality where otherwise there would have been an excess of total debt over total credit items or vice versa. Movements of monetary gold or foreign currency reserves fall in this class of what are sometimes called "accommodating items", as distinct from "autonomous items".
Whenever a country owes more abroad than it can claim from foreigners and cannot obtain credit for the difference, it will have to pay. It can make up the difference by paying in gold or with reserves of foreign currency. But such payments are made for the very same reason that there is what might be called a "deficit" in the balance of payments on current account. In the opposite case, gold is received, or foreign currency reserves increased, because there is a "surplus" in the balance of payments on current account.

It may be, of course, that credit is received or extended to cover the gap. The difference might even be granted as an outright gift. Such a loan or gift, for example from one government to another, is of the same nature. Like the gold payment, it is a transaction for the express purpose of closing a gap in the balance of payments on current account.

There are various kinds of "accommodating items". Examples given by J. M. Meade of such items since the war include the Anglo-American loan of 1946, some of the Marshall Plan Aid, and the acquisition of citizens' private holdings of foreign assets as practiced by many governments in the postwar period in order to ease the strain on their balance of payments on current account.¹

¹J. E. Meade, The Balance of Payments, Chapter 1.
All such items have this in common that they are there for the express purpose of filling a gap in the balance of payments on current account.

All items that are not accommodating in the above sense are "autonomous items". They are there regardless of the balance of payments position. Examples of such autonomous items are nearly all international commodity transactions and long-term investments.

The balance of payments is in equilibrium whenever the debit and credit claims arising from the exchange of goods and services and investment transactions, excluding short-term capital movements, cancel out. Under these conditions movements of gold or short-term capital are unnecessary to pay for unfavorable debit balances. Sales of goods, services, and long-term loans provide the payment for goods and services.

If a situation of disequilibrium in the balance of payments exists an adjustment of the underlying factors governing the international flow of transactions to induce a new equilibrium, in the absence of direct controls, is necessary and inevitable. The process of adjustment can take many forms and vary widely depending upon the type of government policy.
Meade classifies the typical methods of adjustment as financial policy, price adjustment, and direct controls. Financial policy includes both monetary and fiscal policies which are designed to alter the levels of expenditure and hence income. Price adjustments includes alterations in the general price level (including exchange rates) as a matter of conscious government policy. Direct controls are aimed at the regulation of particular items in the balance of payments.

There must be at least two broad goals of policy, that is, to have both an external and an internal balance. To have an external balance means to keep the balance of payments in equilibrium. While to have an internal balance means to have stable levels of domestic employment and income. There is some combination of policies which would permit all nations to pursue both policies of external and internal balance simultaneously. However, to achieve such a policy is by no means assured. Its achievement rests on precarious grounds. The nations involved may not recognize the problems which are the basis of internal and external disequilibrium. Even when the causes are known it is not always possible to specify the exact amount of the adjustment necessary to bring about equilibrium. It is necessary for all of the
nations to see that the proper policy changes are undertaken to bring about equilibrium.

The importance of financial policy in the adjustment process is due to the effects of changes in the level of domestic expenditures on the balance of payments. The level and composition of economic activity in every nation is interdependent, the government of any nation can, by creating conditions conducive to an expansion of domestic expenditure, cause a change in the level of national income, the value of imports, and hence the balance of payments.

Any government has two broad policies to gain the desired financial results. These are fiscal policy and monetary policy. Domestic problems can and will diminish the effectiveness of these policies. Income levels may not be sensitive to government policy. This can be due to the inflexibilities in the price structure, to immobile factors of production, or to monopoly.

There will be many problems involved in price adjustments, particularly in relation to adjustments in money wages. It is possible to follow a reasonably tight policy with respect to exchange rates due to the comparative centralization of transactions. It is harder to exert controls over transactions between workers and employers. Therefore there is reason to expect more effective exchange rate control than wage and price control.
Price adjustment is not likely to be effective in attaining full equilibrium whether it is attempted via wage rate or exchange rate changes. The price adjustments result mainly in the reallocation of a given level of combined aggregate demand. Where there is a surplus or a deficit of that demand, attempts to use price adjustments will lead to contradictions in policy. Thus any disequilibrium is likely to develop into a worse situation.

Neither price adjustments nor financial adjustments alone are adequate to maintain a continuous state of adjustment between countries. Both policies must be used. Direct controls should be used as a last resort.

The problem is one of maintaining an appropriate level of combined aggregate demand and an appropriate allocation of that aggregate demand. From a practical point of view it must be stated that it would prove to be a difficult thing to apply policies in any degree of precision. The wrong move could prove to be costly. Thus a basic problem would appear to be one of making the proper analysis and proscribing the proper cure. This has always been a problem in policy making.

Gold and short-term capital are essentially adjustment items in the balance of payments. They will move in response to the appearance of disequilibria in the international payments account.
This movement cannot continue indefinitely in one direction. Also, they are important factors in the process of reestablishing a stable equilibrium in the balance of payments.

Short-term capital flows are one of the most serious disturbers of international equilibrium, both because of their magnitude and because of the suddenness with which they move. When confidence in the economic and political backgrounds gives way to fears of the future, particularly fears of currency instability, chaos may be threatened in the economy concerned. Thus, it may be noted that autonomous items may be of a very temporary nature. If money flows in for speculative reasons ("hot money")\(^2\) or as the result of political fears (international "flight capital"), then these are autonomous items. But such funds may be withdrawn at any time, and differ greatly from autonomous long-term investments that may go on for years. If the balance of payments on current account should be in "equilibrium" because the autonomous items (including a large amount of "hot money") balance, this equilibrium is a very precarious one.

\(^2\)This was the case in Australia during the first five years after World War II in the expectation of the appreciation of the Australian pound in relation to the pound sterling.
Also, it is possible that commodity trade has been interfered with because of balance of payments difficulties. In Australia, for example, import restrictions have been applied in the past for the express purpose of conserving or increasing foreign currency reserves. The maintenance of such restrictions may be regarded as an indication of an underlying disequilibrium in the balance of payments on current account, even if accommodating items are absent.

It is also possible that equilibrium in the balance of payments on current account is maintained at a high cost in unemployment. Such can be the case when a balancing of debit and credit items requires the carrying out of a strong deflationary policy. If wages and prices are kept low, imports are discouraged because foreign goods are relatively more expensive than domestic goods. Exports, at the same time, are encouraged because foreign buyers are attracted by the low prices. But the result of such a policy may well be persistent and substantial unemployment at home, and many people would doubt if a balancing of credits and debits at such a cost indicates an equilibrium in the balance of payments on current account. However, some deflation and unemployment are at times part of the adjustment mechanism for achieving equilibrium in the balance of payments.
There can be little doubt, in view of the exchange controls, temporary import restrictions, and the like that the period since World War II in Australia has been one of widespread disequilibrium in the balance of payments on current account.

The General Nature of Australia's Balance of Payments

Australia's international trade relationships has been distinguished by the relatively high ratio between exports and gross national product of one to four in 1950/1951 and one to six in 1954/1955, (see Table 1), and the traditionally dominant effect of wool and a few other exports on the gross national product and on the volume of trade with the rest of the world. Foreign capital also has played an important role in Australia's trade and development. With the great developmental efforts now being made, substantial foreign investment has become a practical necessity to fill the gap between domestic savings and the total requirements of investment capital.

In examining the nature of the balance of payments during the period from 1928/1929 to 1938/1939 it is found that in the early part of the period the adjustments were made by three expedients.

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<td>22.0</td>
</tr>
<tr>
<td>1920/21--1924/25*</td>
<td>20.0</td>
<td>19.0</td>
</tr>
<tr>
<td>1925/26--1929/30*</td>
<td>18.0</td>
<td>16.0</td>
</tr>
<tr>
<td>1930/31--1934/35</td>
<td>11.1</td>
<td>14.7</td>
</tr>
<tr>
<td>1935/36--1939/40</td>
<td>14.4</td>
<td>14.8</td>
</tr>
<tr>
<td>1940/41--1944/45</td>
<td>19.4</td>
<td>19.9</td>
</tr>
<tr>
<td>1945/46--1949/50</td>
<td>18.8</td>
<td>19.1</td>
</tr>
<tr>
<td>1950/51--1954/55</td>
<td>20.5</td>
<td>19.3</td>
</tr>
<tr>
<td>1950/51</td>
<td>23.2</td>
<td>27.0</td>
</tr>
<tr>
<td>1951/52</td>
<td>31.3</td>
<td>17.3</td>
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<tr>
<td>1952/53</td>
<td>14.0</td>
<td>20.1</td>
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<tr>
<td>1953/54</td>
<td>16.5</td>
<td>17.8</td>
</tr>
<tr>
<td>1954/55</td>
<td>19.4</td>
<td>15.8</td>
</tr>
<tr>
<td>1955/56 (est.)</td>
<td>17.2</td>
<td>14.4</td>
</tr>
<tr>
<td>1955/56 (&quot;Normal&quot;)</td>
<td>19.3</td>
<td>14.4</td>
</tr>
</tbody>
</table>

* Rough estimates

These were exports of gold, overdrafts in London, and the retention of some funds in Australia. The years after 1932 saw the terms of trade run against Australia as commodity prices dropped. Imports were severely limited to achieve a balance. (see Table 2).

The reduction in imports was in part due to a special tariff on imports during the depression, and in part to frequent changes in exchange rates. But in addition there was a heavy decline in spending power caused by the reduced level of economic activity and the fall in national income. A quick drop in imports is usually an indication of lessened economic activity, and as shown by investigation over long periods there is a close association between changes in the level of imports and in the state of internal economic activity. Economic recovery began in 1932 and extended into the war years. This was due in part to the more favorable export prices of 1936 and 1937.

4 The funds belonged to foreigners but were retained in Australia on account of the high exchange rate. They were temporarily invested in Australian securities.

5 This is due to the fact that Australia is primarily an exporter of raw materials and agricultural commodities while its imports consist largely of manufactured items.
### TABLE 2

AUSTRALIAN TERMS OF TRADE, 1936/37 to 1938/39 = 100

<table>
<thead>
<tr>
<th>Annual Average</th>
<th>Export price index (excluding gold)</th>
<th>Import price index (Commonwealth Bank)</th>
<th>Terms of Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925/26-1929/30</td>
<td>119</td>
<td>106#</td>
<td>112</td>
</tr>
<tr>
<td>1930/31-1934/35</td>
<td>76</td>
<td>97</td>
<td>79</td>
</tr>
<tr>
<td>1935/36-1939/40</td>
<td>98</td>
<td>102</td>
<td>97</td>
</tr>
<tr>
<td>1940/41-1944/45</td>
<td>114</td>
<td>174</td>
<td>66</td>
</tr>
<tr>
<td>1945/46-1949/50</td>
<td>280</td>
<td>261</td>
<td>104</td>
</tr>
<tr>
<td>1950/51-1954/55</td>
<td>527</td>
<td>396</td>
<td>134</td>
</tr>
<tr>
<td>1950/51</td>
<td>690</td>
<td>374</td>
<td>184</td>
</tr>
<tr>
<td>1951/52</td>
<td>495</td>
<td>421</td>
<td>118</td>
</tr>
<tr>
<td>1952/53</td>
<td>505</td>
<td>398</td>
<td>127</td>
</tr>
<tr>
<td>1953/54</td>
<td>496</td>
<td>390</td>
<td>127</td>
</tr>
<tr>
<td>1954/55</td>
<td>450</td>
<td>396*</td>
<td>114</td>
</tr>
<tr>
<td>1955 (Dec. qtr.)</td>
<td>409*</td>
<td>406*</td>
<td>101</td>
</tr>
</tbody>
</table>

* # Partly estimated
* * Subject to revision

An indication of how vulnerable Australia's balance of payments has been to world recession is shown by Table 3. In 1928/29 and 1929/30 Australia had an unfavorable balance on current account of Lr124.6 million. Less than Lr20 million of this deficit could be financed by public authority borrowing on the open market and the remainder had necessarily to be covered by reduction in gold holdings and international reserves, increased government overdrafts with English banks and a small amount of capital inflow into Australia.  

By 1931/32 Australia achieved a favorable balance on current account and a fairly stable period followed until the world recession time. Australia needed loans for her development, thus, borrowing was necessary. But much of the borrowed money was spent foolishly and wasted; so that the interest became a burden, where the loan money had not been spent on reproductive assets. Then just as Australia was getting into difficulties, borrowing ceased, at the worst possible moment. This was not the fault of anyone in particular, for the world depression made it impossible for anyone to lend; but it added to Australia’s difficulties.

---


### TABLE 3

**AUSTRALIA: BALANCE OF PAYMENTS ON CURRENT ACCOUNT, 1928/29 TO FIRST HALF OF 1955/56**

*(b MILLIONS)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports</th>
<th>Imports</th>
<th>Trade Balance</th>
<th>Invisibles</th>
<th>Balance on Current Account</th>
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</thead>
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<tr>
<td>1928/29</td>
<td>136.9</td>
<td>133.5</td>
<td>3.4</td>
<td>48.2</td>
<td>44.8</td>
</tr>
<tr>
<td>1929/30</td>
<td>96.1</td>
<td>123.4</td>
<td>-27.3</td>
<td>-54.5</td>
<td>-79.8</td>
</tr>
<tr>
<td>1930/31</td>
<td>89.8</td>
<td>61.8</td>
<td>28.0</td>
<td>-46.6</td>
<td>-18.6</td>
</tr>
<tr>
<td>1931/32</td>
<td>96.9</td>
<td>50.6</td>
<td>46.3</td>
<td>-36.5</td>
<td>9.8</td>
</tr>
<tr>
<td>1932/33</td>
<td>98.7</td>
<td>64.5</td>
<td>34.2</td>
<td>-37.6</td>
<td>-3.4</td>
</tr>
<tr>
<td>1933/34</td>
<td>114.2</td>
<td>67.5</td>
<td>46.7</td>
<td>-37.5</td>
<td>9.2</td>
</tr>
<tr>
<td>1934/35</td>
<td>103.4</td>
<td>82.3</td>
<td>21.1</td>
<td>-36.6</td>
<td>-15.5</td>
</tr>
<tr>
<td>1935/36</td>
<td>124.1</td>
<td>94.9</td>
<td>29.2</td>
<td>-38.9</td>
<td>-9.7</td>
</tr>
<tr>
<td>1936/37</td>
<td>148.2</td>
<td>103.0</td>
<td>45.2</td>
<td>-34.9</td>
<td>10.3</td>
</tr>
<tr>
<td>1937/38</td>
<td>141.3</td>
<td>127.2</td>
<td>14.1</td>
<td>-37.7</td>
<td>-23.6</td>
</tr>
<tr>
<td>1938/39</td>
<td>122.1</td>
<td>109.4</td>
<td>12.7</td>
<td>-35.3</td>
<td>-22.6</td>
</tr>
<tr>
<td>1939/40</td>
<td>151.5</td>
<td>123.3</td>
<td>28.2</td>
<td>-53.4</td>
<td>-25.2</td>
</tr>
<tr>
<td>1940/41</td>
<td>144.4</td>
<td>102.1</td>
<td>42.3</td>
<td>-78.2</td>
<td>-35.9</td>
</tr>
<tr>
<td>1941/42</td>
<td>133.1</td>
<td>105.1</td>
<td>28.0</td>
<td>-59.6</td>
<td>-31.6</td>
</tr>
<tr>
<td>1942/43</td>
<td>117.0</td>
<td>70.6</td>
<td>46.4</td>
<td>-61.9</td>
<td>-15.0</td>
</tr>
<tr>
<td>1943/44</td>
<td>136.4</td>
<td>69.1</td>
<td>67.3</td>
<td>27.0</td>
<td>94.3</td>
</tr>
<tr>
<td>1944/45</td>
<td>136.8</td>
<td>82.9</td>
<td>53.9</td>
<td>13.4</td>
<td>67.3</td>
</tr>
<tr>
<td>1945/46</td>
<td>150.0</td>
<td>110.2</td>
<td>39.8</td>
<td>5.6</td>
<td>45.4</td>
</tr>
<tr>
<td>1946/47</td>
<td>264.7</td>
<td>208.2</td>
<td>56.5</td>
<td>-104.8</td>
<td>-48.3</td>
</tr>
<tr>
<td>1947/48</td>
<td>396.9</td>
<td>337.8</td>
<td>59.1</td>
<td>-55.5</td>
<td>3.6</td>
</tr>
<tr>
<td>1948/49</td>
<td>521.7</td>
<td>415.1</td>
<td>106.6</td>
<td>-75.3</td>
<td>31.3</td>
</tr>
<tr>
<td>1949/50</td>
<td>593.1</td>
<td>538.1</td>
<td>55.0</td>
<td>-99.9</td>
<td>-44.9</td>
</tr>
<tr>
<td>1950/51</td>
<td>975.3</td>
<td>741.9</td>
<td>233.4</td>
<td>-132.3</td>
<td>101.1</td>
</tr>
<tr>
<td>1951/52</td>
<td>664.7</td>
<td>1051.5</td>
<td>-386.8</td>
<td>-198.8</td>
<td>-585.6</td>
</tr>
<tr>
<td>1952/53</td>
<td>864.2</td>
<td>511.1</td>
<td>335.1</td>
<td>-144.1</td>
<td>191.0</td>
</tr>
<tr>
<td>1953/54</td>
<td>811.7</td>
<td>683.0</td>
<td>128.7</td>
<td>-146.3</td>
<td>117.6</td>
</tr>
<tr>
<td>1954/55</td>
<td>761.4</td>
<td>846.9</td>
<td>-85.5</td>
<td>-172.9</td>
<td>-285.4</td>
</tr>
<tr>
<td>1955/56*</td>
<td>380.8</td>
<td>431.0</td>
<td>-32.2</td>
<td>-85.3</td>
<td>-117.5</td>
</tr>
</tbody>
</table>

* First half

Source: The Australian Balance of Payments 1928-29 to 1951-52, p. 38;
The Australian Balance of Payments 1950-51 to 1954-55, p.1;
From 1933 to the outbreak of war in 1939 recovery was steady. Most marked was the expansion of manufacturers. After the depression imports remained at a substantially lower level than before. This was due to the smaller income available overseas with which to purchase goods, for export prices remained low and overseas borrowing was not revived. Consequently the production of manufactured goods, previously imported, expanded rapidly. The greatest and most important development was that of the iron and steel industry. As manufacturing improved its position the mining industry was a little less prosperous. Prices, except for gold, fell heavily in the depression, but recovered well afterwards. The farmer was less successful in recovery from the depression, mainly due to extremely low prices on the oversupplied world market.

The primary producer was successful in getting preferences in the British market for his products as the result of the trade agreements made between Great Britain and the Dominions at the Ottawa Conference in 1932. The Ottawa agreement was intended to promote intra-Empire trade, to improve Empire markets and so to increase Empire prices and relieve the hardships of the various producers, which was developing just before the 1939/45 war. In 1937/38 and 1938/39 Australia's unfavorable balance on current
account was Lr 46.2 million and foreign exchange holdings fell by
Lr 32.5 million. The remainder of the deficit was met by overseas
borrowing (Lr 4.0 million) and some inflow of private capital
(including undistributed profits of subsidiaries of overseas companies).

The history of the depression of 1929/1933 is in many ways
similar to that of the 'nineties. Like the 'nineties it was ushered in
by a period of acute industrial unrest, due to attempts to reduce
wages. The slump was the product of several causes. Export
prices had been slowly falling, though their catastrophic drop was yet
to come; the industrial unrest had hurt trade; and overseas borrow-
ing had almost ceased. This alone caused a direct drop of nearly
Lr 30 million in the available spending power of the community, as
well as a further indirect loss due to those formerly employed on
public works losing their jobs. It also raised the problem of
meeting Australia's debts in London. For these--payments for
imports and interest payments--could only be met by London funds,
derived from the sales of exports or loans. Since the loans had
ceased the value of exports had to be increased. This was a difficult
matter when prices were falling and costs were high. The other
alternative was to cut imports.

\[8\text{Ibid., p. 157.}\]
The government tried to do both. An intensive "grow more wheat" campaign led to a record harvest in 1930\(^9\) which was almost maintained in the next two years. In 1931/32 wheat exports were over 80 per cent greater in volume than before the depression; butter exports more than doubled; mutton increased nearly two and a half times; sugar doubled; beef increased by a third; flour by a quarter; wool by nearly 10 per cent. But all was of little avail because of the catastrophic fall in prices. In value, exports in 1931/32 were worth £ Stg. 80 million, or about 55 per cent the value in 1928/29.\(^{10}\)

So imports had to be drastically cut. Higher tariffs were imposed, then absolute prohibitions. The value of imports fell from £ 150 million in 1928/29 to less than £ 50 million in 1931/32 leaving a balance of £ 40 million available to pay the interest on the overseas debt.\(^{11}\)

Australia had suffered a substantial fall in her national income owing to the cessation of borrowing from overseas and the lower prices for her exports. At first this was borne almost entirely by those put out of work by the stopping of the public works previously

\(^9\)214,000,000 bushels from 18,000,000 acres with the aid of a favorable season. \textit{Ibid.}, p. 183.

\(^{10}\)D. B. Copeland, \textit{The Australian Economy}, p. 176.

financed by overseas loans. The reduction of imports also hurt the merchants and those employed in commerce and transportation. Those whose income was dependent upon exports were injured due to lower export prices. These losses were outside Australian control. Australians could not raise overseas prices, or persuade people again to lend them money.

Fundamentally, as 40 years earlier, the depression was caused because of the catastrophic fall in the prices of Australia's products, particularly wool and wheat. This burden was increased by over borrowing in the past and by the cessation of borrowing at that time. Attempts were undertaken to overcome this hardship. This was done by extending imperial preferences, either by lowering (tariff) barriers between Empire members or by raising them against others. The former alternative was favored in theory, but it was the latter which was generally adopted in practice. Australia became regarded as a bad trader as the result of imperial preferences since many of Australia's products had to be sold to non-Empire sources. The result was disastrous for Australia as some non-Empire nations drastically cut their purchases from Australia and sought other sources of supply or synthetic products. Thus the Australians recognized the need to negotiate trade agreements with
foreign countries. The scheme of imperial self-sufficiency was a recognized failure as far as Australia was concerned.

During the decade 1929/1939 exports of primary products remained prominent and contributed 95 per cent of total exports. Almost half were pastoral products, almost a quarter agricultural, just under one tenth were dairy products. But manufacturers were increasing; iron and steel products were sent to England in 1938, and over eight per cent of exports were manufactured goods in 1939/40 (mainly sent to New Zealand) compared with only two per cent in 1913.\textsuperscript{12}

In 1939 Australia still depended on primary products for her prosperity. A quarter of the national income came from primary production and only 22 per cent from manufacturing compared with 29 per cent and 30 per cent respectively in 1921/22. Nearly half of the primary products are exported. As long as this was the case Australia had to attend to her overseas markets; she could not shut herself off from the world; for changes in the prices of her exports have great effects on her prosperity, on the employment available for her citizens and her standard of living.\textsuperscript{13} The importance of Australia’s primary products in her export trade is indicated by Table 4.

\begin{itemize}
  \item \textsuperscript{12}Ibid., p. 23.
  \item \textsuperscript{13}D. B. Copland, Op. Cit., p. 89.
\end{itemize}
TABLE 4

AUSTRALIAN EXPORTS: PRINCIPAL COMMODITIES AS PERCENTAGES OF TOTAL

<table>
<thead>
<tr>
<th></th>
<th>1928/29</th>
<th>1932/33</th>
<th>1936/37</th>
<th>1945/46</th>
<th>1950/51</th>
<th>1954/55</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wooll</td>
<td>44.4</td>
<td>37.0</td>
<td>37.1</td>
<td>43.0</td>
<td>52.2</td>
<td>46.6</td>
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<tr>
<td>Wheat &amp; flour</td>
<td>19.0</td>
<td>22.3</td>
<td>15.7</td>
<td>15.4</td>
<td>10.1</td>
<td>8.7</td>
</tr>
<tr>
<td>Butter</td>
<td>5.2</td>
<td>9.1</td>
<td>7.9</td>
<td>4.5</td>
<td>2.1</td>
<td>3.2</td>
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<tr>
<td>Sugar</td>
<td>1.7</td>
<td>1.5</td>
<td>2.9</td>
<td>2.4</td>
<td>2.6</td>
<td>4.1</td>
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<tr>
<td>Meats</td>
<td>4.6</td>
<td>6.1</td>
<td>8.4</td>
<td>5.8</td>
<td>6.2</td>
<td>8.4</td>
</tr>
<tr>
<td>Hides &amp; skins</td>
<td>6.7</td>
<td>2.4</td>
<td>4.3</td>
<td>3.2</td>
<td>2.6</td>
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<td>Lead</td>
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<td>2.4</td>
<td>3.4</td>
<td>3.3</td>
<td>3.0</td>
<td>3.3</td>
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<tr>
<td>Dried fruits</td>
<td>1.7</td>
<td>2.3</td>
<td>1.9</td>
<td>.7</td>
<td>.8</td>
<td>1.1</td>
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<tr>
<td>Fresh fruits</td>
<td>.7</td>
<td>2.5</td>
<td>1.5</td>
<td>.7</td>
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<td><strong>Total of</strong></td>
<td><strong>86.3</strong></td>
<td><strong>85.6</strong></td>
<td><strong>83.1</strong></td>
<td><strong>79.0</strong></td>
<td><strong>80.6</strong></td>
<td><strong>79.2</strong></td>
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</table>


It is easy to be misled in interpreting the balance of payments by taking too much notice of the things that appear on the surface and too little notice of the more subtle points to be found below the surface. This is very true in regard to Australia where frequently a favorable balance of trade is not followed by a favorable balance of payments on current account. The invisible items in the balance of payments are extremely important in an analysis of the Australian balance of
payments. During the years from 1928/29 to 1955/56 Australia ran a favorable balance of trade on its current account for 24 of the 27 years but for only nine of these 27 years did Australia have a favorable balance of payments on its current account.¹⁴ (see Table 5).

The post World War II period saw rapid changes take place in Australia's internal and external economic sectors. This period, the fourth era in Australia's development, was one of accelerated expansion but the development has not proceeded at a steady rate. This has caused great difficulties and disruption in the Australian development plans.

The course of overseas payments is of vital importance to Australian economic life; averaged over the postwar period imports have provided almost one-fifth of the goods and services available for use in Australia.¹⁵ The level of export earnings influences income and sets the tempo of economic activity throughout the community; the flow of overseas capital is an important supplement to local


¹⁵ Year Book of the Commonwealth of Australia, #41, 1955, Part III, Trade Transportation and Communications, p. 221.
<table>
<thead>
<tr>
<th></th>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>1.</td>
<td>Exports f.o.b.</td>
<td>148.2</td>
<td>141.3</td>
<td>122.1</td>
<td>151.5</td>
<td>150.0</td>
<td>264.7</td>
<td>396.9</td>
<td>521.7</td>
<td>593.1</td>
<td>975.3</td>
<td>664.7</td>
<td>846.2</td>
<td>811.7</td>
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<tr>
<td>2.</td>
<td>Gold Production</td>
<td>11.3</td>
<td>12.8</td>
<td>14.6</td>
<td>17.5</td>
<td>6.8</td>
<td>9.2</td>
<td>9.1</td>
<td>9.0</td>
<td>11.6</td>
<td>13.2</td>
<td>14.2</td>
<td>16.4 a</td>
<td>16.8 b</td>
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<td>Transportation</td>
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<td>18.3</td>
<td>24.6</td>
<td>28.0</td>
<td>30.4</td>
<td>33.5</td>
<td>48.4</td>
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<td>Foreign Travel</td>
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<td>2.0</td>
<td>1.1</td>
<td>0.6</td>
<td>1.5</td>
<td>2.1</td>
<td>4.1</td>
<td>3.4</td>
<td>3.4</td>
<td>4.3</td>
<td>2.5</td>
<td>3.4</td>
</tr>
<tr>
<td>5.</td>
<td>Income from Investments</td>
<td>3.6</td>
<td>3.8</td>
<td>3.8</td>
<td>3.8</td>
<td>3.9</td>
<td>4.3</td>
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<td>3.8</td>
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<td><strong>TOTAL DEBITS</strong></td>
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**TABLE 5.**

THE AUSTRALIAN BALANCE OF PAYMENTS, 1936-37 to 1939-40 and 1946-47 to 1954-55

(continued)

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<td>INCREASE IN ASSETS</td>
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<td>19. New Zealand and Domicile in Aust. Public Auth., Debt</td>
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<td>-0.2</td>
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<td>-0.1</td>
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<td>21. Direct Investment Overseas</td>
<td>(b)</td>
<td>(b)</td>
<td>(b)</td>
<td>(b)</td>
<td>(b)</td>
<td>(b)</td>
<td>1.4</td>
<td>0.8</td>
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<td>1.7</td>
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<td>(b)</td>
<td>(b)</td>
<td>(b)</td>
<td>(b)</td>
<td>(b)</td>
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<td>-0.3</td>
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<td>24. Investment in Joint Ry., etc.</td>
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<td>6.1</td>
<td>10.8</td>
<td>19.1</td>
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<td>-11.6</td>
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<td>25. Subscriptions to IMF &amp; IBRD</td>
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</tr>
<tr>
<td>26. Other Government Transactions</td>
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<td>27. Commonwealth &amp; State Bank Balances held Overseas</td>
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<td>with Trading Banks</td>
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<td>-0.2</td>
<td>-0.3</td>
<td>0.1</td>
<td>-0.8</td>
<td>-0.0</td>
<td>-0.2</td>
<td>0.0</td>
<td>0.5</td>
<td>0.3</td>
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<td>28. Monetary Gold Holdings</td>
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<td>0.4</td>
<td>2.0</td>
<td>8.0</td>
<td>9.6</td>
<td>-2.9</td>
<td>-0.1</td>
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<td>-0.2</td>
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<td>-33.0</td>
<td>14.0</td>
<td>-0.9</td>
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<td>77.7</td>
<td>178.3</td>
<td>185.9</td>
<td>188.3</td>
<td>-470.5</td>
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<td>30. TOTAL INCREASE IN ASSETS</td>
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<td>-9.7</td>
<td>-23.0</td>
<td>17.6</td>
<td>13.5</td>
<td>-12.1</td>
<td>161.9</td>
<td>192.1</td>
<td>209.9</td>
<td>182.9</td>
<td>-491.0</td>
<td>187.3</td>
<td>14.5</td>
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</table>

| INCREASE IN LIABILITIES | | | | | | | | | | | | | |
| 31. Public Authority Debt | -1.7 | -2.3 | 2.6 | -2.9 | -45.0 | -5.9 | -9.1 | -13.3 | -30.0 | -20.6 | -2.3 | -2.5 | -10.1 | -1.1 |
| 32. Marketable Aust. Securities held in London by the Comm. Bank (Increase (i)) | | | | | | | | | | | | | 8.5 |
| 33. Disc. & Cash Bal. on Conversion of Public Debt | -0.2 | -1.1 | -0.2 | -0.4 | -0.5 | -0.2 | | 0.3 | -0.1 | -0.1 | | | |
| 34. Aust. Currency Holdings of Foreign Banks & Govts. | -2.4 | 1.3 | -0.1 | 2.8 | 46.6 | -4.0 | -35.7 | -7.4 | -0.5 | | | | |
| 35. Joint Ry Investments, etc., in Aust. | 2.7 | 0.9 | 8.6 | 31.5 | 0.1 | -9.8 | -31.8 | -2.2 | -0.5 | | | | |
| 36. Dollars rec. from IMF & IBRD | 8.9 | 4.0 | 24.9 | 31.3 | 9.8 | 12.0 | | | | | | | |
| 37. Other transactions with IMF & IBRD | 70.5 | 31.0 | | | | | | | | | | | |
| 38. Direct Investment in Aust. | 3.5 | 3.5 | 4.1 | 5.4 | 4.9 | 9.3 | 33.9 | 35.9 | 71.3 | 63.2 | 70.9 | 21.5 | 61.5 | 81.4 |
| 39. Portfolio Investments in Aust. | (b) | (b) | (b) | (b) | (b) | (b) | 2.7 | 1.8 | 1.9 | 5.0 | 3.6 | 2.9 | 1.4 | 7.0 |
| 40. Balancing Item | 21.3 | 9.2 | -7.1 | 40.5 | 8.3 | 37.6 | 81.9 | 103.6 | 125.0 | 44.0 | 65.0 | -47.6 | -30.9 | 34.8 |
| 41. TOTAL INCREASE IN LIABILITIES | 22.9 | 13.9 | -0.4 | 42.8 | -31.9 | 36.2 | 158.3 | 160.8 | 254.6 | 81.8 | 94.6 | -3.7 | 32.1 | 121.3 |
| 42. NET INCREASE IN ASSETS | 10.3 | -13.6 | -22.6 | -25.2 | 45.4 | 45.3 | 3.6 | 31.3 | -44.9 | 101.1 | -585.6 | 191.0 | -17.6 | -258.4 |


(a) Includes gold sold on the premium market valued at the price obtained.
(b) Not available.
(c) Excluding movements due to revaluation of holdings following a devaluation of the Australian pound in September, 1949, and to the adjustments of an accounting nature during 1951-52 which were not due to balance of payments transactions.
resources in the rapid development of the country; a substantial balance of foreign currency reserves is necessary to smooth out the essentially seasonal flow of payments for imports and export receipts and to give latitude to cover the climatic vagaries of primary production and fluctuations in world commodity prices.

Since World War II the course of Australia's overseas payments has fallen into three distinct phases. In the first, which extended to mid-1950, overseas reserves grew from year to year. After wartime controls and international allocation schemes came to an end, the prices of most basic commodities rose and demand continued to expand, and Australian export returns rose in step. Imports also grew steadily as peacetime production was restored, but the dislocation of industry in the United Kingdom and in Europe continued to limit the volume of goods available. Dollar shortages enforced a strict rationing of imports from the United States and related "hard currency" areas. For other imports it was possible to relax quantitative restrictions progressively except for those with "dollar content". Scarcity of supplies overseas was a sufficient curb on the volume of imports. In the earlier part of this period settlements of inter-governmental wartime accounts distorted the balance of payments, which was also affected by substantial contributions to international relief organizations and donations to the United
Kingdom. Although the year to year variations were appreciable, over the first five years after the war current transactions of trade and other payments broke about even. During this period, however, Australia's international reserves rose steadily by £410 million to £630 million,\(^{16}\) chiefly because of a mounting inflow of private capital which more than offset repayments of maturing overseas debt.

The second phase of Australia's postwar foreign trade and payments was dominated by the Korean War boom in 1951 and its aftermath in the decline of commodity prices during the succeeding two years. The demand which sent wool prices soaring in 1950 expanded export income by 65 per cent to £975 million in 1950/51,\(^{17}\) while wool receipts more than doubled. No other export commodity apart from metals experienced any marked quickening of the steady increase in prices which has been going on since the war. Virtually all the adjustments of incomes and prices, as well as the widening targets of national development which took place at this stage, were based on the phenomenal rise of wool prices and the accompanying surge of confidence.

\(^{16}\)The Australian Balance of Payments, 1928/29 to 1951/52, #3, p. 89.

\(^{17}\)Overseas Economic Survey, Australia, p. 23.
In the following year wool prices receded rapidly, so that wool export returns were about four per cent larger than two years previously, in 1949/50. Export income was nevertheless supported by larger returns from other commodities. The balance of payments in 1951/52 was affected most drastically by the sudden influx of imports, which amounted to £1,051 million, 42 per cent more than in the previous year and over five times the value of imports in the first postwar year. In that period of seven years prices about doubled. Such a large volume of imports was a consequence of both heavy demand based on the previous year's export receipts, and the sudden availability of many categories of goods previously in short supply.

The rapid drain on international reserves which these changes caused, supplemented by the increased cost of freight and insurance on imports, was only partly offset by the capital inflow of that and the previous year. To stem this seemingly endless tide of imports the Commonwealth government reimposed import licensing on goods from all sources and cut sharply the quotas for most categories of goods, with particular severity on fully manufactured

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consumer goods. Because of the rather unexpected fulfillment of orders considerable stocks of imported goods had been built up, and their disposal, as well as a revised level of demand based on the lower export receipts of 1952/53, eased the strain on imports. Even though imports were halved in 1952/53, shortages did not appear to any extent. Export receipts revived in that year with a higher level of wool prices and larger shipments of other commodities at steadily rising prices. Even with a small net outflow of capital funds, the balance of current payments showed a sufficiently large credit balance to restore a considerable portion of the previous year's run off in international reserves.

The third phase of the postwar balance of payments opened in the middle of 1953 in near balance. The satisfactorily high export income, combined with the more restrained level of demand, permitted successive easing of import quotas. Yet in retrospect at least it is evident that the situation began to deteriorate from that stage, at first imperceptibly but with increasing rapidity over 1954/55. Wool prices eased slightly in 1953/54 but the effect was concealed by larger shipments. Wheat prices also started to recede and sales fell off, and markets for other primary products became more difficult. Imports expanded only moderately though. The net balance of capital movements was negligible after the repatriation of
overseas funds recorded in the previous year. On balance, for 1953/54 international reserves rose slightly, in spite of the neutral contribution on capital account.  

During 1954/55 the trade trends of the previous year became clearer and continued strongly during 1955/56. Wool prices declined sharply until between July and December 1955 average auction prices were 29 per cent lower than in 1952/53 and lower even than in 1949/50 prior to the boom. Markets for most other primary commodities were affected by the ending of government trading in the United Kingdom and the considerable expansion of rural production in most European countries, but shipments were well maintained, even though prices may have been slightly lower than formerly.  

The chief threat to the balance of payments came from the rapid resurgence of import demand over the whole range of imported goods. In 1954/55 the value of imports was the second highest on record, and as a consequence the outgo on transport and insurance also rose. A formidable deficit of £256 million on current account was partly relieved by an unexpectedly large capital inflow.

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\(^{20}\) Ibid., p. 13/15.

In the year 1955/56 the strength of demand continued unabated and imports continued at an even stronger rate, which resulted in successively severe reductions in quotas in April and October of 1955. In the second half of the year imports were much reduced. The Prime Minister announced new import cuts in September which were to be effective by June 1956. It was hoped by this move the payments for imports would as a consequence be running at a reduced rate about in balance with export earnings.

The government hoped to cut the import intake to an annual rate of Lr 640 million to be effective in 1956/57, compared with Lr 846 million annually received in 1954/55. As long as domestic economic activity remained at the current high rate this was a drastic curtailment of imports. It caused concern that it would create scarcities in many lines when present stocks were exhausted. This could slow down the development plans for Australia and slow down industrial activity.

Import restrictions were relaxed on January 1957 and this went a long way toward canceling the effect of the import cuts introduced as of July 1, 1956. On April 1, 1957 the Prime Minister announced the decision to permit additional imports to the value of Lr 775 million a year beginning July 1, 1957. This was done to prevent any slowdown in economic activity.
The Nature of Australia's Balance of Payments Troubles

Although the government has emphasized the need to expand exports, and various trade promotion schemes have been explored and existing facilities expanded, the main weight of achieving balance in overseas payments rests, as far as can be foreseen at present, on stringent import restrictions. Export promotion by Australia can do little to increase world prices for wool and wheat, although it may be successful in developing marginal markets for these and other primary commodities. Even with extended credit facilities, it would be unrealistic to expect a significant increase in exports of industrial products while Australia's costs remain so high and particularly while domestic demand is concentrated on domestic production by the curtailment of imported supplies.

The remedies for Australia's balance of payments problems must be sought in an examination of their causes. The most striking features in the deterioration of the trade position are the greatly increased reliance on imports and the weakening of the terms of trade. After allowing for higher prices, as measured by the import price index compiled by the Commonwealth Bank, imports in 1954/55 were almost twice the volume of 1938/39, and except for the sharp
curtailment of 1952/53, have been over 60 per cent higher than the prewar volume since 1950. 22

This enhanced rate of importing has been sustained until recently by a marked improvement in the terms of trade which Australia has enjoyed. Until 1953/54 the level of export prices rose higher than the level of import prices, and consequently a larger volume of imports could be financed by a given volume of exports. In 1954/55 this ratio was reduced significantly, so that the purchasing power of a given volume of exports was only 14 per cent more than in 1938/39, compared with 27 per cent above that base in the two previous years and 84 per cent above the boom year. The fall in wool prices in the 1955/56 season brought the terms of trade back virtually to the prewar relation. 23

The plain fact is that the general level of economic activity in Australia, in standards of consumption and volume of capital investment, has been adjusted to the rate of export earnings and the terms of trade ruling between 1949 and 1954. Since then the terms of trade have deteriorated sharply, as evidenced by the lower export


23 Ibid., p. 8.
prices of almost all commodities except metals and meat, but the volume of imports has continued to mount.

Import restrictions offer an immediate safeguard to international solvency, but they treat only the symptoms, and without more fundamental remedies serve only to accentuate the pressures of demand. By one fashion or another the demand for imports must be curtailed to the vicinity of the limit of £640 million set by the government.

While the prosperity of local industry is sustained by strong demand it is difficult to explain convincingly that world prices for Australian exports have declined by 20 per cent since June, 1954. Yet, even if export prices were still as high as in 1952/53, the current balance of overseas payments on current account would be in deficit to the extent of £175 million.

It would be foolishly optimistic to rely under the circumstances on a continuing inflow of capital to cover a drain at this rate. Overseas capital will still be attracted to appropriate investment opportunities in Australia, but past history in 1893 and 1930 at least

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25 Ibid., p. 5.
has shown the consequences of basing imports and local activity on a continuing flow of overseas capital.

Public discussions of the methods of adjusting Australian demand both to the level of export earnings and to the available domestic resources of manpower and materials will no doubt be more extensive in the future as these problems become more acute. What proportion of the adjustment will fall on current consumption or on capital development or will be supplied by increased productivity from local industries will depend in a large measure on the wisdom of government policies yet to be determined and the good sense and industry of the Australian community.

To prevent the situation from becoming chronic, and to avoid further recourse to restrictive trade measures, ways and means of achieving and maintaining higher export income have received considerable attention. The recently established Ministry of Trade was created to foster a full scale attack on the problems involved, and is now instigating a series of trade drives to boost exports and overseas earnings.

In overseas trade Australia has two main concerns which were defined by the Minister of Trade when discussing Australia's position in relation to the General Agreement on Trade and Tariffs.
The first is that our opportunities to sell our great bulk commodities must be preserved subject only to our capacity to quote against competitors' unsubsidized prices...the second is that pastoral and agricultural industries are not adequate themselves to ensure great population growth...(and)...manufacturing industries must continue to develop as a great medium for enabling population to increase. Our position and need in this regard are almost unique in the world. 26

It is often stressed that Australia's high cost structure is detrimental to any marked expansion in industrial exports and that greater concentration on rural production in those avenues for which Australia has natural advantages for competitive trading is the only fundamental solution to increased export income. 27 At the present stage of Australia's development this is true, industrial expansion in the long term could contribute to a permanent improvement in the export-import relationship, not necessarily by way of a greater share of export earnings, but as a factor in reducing Australia's need for imports.

On this point the Bureau of Agricultural Economics has stated that

... in view of the likelihood of an eventual decline in per capita import needs as a result of the

26 The Melbourne Age, January 21, 1956.

27 This idea is supported by Colin Clark in his recent book Australia's Hopes and Fears, 1958.
increased local production of goods now imported, export requirements will increase with population growth, but less than proportionately. This presents the hub of the long-term situation. Increased total exports will be essential to maintain Australia's trade position as population and local demands expand, but the per-capita level may not be as high as it is currently. The current and immediate future situation, however, calls for particular study. The needs of a large immigration program and a rapidly growing population, and the concurrent demands of industrial expansion and national development projects, call for an unusually high level of capital investment, both public and private. The import demands thus generated, tend to outstrip Australia's current capacity to earn export income. Import restrictions are a short-term corrective, slowing down development to the extent that it is governed by imported supplies, and also providing a shelter against import competition behind which certain industries can expand. Other industries of course, are hampered by the reduced supplies of imports available to them. It is in the current and short-term future that the problems are most pressing. The manner in which they are attacked, of course, is largely determined by the assessment of the extent to which a

28Rural Research in CSIRO, #14, September, 1956, p. 23.
substantial and permanent increase in the production and sale of exportable commodities is practicable.

Export earnings in 1954/55 totaled Lr 780 million, of which rural products, including factory processed foodstuffs, brought in Lr 643 million or 83 per cent of the total.\(^29\) This is a natural condition derived from the advantages enjoyed by Australia for the competitive production of wool and major foodstuffs. These are the basis of Australia's export trade and any significant expansion in export earnings depends upon their continued and increased availability for export.

Larger demand domestically from a growing population could easily reduce exportable production unless vigorous action is pursued to raise rural output. The Bureau of Agricultural Economics has estimated that a rate of expansion of two per cent annually needs to be maintained to reach an output sufficient to, provide for domestic market requirements and increased export earning capacity if, as seems likely, a total population of 14,000,000 is achieved in 1976.\(^30\) Present indications are that Australia is on the

\(^29\)Bank of New South Wales Review, #27, September, 1956, p. 11.

\(^30\)The Primary Industries, Bureau of Agricultural Economics, Department of Commerce and Agriculture, May, 1956, p. 26.
verge of remarkable progress, if it has not already entered a new era in rural production. The rapid expansion in pasture improvement coupled with greater efficiency is raising pastoral and dairying output to new levels while, despite significantly reduced acreages, crop production is generally being well maintained. Good seasons did definitely influence these trends, but that is not by any means the sole factor. Recent drought has cut severely into agricultural output. Ample scope remains for continued improvement and wider application of existing techniques.

Industrial exports, though insignificant as individual items alongside the huge earning capacity of Australia's major rural products, cannot, in total be overlooked. In 1954/55 they earned some £131 million or 17 per cent of total export income. The manner of Australia's industrial growth indicates that in some directions the development of export markets will be necessary to maintain prospective levels of output from currently expanding productive capacity. It is also probably true for some industries that maximum economic operations will only be obtained by producing at levels in excess of local demand. Possible developments of this nature need close study. They could make an important contribution

to the diversification and expansion of Australia's export trade markets. The problem is not simply one of having sufficient commodities to sell. Finding buyers and meeting competition, especially for commodities such as wheat, of which large surplus supplies existed up to the recent drought, is equally important.

The United Kingdom is the major market for Australia's export surplus. Before the war, the United Kingdom purchased 51 per cent of Australia's exports but in 1954/55 this had declined to 37 per cent.32 Although the United Kingdom is still by far the biggest buyer of Australian exports, this lower level has been a characteristic of recent years. As this decline has occurred generally in all of Australia's major exports to the United Kingdom, and not in a particular group, it is clear that Australia has entered a new trading era, necessitating the close study and capture of new markets for her products. It is to the credit of Australia's marketing organizations that a large measure of success has been achieved, particularly in such cases as wheat and flour, wool, and eggs, where total exports are equal to prewar, although purchases by the United Kingdom are down. In all other cases of increased total export there have usually been only small increases in British purchases

32Ibid., p. 91.
leaving a larger share to be sold in other markets. While this change in the relative importance of Australia's traditional market may be regarded by some as a severe loss, there is considerable compensation in the greater diversification of Australia's overseas marketing structure. Small advances in other markets, particularly if soundly achieved and permanently based, could well become important in terms of total export returns. Meanwhile there is no real evidence that Australia has, in fact, had to surrender any significant part of its total share in the United Kingdom market.

France, Italy, Germany, and Belgium are among the first six of Australia's customers after the United Kingdom. France, the second largest customer in 1954/55, purchased 8.3 per cent of Australia's exports, Italy 4.6 per cent, Germany 4.1 per cent, and Belgium 4 per cent. These countries were also among Australia's leading buyers before the war and there has been little change in their relative positions. It is interesting, however, to note how wool predominated in the purchases of this group. Wool purchases in 1954/55 made up 78 per cent of French imports, 90 per cent of Italian imports, 72 per cent of Germany's imports, and 82 per cent of Belgium's imports.\footnote{Trends, March, 1956, p. 14.} Small quantities of other primary products,
largely wheat and metals, make up most of the balance. Although high freight rates and the relative inaccessibility of some prewar markets under postwar political and economic conditions have created difficulties, in total some ground has been gained in European markets. In 1954/55 25 per cent of Australia's total exports were shipped to Europe compared to 19 per cent prewar. Although recorded purchases by the U.S.S.R. fell from £26 million in 1953/54 to £154,000, this has not affected the situation to any extent as the U.S.S.R. was an extremely small buyer in prewar years. 34

Before the war, the United States was Australia's second largest customer, but had dropped back to fourth position in 1954/55. Canada and United States imports from Australia represented 8 per cent of Australia's export total in 1954/55, compared with 12 per cent prewar, indicating considerable loss of outlets for Australia's exports in this region. The American region is of particular significance because of the vital importance in recent years of American equipment for Australian development. This has been coupled with a persistent dollar shortage imposing problems of financing the purchase of the necessary equipment. Even the achievement of

34Ibid., p. 15. This decline in exports to the U.S.S.R. was a result of the Petrov affair.
surplus balances from the trading with other regions has not overcome the situation because most of those regions, in turn, have similar hard currency problems.\textsuperscript{35}

To some extent Australia's dollar problem has been eased by dollar loans from the International Bank and capital investments by the United States. Otherwise the situation could have seriously retarded development in Australia.

Due to the nature of the market in the United States, it is extremely difficult to expand unless tariffs and other barriers to trade are eased considerably. This is unlikely in the near future though constant negotiations both direct and through international trade bodies is maintained.

In total, markets treated above show considerable decline on a prewar basis from an average of 82 per cent in the three years ended 1938/39 to 70 per cent of Australia's total exports in 1954/55. Obviously considerable market development has occurred in Australian export trade with Eastern countries, rising from 10 per cent of total exports prewar to 18 per cent in 1954/55. This group includes such big customers as Japan, currently the third biggest purchaser, taking 7.5 per cent by value of Australia's exports. Here

\textsuperscript{35}Ibid., p. 13.
again the biggest purchase is wool, accounting for 80 per cent of Japanese imports from Australia. Wool does not predominate in Australian trade with the less industrialized Eastern countries where the preponderance of buying is devoted to foodstuffs, mainly flour and wheat. It is apparent that there is further scope for expansion in these markets provided quality and price are maintained at competitive levels. 36

Markets in India, Ceylon, Singapore, and Malaya are also of growing significance for industrial products. Predominant interests in this direction are for metals and machine products. In view of the ready accessibility of these markets and the nature of Australia's main markets, it is in Australia's neighboring countries that trade in industrial products is most likely to expand.

New Zealand is an exceptional market in the sense that it is a big purchaser of many secondary industry products, and it is Australia's only major market in which the value of Australia's exports of these products exceeds that of rural products. Australia sells some five per cent of her exports to New Zealand, which is currently Australia's fifth largest customer.

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36 Ibid., p. 10.
The general picture which emerges is that a considerable shift in the direction of Australian trade had taken place. Consolidation of the new markets which have been developed requires every consideration, as any loss of these would strike a serious blow to Australia's economy. It is in the growing markets in the east, where, in terms of distance, Australia has an advantage over most other exporters, that possibly the greatest scope lies for many products other than wool. At the same time, the search for new markets cannot be relaxed. As has so often been stressed in the past, Australia's ability to export is not so much determined by productive potential, which is considerable, as by the extent to which production can be undertaken on a basis which is both profitable and competitive.

With buyers' market conditions almost universal, particular significance is attached to the endeavors to codify the desirable trade practices which all countries should observe. Thus the General Agreement on Trade and Tariffs and the former International Trade Organization are matters of special interest to Australia. With American farm surpluses a constant threat to orderly marketing, it is not surprising that doubts are expressed in some quarters as to the future of Australian export trade. While such doubts cannot be dismissed out of hand, it is encouraging to find in the recent creation of the Ministry of Trade, the streamlining of Australian machinery
for an integrated attack on the problems of Australia's external trade.

Factors Influencing Australia's Balance of Payments

Australia's present balance of payments problems are usually studied in a short-term perspective. Estimates are made of the expected movement in exchange reserves from year to year and month to month by studying movements in export prices, evaluating the effects of import restrictions and guessing at capital imports. Such short-term analysis is of course necessary in order to follow developments closely and to settle the policy issues from month to month.

When analyzing the factors which are influencing and determining the present balance of payments situation, however, longer term perspectives also become necessary. It is important, not least for policy purposes, to know to what extent the balance of payments deficit during the past few years is due to accidental and temporary disturbances and to what extent it has its origin in more fundamental factors giving rise to long-term discrepancies.

There are several short-term or more or less accidental factors which could be contributing to the present balance of payments disequilibrium. First there are the low terms of trade. Sharply fluctuating export prices in relation to import prices have
caused large and frequent disturbances in Australia's balance of payments in the past and, since 1953/54, the terms of trade have fallen about 20 per cent. The terms of trade at the end of 1955 were about four per cent higher than in the second half of the 1930's and only 10 per cent lower than in the second half of the 1920's. The latter period is usually considered to have been a favorable period for primary producing countries. Looking to the future it would seem that the terms of trade are at least as likely to fall further in the coming years as they are to rise.37

Second, there is the low volume of exports. The volume of exports changed very little from 1930 to 1950 but has risen something like 25 per cent since 1950/51. This is due largely to a succession of remarkably good seasons, the elimination of rabbits, and a heavy investment in rural industries, though the recent drought has changed this somewhat. With the high level of expenditures on long-term rural projects--particularly pasture improvement, erosion control and water conservation--the volume of exports

can be expected to increase, but it seems unlikely that the recent rate of expansion will be maintained. 38

A third short-term factor which could be affecting the current balance of payments position is the unusually low rate of capital inflow. The variations from year to year have been great. However, new capital inflow has averaged about Lr 75 million a year over the postwar period, and this rate is being fairly well maintained. While it could change quickly, there seems little reason at present for considering it to be abnormally low. 39

Lastly, there is the high volume of imports. The current volume of imports can be regarded as relatively high from two short-term points of view. The restrictions introduced in October 1955 did not affect actual imports. For example, the annual rate of imports of Lr 825 million in the first half of 1955/56 corresponds to an estimated rate of Lr 650 million when the present restrictions are fully effective. However, this concept of the level of imports under effective regulations is not of great interest for a long-term analysis when, in order to measure the extent of external disequilibrium,

38 The Australian Balance of Payments 1928-29 to 1955-56, p. 17.

Australia has to try to decide how high imports would be without physical controls. The other condition which suggests that the current volume of imports is relatively large is the high level of expenditures within the Australian economy. The inflationary boom with excessive demand for goods and labor that has developed in the past few years may be regarded as a short-term factor explaining some abnormal or extra needs for imported goods.

There is no basis for judging the order or size of this extra demand for imports caused by internal inflation. The marginal propensity to import cannot very well be ascertained during the postwar period when no two years have been free from serious disturbances. Until 1951 the supply of imported goods was inelastic and there was a simultaneous restocking boom. Since then, years with heavy import restrictions have altered with years in which new import controls have been anticipated.

It is suggested, then, that of the short-term factors which could be affecting the current balance of payments situation the terms of trade, the volume of exports, and the rate of capital inflow are all more or less normal. The demand for imports, however, is relatively high which is due mainly to the spilling over of excess demand.

Consideration should be given to the question whether the degree of inflation that Australia has had in the past few years is not
rather "normal" in terms of postwar experience and what can be expected in the future. But whatever the opinion as to the frequency of future years of inflation, it is necessary for purposes of analysis to try to isolate the short-term inflation factor and to decide how large the volume of imports (and exports) and the deficit in the balance of payments on current account would be without inflationary pressure in the economy.

The first and most difficult problem in trying to determine whether there is a fundamental disequilibrium in the balance of payments on current account and if so, how large, is to decide what is the "normal" level of imports. To know this it would be necessary to determine what the level of imports would be without import restrictions. Other factors to be considered are whether the domestic economy is in reasonable balance and if there are any abnormal inventory changes taking place.

Unfortunately, all of these conditions have not existed in any postwar year. Prior to 1950/51 imports were restricted by the difficulty of securing supplies, particularly in the United Kingdom, and by shortages of shipping. Imports from the dollar area were subject to direct controls. Although there was some inflationary pressures, and inventories were being built up, it seems fairly certain that imports in these years were below what might be considered a "normal" level.
In 1950/51 and 1951/52 there was a rapid inflation in Australia, with retail and wholesale prices and average earnings rising between 40 and 50 per cent in the two years. At the same time accumulated import orders were being filled and inventories were being built up. These factors all suggest that imports were above normal, particularly in 1951/52. In 1952/53 all of the above factors were working to reduce imports. General import licensing had been introduced in March, 1952. At that time there was some deflationary pressure and inventories were depleted. Imports in 1952/53 must have been below normal. The sharp fall in imports and the resulting surplus on current account in the balance of payments made possible progressive relaxation of import restrictions. In 1953/54 the domestic economy was in reasonable balance, although in the latter part of the year there were signs of re-emerging inflationary pressures, and externally Australia was enjoying unusually favorable terms of trade. A relative stability of prices and wages promoted a high level of employment.

With the economy in reasonable balance in 1953/54, there was little change in the volume of inventories. However, the third condition of "normalcy" in relation to imports--no quantitative restrictions--was absent. Although import restrictions were much less severe than in 1952/53, it was clear that they were still effective in keeping imports
below the normal level. The extent of restraint, however, is impossi-
ble to estimate.

Normal import requirements must have increased since
1953/54, with rising production, population, and incomes. Any
estimate of the rate of increase must be hazardous, but real gross
national product and real national income are probably increasing by
about five per cent a year. In the past import demand has increased
at about the same rate as real product and income, and it seems
probable that this parallel growth has continued in recent years.40

If the assumption that there are no important short-term or
cyclical factors affecting the balance of payments is correct, then
this measure of external disequilibrium must be interpreted as being
of a long-run or structural nature. The strong long-term tendency for
imports to rise more or less parallel with national income while
exports increase at a significantly slower rate gives the background
perspective to the present balance of payments disequilibrium. From
this point of view the disequilibrium seems to be fundamental.41

40 W. E. G. Slater, The Measurement of Australian
Industrial Production, p. 19.

Comparison of the 1930's with the Postwar Period

The marked differences between the 1930's and the postwar period seem to give a good opening for the analysis of these periods. When comparing these periods differences in the following factors are of special significance, namely, the price-cost developments in Australia compared with competing countries; the level of employment; the rate of growth of the economy with special reference to immigration; and the structural changes within the Australian economy that are partly dependent but to a larger extent independent of the other factors.

In comparison with the last few years the general cost conditions for stimulating import replacements were very favorable in the 1930's. At the same time as nominal wages declined by about 20 per cent from 1928/29 to 1932/33 the devaluation (plus increases in tariffs) implied rather stable or rising prices of imported finished goods. These favorable relations—with only slowly rising wages—were preserved up to 1936/37. In the next two years a 10 per cent rise of wages may have tended to destroy some part of Australia's cost advantage. 42

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The stimulus towards import replacement and export expansion that the price-cost relations implied worked upon an economy with a high degree of unemployment. There was an ample supply of factors of production creating relatively high elasticities of supply and demand. Under these extremely favorable general conditions for a change in the structure of the economy, the shift towards import replacement resulted in a 20 per cent fall in imports relative to GNP. This means that if these structural changes in production and consumption had not occurred and average import propensities had remained more or less stable, than the total value of imports at the end of the 1930's would have been about 25 per cent larger. This downward shift in the demand curve for imports—which did not involve import restrictions—applied particularly to elaborately transformed goods which fell from 13 per cent of GNP to less than 10 per cent. If average import propensities had not changed, imports of these goods at the end of the 1930's would have been one third larger.\footnote{\textit{Ibid.}, p. 231.}

The relative cost conditions of the Australian economy were also favorable during the first years after World War II. From the end of the 1930's up to 1946/47, wage rates in the United Kingdom had risen by about two thirds as against one third in Australia. But full
employment, inflationary pressures, and backlog-import needs apparently prevented these conditions from having any effect. During the subsequent years the Australian inflation not only eliminated this favorable cost position but reversed it. The Australian wage level in 1954/55 seems to have been about three and one third times the level of 1936/37--1938/39 while the corresponding figure for the United Kingdom was about two and a half times as large. There is no indication that this unfavorable cost development for Australia is compensated for by other factors such as a more rapid increase in productivity or a lower rise of other costs. 44

The conclusion that may be drawn from this comparison is that the two main factors which seem to have been responsible for the import replacement development during the 1930's--favorable cost conditions and unemployment--have ceased to operate. It may even be said that prevailing cost relations and full employment conditions in themselves tend to raise the average import propensity above the level of the 1930's, although it is impossible to estimate by how much.

During the 1930's the Australian economy showed signs of serious stagnation with probably no, or a very low, average rate of growth from the end of the 1920's. After the war real GNP may have

44 *Overseas Economic Surveys: Australia*, p. 132-34.
expanded by nearly five per cent per year. Various rates of expansion of total production and expenditure in real terms—determined by different rates of increase of population and productivity—need not in themselves much influence the propensity to import. But it is likely that with the Australian economy expanding at a rapid rate the average volume of exports in relation to real GNP will continue to fall. It appears that the increase in the work force (achieved largely by means of a positive immigration policy) that is associated with Australia's rapid economic expansion, will be completely absorbed in secondary and tertiary industries which might even continue to take workers from primary industries.

An important factor influencing import demand seems to be the rise in the ratio of gross investment to GNP that tends to follow from a higher rate of economic expansion. If—as seems to be the case—the average demand for imports per unit of investment expenditure is higher than the corresponding import propensity for consumption expenditure, then the kind of change in the structure of national expenditure since the 1930's—which has increased the gross investment ratio from 20 to 25 per cent—should be a factor tending to push up the demand curve for imports. 45

The continuing high investment, especially in secondary industries, during the postwar years has without doubt resulted in considerable import replacement, and this has been strongly encouraged by import restrictions. This development has so far not resulted in any actual decline of import demand (potential imports) along lines of the import replacement trends during the 1930's because of other counter-balancing factors, such as full employment, a high investment ratio, and a rapid expansion of demand. The effects on actual imports would probably appear if (and when) the continuing investment in new import-replacing projects stopped and the gross investment ratio fell back to the level of the 1930's, and unemployment returned to the same degree. This conclusion cannot be given any quantitative precision and certainly does not suggest any policy recommendations.

An analysis of some of the current issues bearing on the balance of payments might be of some help in reaching a conclusion. These issues involve immigration, savings and capital imports, and import regulations.

The high rate of immigration is an important cause of the large investment needs of Australia and therefore indirectly of the high import demand, especially for capital goods. A cut in
immigration would therefore help to solve the balance of payments problem. This is—as far as can be seen—a dubious recommendation. There is no simple mechanical relations between immigration, and the need for new capital in the form of houses, stocks, machines, and so on, and imports.

It is not certain that a lower rate of increase in population would be followed by a fall in the investment ratio. Instead of the needs of a growing population there are the growing needs of a more or less stationary population with expanding income and expenditure as determined by the current rise in productivity. As investment activity, which implies more capital per worker, tends to contain relatively more machinery and similar items that the investment in public works, public utilities, and houses for a growing population, a restrictive immigration policy might well lead to a rise in the average import propensity.

46 This view was expressed forcibly by the Institute of Public Affairs, Victoria, in its Review for October–December, 1955. It said: "The migrant sets up immediately a demand for capital which has been variously estimated at from Lr 2,000 to Lr 3,000 per head. Taking the lower figure it can be shown that the additional imports—that is over and above what they would otherwise be—necessitated by the present migrant intake of 100,000 a year would average out over a 10 year period at something like Lr 87 million a year....If population increase continues at a rate approaching a quarter of a million people a year, and an investment programme on the scale needed to absorb such an increase is maintained, the balance of payments problem must become progressively more acute."
However, the rate of development of the economy is determined largely by the level of exports, which have tended to decline relatively to national income. This decline tends to become more rapid when the rate of growth of the economy is accelerated by a rapidly rising population. The fundamental question is whether such a tendency is a necessary consequence of immigration. If a sufficiently large proportion of the additional supply of labor and capital (from new savings) went to export production--primary and secondary--than there should not be the kind of discrepancy between the trend of exports and imports as observed above. This whole problem of the structure of the Australian economy and the allocation of factors of production is of course a vital issue of economic policy.

The other strategic supply factor determining the development of the Australian economy is the level of savings. There are reasons for regarding the supply of savings as especially scarce in Australia because of the high investment demand for public utilities and housing that arises from the population growth.

This raises the question of the possibilities of supplementing the supply of savings by more imports. Capital inflow was relatively much more important during the 1920's--when it amounted to about one third of the f.o.b. value of imports--than during the last five year
period, when it covered less than 10 per cent of imports. The issue of capital imports is, however, a complex one. In the 1920's the net capital inflow probably did not do more than cover interest and dividend payments on the existing foreign indebtedness, which was mainly of a fixed interest nature. The country was thrown into great financial difficulties when borrowing became impossible at the end of the 1920's and the service of the debt became an almost intolerable burden. Against the background of the dangers with fixed indebtedness, the direct investment and equity borrowing that has been predominant during the postwar period seemed to be a more rational method of getting capital from abroad. However, under the conditions of full employment and inflation during the postwar period new problems have appeared.

An indication of the extent to which equity borrowing has replaced fixed interest borrowing is given by the decline in interest payments and the sharp increase in profits paid or accruing to foreigners. Net interest paid overseas fell from £27 million in 1938/39 to £17 million in 1954/55, while net remittances of dividends and

profits increased from Lr 9 million to Lr 32 million and net undistributed profits accruing to foreigners increased from Lr 4 million to Lr 27 million.\textsuperscript{48}

The high profits in a full employment economy with some inflation and markets sheltered from foreign competition make foreign equity capital relatively costly. So long as the profits remain undistributed and are re-invested in Australian industry the claims will only be potential. But they tend to grow rapidly and may have a disturbing effect in the long run on the foreign exchange position. This form of capital import might therefore prove an expensive and risky way of trying to meet the balance of payments problem.

Import regulations are a necessary method of meeting heavy short-term disturbances in the Australian balance of payments when exchange reserves are inadequate. However, the present discrepancy between export income and potential import demand seems to be relatively large, and appears to be the result of a fundamental disequilibrium between the long-run trends of exports and imports. If this is so, the use of import regulations will not help to remove the disequilibrium, as they will not affect the causes of the excess of imports or the deficiency of exports. There is therefore a great

\textsuperscript{48}ibid., p. 9.
danger that Australia will have to resort to import regulations of a
long-term nature and only accidental wool booms will make the lifting
or extensive easing of the controls possible. Moreover, there is a
risk that any relaxation of import controls will tend to be very short-
lived as there will be an immediate clamor to import as much as
possible before controls are again tightened. There are without doubt
great disadvantages in having very restrictive import regulations over
long periods. A discussion of these disadvantages will be undertaken
in Chapter V.

Summary

There seems to be two main alternative paths out of the
dilemma that the current balance of payments situation presents to
Australia. They are not strictly alternatives--various combinations
of them are without doubt possible.

One alternative involves more central planning and economic
policy co-ordination by the federal government. In order to make
import controls function over a long period and reduce the risk,
various forms of investment controls should be coordinated with the
import regulations. One and five year plans of economic development
for the Australian economy should be drawn up as a basis for the
detailed regulation of imports and investment as well as for the
planning of monetary and fiscal policy. Good arguments could also be
produced for price and monopoly controls. However, constitutional and political difficulties would make any suggestions that Australia should take the road of direct controls look rather naive.

The other alternative is to work through the decentralized, so-called "automatic" forces within the market economy. Under existing conditions of over-full employment nearly everything is profitable. The system of price relationships should instead function in such a way as to restrain as well as to stimulate the various types of economic activity according to the potentialities of the Australian economy. General propensities of this kind are of course easy to formulate and even to agree upon, but more specific conclusions do not flow as easily.

Clearly, the first step is to eliminate the inflationary gap and over-full employment. Only when this has been done will it be possible to judge to what extent the current balance of payments deficit is due to inflation, and to what extent—if at all—it reveals a fundamental disequilibrium.

If the removal of excess demand shows that there is in fact a long-term disequilibrium in the balance of payments—and an analysis seems to suggest that it is highly probable—further action will be necessary. It must be emphasized, however, that measures along the lines of the second alternative would not provide a quick solution to
Australia's balance of payments problems. The main aim would be to influence economic development in a way which would set the economy on the road towards external equilibrium. Unless such measures are taken, the continued reliance on import restrictions to protect international reserves will lead it further in the opposite direction.

Any attempt to work through the price system must take into account the two fundamental scarcities of the Australian economy—of savings and of foreign exchange. When the potential deficiencies of savings gives rise to excess demand for goods and services, the marginal propensity to import becomes high. Although it has been suggested that a reduction in migration might not have a substantial effect in reducing import demands, there is no doubt that it would reduce the pressure from urgent investment needs, and so make it easier to carry out an anti-inflationary policy.

It has been suggested that the potential scarcity of foreign exchange implies that the actual import prices in Australian pounds are too low. A correction of these price relationships could be made by raising tariffs or by increasing indirect taxes on goods with a high import content. Such a policy would make possible higher government saving and would, to this extent, support the general anti-inflationary policy.
An alternative way of raising import prices would be by devaluing the Australian pound. (The large potential deficit in the current balance of payments on the current account can be interpreted as an overvaluation of the Australian pound). In combination with a re-allocation of saving by way of credit policy, this would also support the expansion of export industries. This should not, of course, be taken as a recommendation for economic policy, but rather as one way of correcting price relationships, if there is still a large balance of payments deficit on current account after excess demand has been eliminated.

As was indicated previously the changed price relationships would affect the direction of development only if the elasticities of demand and supply were high enough, as was apparently the case in the 1930's. This was in most cases a sad decade, especially for Australia, and should certainly not be taken as a model for economic policy. This general view should not prevent Australians however, from learning some lessons from the experiences of the time. The changed price relationships between foreign and home goods after 1931 had useful effects under the conditions existing then.

If there is in fact a substantial long-term disequilibrium in the Australian balance of payments on current account, it is clear that measures of the type suggested here would not eliminate quickly the
need for import controls. But the pressure on the restrictions would be reduced and a progressive approach towards equilibrium would permit successive relaxations which would create confidence.

This might be thought a rather modest result from a positive policy aimed at removing the need for protective import restrictions. However, it is doubtful whether there is any easier or quicker way of achieving this objective. And if some of the proposals are found unattractive in themselves, they should be considered as part of a practical alternative to more or less permanent import controls, with all their disadvantages and dangers.
FOREIGN TRADE AND INVESTMENT

Foreign Trade: The Capacity to Import and Economic Development.

The unique nature of the development of Australia's resources and agricultural commodities and a relatively small domestic market for some of these resources and commodities indicate that for some time Australia's economic growth will necessarily be linked with foreign trade. Thus, the first point to consider is the relation between Australia's capacity to import and economic development.

A nation's capacity to import is determined fundamentally by the physical volume of its exports and changes in the terms of trade. The net outflow of interest and dividend payments and the net inflow of investment capital is also important.

One barrier to the economic development of Australia is its inability to import the capital and consumption goods required for development. This is the result of the failure of Australia to increase its capacity to export fast enough to enable the nation to meet the increasing demands for imports. The accelerated development program being undertaken in Australia is one of the basic reasons for an increase in demand for imports. Along with this is the rapid increase in population from both internal and external sources.

The agricultural and pastoral industries are the "senior service" of the Australian economy. Rural products make up over 80 per
cent of Australia's exports, and consequently, the country is almost entirely dependent upon them for the earning of overseas exchange.

Rural production has shown only a slight increase compared with prewar in contrast with the considerable expansion of secondary and tertiary industries. The small gains that have been made in rural production above the prewar level are particularly unimpressive in view of the fact that there has been on the whole, a run of good seasons. 1

This relative static nature of rural production is disturbing because of the urgent need for increase production. The population increase, in the absence of adequate rural expansion must result in a drastic contraction of the volume of exports of agricultural commodities and already this trend is making itself apparent.

In the past the manufacturing industries and the rural industries were often regarded as competing industries. There has been serious competition for laborers, resources, and capital. It is the opinion of John McEwen that the manufacturing industries and the rural industries must "... meet together." 2 Today these industries are

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1 This is the opinion of the Australian Bureau of Agricultural Economics.

2 An address by John McEwen, Deputy Prime Minister, Minister for Trade, to a meeting of industrialists of the Australian Industries Development Association, Sydney, June 9, 1958.
clearly complementary to each other. Australian manufacturers today are the biggest users of foreign exchange. They are dependent upon the land and mining industries to earn the overseas funds with which they import their raw materials and equipment. Thus, the balanced progress of both the secondary and the primary industries is very essential. The continued development of the secondary industries is important to continued national development.

Thus, it is felt by the Australian government that the development policy must be one which will "... press on with the development of Australia whilst maintaining stability and prosperity and planning for a soundly based economy now and in the future." To do this those industries which produce export surpluses must be large and strong so that they can pay for the import requirements essential to continued expansion. "This is the premise on which the Government trade policy rests." The new Department of Trade is taking steps to protect and insure access by Australia to overseas markets and to assist sales by promotions and publicity of Australian products overseas. New policies and aids of various kinds are being undertaken to stimulate the primary industries to increase the exportable surplus

3 Ibid.
4 Ibid.
and to increase output enough to offset the increased demand due to
the increase in population. Also the secondary industries are being
encouraged to increase their output of items for export and to in-
crease output of import-replacing items. "The former idea of 'Hands
off--Let us alone' no longer can exist in Australia any more on the
part of industries... There is no longer such a world." Some
modern national economies are built around government credit, econ-
omic, and trading policies, and central bank operations. On this Mr.
McEwen said...

International trading depends so largely these days upon
government negotiation of access to markets, tariff
protection, import controls and all the ramifications of
government controls in a complex trading world. This
may be regrettable but the facts are there. Mr.
McEwen suggested several things that the manufacturing indus-
tries could do to aid the nation in its time of need. These will be
briefly summarized below. Progress would come with increased in-
vestment in plant and facilities. More attention must be paid to the
problem of technical development. An extensive program for training
experienced management personnel has been set up and more is
needed. There is a very urgent need to give prominence of emphasis

5Ibid.

6Ibid.
to increase productivity and planning. Some results can be seen today in that Australia has some of the most modern manufacturing plants in the world. Foreign firms are putting their most modern developments into new Australian plants. "This is a long way from the early days when we often got the machinery which was being replaced at home."  

There is increasing recognition by Australia's manufacturers of the part that their exports play in their ability to expand. The realization is coming that unless their exports expand the manufacturing industries must be eventually affected. As a result there has become a "... heartening improvement in the manufacturers' own attitude towards exports."  

A fundamental structural change has taken place in the Australian economy since World War II. It has become highly, even intensively, industrialized. Before the war, in spite of substantial manufacturing development, Australia still thought of itself as "... predominately a primary producing country." This is not true now.

7Ibid.

8Melbourne Age, July 17, 1956.

This far-reaching change in the structure of the Australian economy has given "... rise to a dangerous fallacy in our economic thinking." This is the view "... that the expansion of manufacturing has made us less dependent upon imports and has brought Australia a long step toward self-sufficiency."\(^{10}\) The increased dependence of the Australian economy on imports is indicated by the fact that the quantity of imports per head, in spite of import restrictions, is now about 30 per cent greater than before World War II. This has been accompanied by a reduction in Australia's ability to pay for imports.\(^{11}\)

The economic growth and progress of Australia since the end of the war has been of such a nature as to swell demands of the economy for imports without contributing in any material degree to its overall capacity to export. The great expansion of manufacturing has been one of the most striking features of this progress and has itself increased the import requirements of the economy (not merely in absolute quantity for per head of population).

This should not be taken to imply any criticism of the main body of the development in secondary industry since the war. This

\(^{10}\)Ibid.

\(^{11}\)Melbourne Argus, June 11, 1956.
expansion has been in part a response to deliberate government policy
to foster secondary industry and national development, and in part a
response to the very high level of postwar incomes and phenomenal
prosperity in the primary industries in the period right after World
War II. These high incomes have led directly to heavy imports of
consumers' goods and of motor cars, parts and petroleum. But they
have also swollen the demands for the products of Australian second-
ary industries which, in turn, have had to purchase abroad specializ-
ed equipment and materials and component parts which either cannot
be obtained domestically or are made in Australia at excessive costs.

It is clear that the extraordinary postwar growth in second-
ary industry can be sustained only by a continuance of high living
standards, that is, by a high level of incomes and spending power.
But these incomes will swell the demand for imports from overseas
for equipment, materials, and parts for domestic industry as well as
consumer goods. It is true that many things are now produced in
Australia that were not produced there before World War II. Motor
vehicles are an outstanding example. But the production of motor
vehicles, and of many other products, has set up new and heavy de-
mands for imported materials, parts, and productive equipment.

The main bulk of Australian imports consists not of consumer
goods but of materials, parts, and industrial and transport equipment.
for use in domestic industry. Consumer goods over the past few years comprised only around 15 per cent of all imports. Since before World War II these categories show substantial increases.

Many new developments in manufacturing in Australia thus set up additional demands for imports and throw an increased strain on the balance of payments. Moreover this situation is unlikely to alter greatly in the foreseeable future. Australian manufacturing is supported at present by heavy imports. Without these imports it could not operate at its present scale and level of efficiency. Unlike the manufacturing structure of the United States, it is far from being self-contained. In its reliance on imports it bears a much greater similarity to the United Kingdom, which is dependent on the large-scale importation of raw materials without which its industries cannot function. To obtain these essential requirements the United Kingdom must be able to export a high proportion of the finished products of its factories. Australia can still pay for the major part of its import needs by exporting its surpluses of wool, wheat, meat, and other primary products. But the continuance of import controls for several years, in spite of good export returns, strongly suggests that the traditional export of primary products is no longer, by itself, sufficient.

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to pay for Australia's requirements of imports, at its present standard of living and level of employment.

It can only mean that if Australia is eventually to dispense with import restrictions and achieve a more or less permanent equilibrium in its overseas trading it must supplement its traditional exports of primary goods with increased exports of the manufactured goods now being produced by its enlarged industrial structure. At present Australia is exporting manufactured goods to the value of from £40 million to £50 million a year, or about 2 per cent of its total manufacturing output. If Australia is to pay its way in overseas trade, without the aid of import cuts, this figure would have to be raised to something of the order of £200 million a year according to Mr. McEwen. It is not suggested that this objective can be achieved in the near future, but until it, or something like it, is achieved the Department of Trade feels that Australia will in all likelihood be compelled to suffer the continuing inconvenience, indignities, and economic drawbacks of large-scale import restrictions.

This conclusion rests on two important assumptions. First, that income from exports of primary products will continue somewhere around the present levels, about £700 million a year. If anything this assumption may err on the optimistic side. If export

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13 Melbourne Age, August 10, 1956.
income from primary products fails to maintain this level, that would increase the need for exports of manufactured goods. Second, the continuance of Australian standards of living not greatly below the present standards and the maintenance of high employment levels. A reduction in Australian living standards or in employment would of course lower the demand for imports. It would also reduce the demand for the products of domestic manufacturing industries.

It seems clear that Australia can no longer look to its traditional exports of primary products to pay for its imports required to support accepted standards of living and employment and rapid large-scale development. Until Australia has developed a sizeable export market for manufactured goods, the balance of payments problem is almost certain to continue. Australia is today a highly industrialized nation, with the production of secondary industries contributing more to national income than that of the primary industries. Under these conditions, it is hardly realistic to expect to achieve a balance in overseas trade unless a reasonable proportion of its production contributes to export income.

If these conclusions are correct, it follows that the level of costs will in the long run be the decisive factor affecting the balance of payments. For the development of a large export market for Australia's manufacturers depends almost entirely on producing at costs competitive with the rest of the world.
Australia has had a chronic balance of payments problem since early 1952 when quantitative import restrictions were imposed. The weakness in the overseas position may have been apparent even sooner if it had not been for exceptionally good prices for exports, particularly wool and wheat and the large capital inflow stimulated by these prices. In 1953/54 Australia imported in physical terms about 55 per cent more than the average of the three years from 1936/37 to 1938/39. This increase is only partly accounted for by the growth of population. Australia was also importing substantially more per head of population. Per capita imports, in volume, were something like 20 per cent greater in 1953/54 than before the war. Nor does this rise fully reflect the true increase in demands of the Australian economy for imported goods for it has been held in check by restrictions and by exchange controls over goods from dollar sources. In fact, with some easing of import restrictions in 1954/55, imports increased markedly. Estimates suggest that the volume of imports were about 80 per cent above prewar, or 40 per cent per head of population at that time.

14Melbourne Age, December 1, 1956.
15Melbourne Argus, May 1, 1956.
16Department of Trade Press Release, October 1, 1955.
On the other side, the increase in the volume of exports, since before World War II is only around 22 per cent (1953/54 over 1936/37 to 1938/39). Per head of population, exports have declined by 6 per cent. Thus, along with an increased per capita demand for imports averaging about 30 per cent over 1953/54 and 1954/55 has gone a decline in real exports per head of 6 per cent. Moreover the difficulties Australia now is experiencing in paying its way would have been intensified had not the terms of trade moved in its favor. The prices Australia has been getting for its exports have risen by 400 per cent compared with a 280 per cent increase in the prices Australia had to pay for its imports. In other words Australia can now obtain a given quantity of imports for a smaller quantity of exports than before the war.\(^\text{17}\) During 1955/56 import prices rose slightly while export prices fell back from 400 per cent to 360 per cent above prewar.\(^\text{18}\)

The greater per-capita demands for imports are a natural consequence of full employment,\(^\text{19}\) higher average standards of consumption, and a more than normal rate of development in both private

\(^{17}\) The Australian Financial Review, June 8, 1956.


\(^{19}\) In the prewar years unemployment averaged about 9 per cent.
and public projects. But the difficulty of achieving a balance in Australia's overseas accounts arising from these basic causes has been aggravated by the rapid inflation of money incomes and production costs, especially since 1950. It would be fair to say that these reasons, between them, embrace the generally accepted explanation of the postwar balance of payments problem. Though, there are varying views as to the importance to be placed on the different factors.

Australia is currently in an active stage of growth and development that "... while checks and interruptions are possible, indeed likely, they will prove temporary."²⁰ Australia is more likely to be concerned with the problem of finding the resources to carry out development plans than to be concerned with a deficiency of plans to keep the resources and people working. Then comes the problem of how to add to the given supply of resources. One way is to produce more by raising productivity per head which can add to the rate of development. The last decade in Australia has been a period of remarkable population growth, nearly 13 per cent, and very heavy capital investment yet it is unlikely that the average increase per year in GNP (apart from the effect of price increases) over that period

exceeded 4 per cent. Another qualification is the equipment needs of the new arrivals. A larger population was in a sense an alternative to a better supplied population. Setting too high a target rate of growth of population might force acceptance of a slower rate of improvement in the standard of equipment per head. Another suggestion might be in the possibility of greater savings. The recent rapid growth of consumer credit has currently diverted more savings to the purchase of consumer's durable goods. This took resources away from more essential production. A continuance of growth at the same rate as during the period after 1952 could limit significantly the resources for development.

Since the expansion of basic import industries must be a slow process, it was natural that attention should be concentrated on the possibilities of directing development at the replacement of imports by domestic production. The concentration on import replacement which could be justified could contribute greatly to solving the international problems created by the development itself. But the production domestically of goods previously imported was not a net gain, since almost invariably the production itself involves imports of materials, components, and capital goods. Also, it frequently

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21 Melbourne Age, May 6, 1957.
involved payments abroad in the form of interest, or royalties. The net saving in import expenditure might be small. This also could create a pattern of import requirements for industry which would be very inflexible in the event a serious deterioration in the terms of trade took place.

Australia might find itself pressing against the limits set internally by the resources available after consumption demands have been met and externally by the pressure of expenditure on the international resources available for imports. Dr. H. C. Coombs said:

We must expect therefore that our Governments and banking institutions from time to time find it necessary to restrain development so as to preserve reasonable financial stability.22

It is generally recognized that monetary and banking policy can be used to soften some of the adverse effects of development. Monetary and banking policy probably tend to be less effective in the restraint of overspending in Australia than in some other countries. This is due to the fact that Australia's money market is less developed than in some other countries. Also Australians are convinced that interest rates should be kept low.

Australia needs greater production because of its adverse

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22 Australian Financial Review, August 18, 1955. Dr. Coombs is the head of the Commonwealth Bank.
trade balance, necessitating import cuts. But greater production in itself is not enough if it is achieved only at high cost, so that the finished products or commodities are so highly priced that they cannot compete on world markets. Greater production, to be really worthwhile, should be achieved through increased productivity which, incidentally, would also represent a determined assault on inflation.

If the manufacturing industry is to grow to maturity, it will have to be prepared to match, and in some respects, at least, to surpass, the efficiency of competitive manufacturing industries in other countries. This might require a more revolutionary change in the outlook of manufacturers than that of rural producers. Manufacturers in Australia have become accustomed to accept the best technology from abroad as the best possible for Australia. But as Dr. Coombs maintains more may be necessary.

If we are to compete effectively we must be prepared to go beyond that, and, in addition, to drawing on the best that the world has to offer, to add something exclusively Australian to the techniques and productive methods in our manufacturing industries.23

There is also the need for more scientific technology in methods of primary production to aid Australia in its international payments problem without frequent resort to the arbitrary method of import restrictions. Within Australia's traditional export industries

23Melbourne Age, March 28, 1956.
the experience of recent years has shown that there are great opportunities for increased production by the more general application of scientific knowledge to production methods.24 The Bureau of Agricultural Economics feels that . . .

So far many sections of Australia's rural industries are substantially unaffected even by knowledge which has been available for many years.25

Manufacturers are enjoying an excellent market in Australia. Many of them are virtually on a cost-plus basis. They have little to force them to seek export market. Suggestions have been made that the Tariff Board could do some good by expecting protected industries to aim at competing overseas instead of merely "... shrugging their shoulders about high costs. It is time some of our infant industries grew up."26

It seems reasonable to believe that the conditions underlying Australia's recent rapid development are sound and that the urge to expansion will continue. There are, however, real limits both internal and external to the rate of development Australia should undertake

24 This is the opinion of the Australian Bureau of Agricultural Economics.


26 John Eddy, Melbourne Herald, April 17, 1956.
if it is to maintain financial stability. When all possible has been
done to push back these limits, Australia will be able to achieve much
but probably less than most of the Australians would like. Austral-
ians are likely to be faced from time to time with the need to restrain
development plans, both public and private.

The most notable feature of Australia's export structure
over the history of the country has been the predominant position of
its primary products, especially the position of wool. Wool has ac-
counted for 34 to 67 per cent of the value of Australian exports in the
period since World War II. Wheat is the second most important item
among Australia's exports. The level of Australian exports has
varied to a much greater extent by value than by volume over the post-
war period. This has been due largely to the variations in wool
prices, which reached an all-time record in March, 1951, fell heavily
the following year, recovered in 1952/53 and 1953/54, and dropped
again at the opening of the 1954/55 season (see Table 6). Since wool
represents by far the most important single Australian export, vari-
ations in the price of wool have had a very marked effect on the Aus-
tralian balance of payments and on the economy as a whole. The
variations in recent years can be seen in Table 7.

27 The Bureau of Agricultural Economics estimates that a one
cent change in the price of wool will result in a $5 million change in
the value of wool exports.
### TABLE 6

**BALANCE OF TRADE: AUSTRALIA**

1934-38 and 1950/51 to 1954/55

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wool exports (a)</td>
<td>53.3</td>
<td>655.4</td>
<td>337.2</td>
<td>420.3</td>
<td>428.8</td>
<td>311.0</td>
<td></td>
</tr>
<tr>
<td>Other exports</td>
<td>89.3</td>
<td>326.4</td>
<td>337.8</td>
<td>451.0</td>
<td>401.8</td>
<td>466.5</td>
<td></td>
</tr>
<tr>
<td>Total exports</td>
<td>142.6</td>
<td>981.8</td>
<td>675.0</td>
<td>871.3</td>
<td>830.6</td>
<td>777.5</td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>114.6</td>
<td>743.9</td>
<td>1053.4</td>
<td>514.1</td>
<td>681.1</td>
<td>846.9</td>
<td></td>
</tr>
<tr>
<td>Balance</td>
<td>28.0</td>
<td>237.9</td>
<td>-378.4</td>
<td>357.2</td>
<td>149.5</td>
<td>-69.4</td>
<td></td>
</tr>
<tr>
<td>Wool as a percentage</td>
<td>37.4%</td>
<td>66.8%</td>
<td>50.0%</td>
<td>48.2%</td>
<td>51.6%</td>
<td>40.0%</td>
<td></td>
</tr>
</tbody>
</table>

(a) Includes greasy, scoured and carbonized wool, tops, noils, waste and sheepskins.

**Source:** Commonwealth Bureau of Census and Statistics.
TABLE 7.

EXPORT PRICE INDEX FOR WOOL

(Base: Average 3 years ended June, 1939 100)

<table>
<thead>
<tr>
<th>Year ended 30th June</th>
<th>Index Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>473</td>
</tr>
<tr>
<td>1951</td>
<td>999</td>
</tr>
<tr>
<td>1952</td>
<td>564</td>
</tr>
<tr>
<td>1953</td>
<td>616</td>
</tr>
<tr>
<td>1954</td>
<td>615</td>
</tr>
</tbody>
</table>

Source: Overseas Economic Surveys, Australia, p. 130.
This will give some indication of the influence of wool on Australia's trade balance. When the price of wool goes up there is a pronounced increase in Australia's export income. This has a significant effect on the volume of imports. When the price of wool went up to its record high in March, 1951 it stimulated import demands as the result of the great increase in export income. Thus the year 1951/52 saw a serious deficit in the balance of payments for Australia. The basic composition of Australia's exports are indicated by Table 8.
### TABLE 8.

**THE COMPOSITION OF AUSTRALIA'S EXPORTS, 1954/55**

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary products</td>
<td>$464m.</td>
<td>60%</td>
</tr>
<tr>
<td>Manufactured products</td>
<td>$53m.</td>
<td>7%</td>
</tr>
<tr>
<td>Processed products</td>
<td>$242m.</td>
<td>31%</td>
</tr>
<tr>
<td>Bullion and specie</td>
<td>$16m.</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$775m.</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Foreign Investment.

One of the most striking features of the Australian development in recent years has been the very large extent to which industrial enterprise from abroad has taken part in the expansion of Australia's manufacturing industries.

The entry into the Australian scene of important manufacturers from other countries has occurred in three ways. Some overseas firms have established direct subsidiaries in Australia, wholly owned, financed and operated by the parent company. Others have joined forces with local interests in creating a new enterprise or in expanding an existing one. In the third category, Australian firms have benefited by having agency arrangements with overseas manufacturers to use the latter's patents, trade names, and know-how on a royalty basis.

Although there are products which Australia does not manufacture, and is not likely to make for several years, there are few important items, particularly of basic materials, for which she does not now have significant manufacturing capacity. The more important gaps are being rapidly filled. The manufacture of rayon yarns, introduction of the most modern catalytic cracking plants for oil refining, and the production of ingot aluminum, all of which have become operative in the past few years, filled three of the most important gaps which existed.
For this reason it is unlikely that the immediate future will show such a range of spectacular new developments from abroad as has characterized recent years, but nevertheless evidence continues to accumulate that a steady rate of foreign investment will be maintained. New opportunities will probably present themselves for the introduction of new processes based on improvement and refinement of technology. New production, competitive with existing operations may also develop. This appears to be the current trend in overseas development. In either case there should be general improvement in efficiency and a spur to reduction in costs.

During the early postwar period, by far the largest investments announced by firms with overseas links were for the metals and engineering group. The next largest was the chemicals, oils, and fertilizers group. The third group was in the textile area, followed by food processing industries. The United Kingdom and the United States were the largest participants in these investments. United Kingdom firms also carried out investment in paper, in printing, and in rubber products.

The relative significance, however, of overseas investments during this period was different. The value of the projects in the chemical industry in which companies with major overseas interests have been involved represents probably two-thirds of total investment in the industry in the postwar period. In textiles, it would be about
50 per cent, in the engineering and metal trades about one-third, and
in the food processing group about one-fifth.\textsuperscript{28}

A significant recent development has been the increase in
investment by companies with United States interests to the point
where it equals in importance the investment by companies with
United Kingdom interests. It is notable that most of the investment
by companies with major overseas interests has been in industries
producing basic materials and capital equipment. Most of the largest
chemical companies in Australia are owned, in large part, by over-
seas interests. Overseas investment, mainly from the United King-
dom, has made a major contribution towards the development of
Australia's chemical industry besides providing access to many of the
advanced processes and practices from overseas. Some of these
funds have greatly expanded production of alkalies, and chlorine.
Other investments have aided in the beginning of production of plastic
moulding powders, pesticides, weedicides, and agricultural chemicals
many of which had not previously been made in Australia. Also,
recent developments include the production of titantium dioxide for the
first time in Australia, and the considerable development of the paint
industry which is controlled by overseas capital. Moreover the only

\textsuperscript{28}National Development, "Overseas Investment in Industry", Number 13, March 1956, p. 6.
plant in the Southern Hemisphere capable of producing a full range of flexible coated abrasives, materials essential to almost every form of manufacturing, is another development. Australian requirements of these products and also of pressure-sensitive adhesive tape, had previously been imported, but now Australia produces an export surplus.

Most of the investment for the chemical group recently has been in the field of oil refining. Four new plants have been constructed and are now in production. Other projects in the chemical field include the further expansion in the manufacturing of industrial gases, pharmaceuticals, and the manufacture for the first time in Australia of some of the latest antibiotics.

In the treatment of metals, both ferrous and non-ferrous, including the production of finished shapes and products, substantial capital from the United States and the United Kingdom has been contributed in recent years. This has resulted in expanding the production capacity of roll-steel sheets, and a substantial increase in the range and quantity of pipe and tube production.

One major achievement of United States capital and technology in combination with Australian workmanship was the manufacture of the Australian Holden car by General Motors. International Harvester has started construction of trucks and wheeled tractors.
The Ford and Chrysler Companies have continued to increase the Australian content of their vehicles. The English motor vehicle companies of Rootes, Nuffield, Austin, and Standard have each set up large plants in Australia and plan further developments.

Investments by major United Kingdom companies which have made notable developments in the engineering field include those making machinery and equipment for a range of heavy industries. These include mining, the production of electrical generators, traction equipment, and transformers. Also the production of condensers, feedheating and other equipment for heavy electrical generators.

Australia has also become one of the foremost manufacturers of construction and excavating equipment, partly as the result of investment by companies in the United States and the United Kingdom. Many new products have been introduced to Australia in the postwar years with the assistance of overseas capital and technology. Some of these new products include razor blades, clocks, hearing aids, lubricating equipment, television, precision-roller chain, and flexible shafting for power drives.

The food processing industries were, until recently, chiefly financed by local capital but a number of important overseas companies have now entered the field. The largest current project is that of H. J. Heinz which has begun operations for the processing and
canning of vegetables and recipe foods. Other American and British firms are now in the milk industry. Companies associated with soft drink manufacturing in the United States are now established in Australia. These activities, and a host of others, have advanced the capacity of Australia as a manufacturing nation.

Australia's policy is growth. That is why it carries the considerable burden of large scale immigration. That is why it is so concerned to sustain development at the highest possible rate. Because overseas investment is needed to help carry out this policy, everything possible must be done to encourage such investment. With this end in view Australia is, for example, negotiating a Treaty of Friendship and an Agreement on Double Taxation with the United States. Also, to be valued is the stimulus of new technical and industrial ideas which the world abroad can give Australia. Australia, therefore, in the future as in the past, will need to look for a large and continuing flow of overseas investment in her manufacturing industries and, also, in the primary industries.

The Federal government and the state governments have all borrowed from various sources to carry out necessary projects for development. Extensive power, irrigation, highway, reclamation, and land development programs were undertaken. These projects were necessary to create the needed facilities for the industrial
expansion that was being carried on in the private sector. World
Bank loans have played a full part in these developments. These
loans now total $318 million and have been used for the import of
machinery and equipment from North America to assist the progress
of every sector of the economy.

The Nature of International Capital Movements. Three types of
changes in Australia's external capital position are particularly note-
worthy, namely, the reduction of external public debt; the inflow of
private foreign capital; and the building up of sterling balances in
London. Australia's external debt was reduced by £194 million dur-
ing the first five years of the postwar period. The prewar debt of
Australia's Federal, state, and municipal governments constituted
over 70 per cent of the country's foreign liabilities. This kind of
fixed obligation, incurred usually in periods of high prices, becomes
a heavy balance-of-payments burden in a depression. Payments on
newly incurred external debt will not be as rigid as in the case of the
public debt. Much of the long-term private investment is in equities,
payments on which fluctuate with changing business conditions. In
periods of depression, these payments would be reduced.

The great movements of private foreign capital into Australia
were of two kinds. Part of it was capital for permanent investment
in Australia; a large part, however, in the period up to 1950, was a
"hot money" movement caused by the prospect of appreciation of the Australian pound against the pound sterling. It is difficult to determine how much of this capital movement was "hot money". The Commonwealth Bank estimated such movements at about two-thirds of the total inflow of capital in the four years ending June 30, 1950.29

The effect of this capital inflow in the Australian economy depended on the use to which it was put. The "hot money" invested in Australian securities added to the Australian money supply and to the problem of the Commonwealth Bank but, unless it provided finance for industrial operations which would not have taken place without it, the effect was not necessarily inflationary. Part of the capital inflow resulted, however, in an expansion of industrial capacity. This produced an increased demand for raw materials, new equipment and labor. While, in general, it would seem that investment by hard currency countries provided additional foreign exchange which could be used to increase hard currency imports and thus reduce inflationary pressure, a large part of the soft currency foreign investment added to the demand for scarce labor and goods without being able to produce a commensurate increase in Australian purchases abroad.

Official estimates of the expansion programs of private

manufacturing firms, proposed or begun from the end of World War II through 1948, indicated the importance of foreign investment.

Over 35 per cent of the estimated expenditure of £143 million was of overseas capital. Nearly all of this was accounted for by concerns with interests in the United Kingdom and the United States; expenditure of the United Kingdom concerns being 70 per cent greater than those of the United States.\(^{30}\) It would seem that in a period of world prosperity Australia would find no difficulty in maintaining an inflow of long-term foreign capital sufficient to finance a current account deficit. Even if a large proportion of foreign capital entering Australia is of speculative nature, the overall movement is of such magnitude as to provide a sufficiency of long-term capital for development plans.

Foreign investment in companies in Australia is predominately direct investment where some measure of overseas control is involved. Only 9 per cent of the total value of investment at the end of June, 1956 was portfolio investment, that is, holdings of fixed interest assets, or shares of a volume insufficient to achieve effective control of a company.\(^{31}\)

[^30]: Industrial Australia; the Union Bank of Australia Ltd., London and Melbourne, 1949, Passim.

Reflecting a marked United States preference for direct investment, only 2 per cent of United States investment is of a portfolio type. United States companies, moreover, as a rule hold a higher proportion of the ordinary shares of their Australian subsidiaries than do British firms.\(^{32}\) The United States preference for ownership of all, or nearly all, the ordinary shares of their subsidiaries probably arises partly from the United States' practice of plowing back profits and partly from the desire to avoid adverse publicity and possible criticism by local minority shareholders resentful of a policy of dividend limitation.

Foreign company investment has accounted for an important part of total private investment in fixed equipment in Australia. (See Table 9.) The contribution of foreign capital to investment in manufacturing industries has been partly prominent. About one-third, by value, of the manufacturing projects commenced in Australia since 1945 has been undertaken by companies wholly or partly owned abroad.\(^{33}\)

Over one-half of total United States investment in Australia is in manufacturing. In addition to direct financial interest in

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\(^{32}\) About 85 per cent.

\(^{33}\) Department of National Development, Developments in Australian Manufacturing Industry, 1954-55.
### TABLE 9.

**FOREIGN COMPANY INVESTMENT IN AUSTRALIA**

<table>
<thead>
<tr>
<th></th>
<th>Gross private investment in fixed capital equipment, excluding housing and passenger cars (a)</th>
<th>New foreign company investment in Australia (including reinvested profits) (b)</th>
<th>B as a percentage of A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947-48</td>
<td>138</td>
<td>36.1</td>
<td>26.2</td>
</tr>
<tr>
<td>1948-49</td>
<td>179</td>
<td>39.4</td>
<td>22.0</td>
</tr>
<tr>
<td>1949-50</td>
<td>240</td>
<td>73.1</td>
<td>30.5</td>
</tr>
<tr>
<td>1950-51</td>
<td>329</td>
<td>61.9</td>
<td>18.8</td>
</tr>
<tr>
<td>1951-52</td>
<td>413</td>
<td>84.0</td>
<td>20.3</td>
</tr>
<tr>
<td>1952-53</td>
<td>370</td>
<td>24.4</td>
<td>6.6</td>
</tr>
<tr>
<td>1953-54</td>
<td>405</td>
<td>62.9</td>
<td>15.5</td>
</tr>
<tr>
<td>Total (7) years</td>
<td>2,074</td>
<td>381.8</td>
<td>18.4</td>
</tr>
</tbody>
</table>

(a) Comprises the Commonwealth Statistician's National Income and Expenditure categories "other new building and construction" (i.e., other than dwelling construction), "trucks, utilities, etc." and "other capital equipment". The category "other new building and construction" includes, however, a considerable volume of construction for non-commercial purposes (e.g. churches), and to that extent the figures understate the contribution of oversea capital to commercial investment in Australia. (b) Excludes life insurance companies.

companies by overseas investors, numerous products are being made in Australia under licence from overseas companies and some companies employ United States equipment under royalty arrangements.

The Consequences of Foreign Investment. The capital inflow represented by direct foreign investment in Australia makes an immediate contribution to Australia's receipts of foreign exchange. It cushions the impact on the international reserves of deficits on current international transactions, and serves to augment the increase in the reserves in times of surplus. In other words, it enables Australia, for a time, to spend more on overseas goods and services than she earns from exports, without running down her international reserves.

Much foreign investment in Australia is in import replacement production. Partly as a result of actual or potential import restrictions, a large portion of the projects undertaken by overseas companies in Australia since World War II has been designed to produce goods previously imported. Moreover, some foreign investment is in production of goods for export and other investment originally undertaken with a view to meeting local demand, eventually contributes to export earnings.

Foreign investment of direct type is frequently accompanied by technical knowledge, the introduction of which helps to increase the
level of productivity. The time lag between the discovery of new processes overseas and their adaptation to Australian conditions is, therefore, considerably reduced. This is a general economic gain which, it can be claimed, contributes to a lessening of balance of payments difficulties in the long term.

An immediate obvious cost of foreign investment is that it creates, for the recipient country, problems of repayment. There is also the problem of meeting service payments in the form of local earnings remitted overseas. Clearly, remittances overseas increase in proportion to the volume of local foreign investment and the rate of profitability (after local taxation) unless re-investment of profits also increases.

Continued ploughing-back of profits does, however, result in a marked increase in local earnings and eventually in remittances overseas. The dangers here are that, as service payments on past investments are a continuing outflow, they may, in a short time, substantially exceed the rate of new capital inflow, and the earnings of overseas investors may grow into a very large obligation absorbing a substantial part of Australia's foreign exchange. For example, if, within a few years, a decision by United States firms to repatriate profits as dividends instead of ploughing them back could absorb the whole of Australia's dollar income and force the imposition of even
more drastic restrictions upon imports of developmental equipment for Australian rural industries and manufacturers. 33

The burden on the balance of payments generally is not yet disturbing. In 1953/54 remittances of investment income payable overseas by companies operating in Australia amounted to only 4.3 per cent of Australia's total export income. Total payable income amounted to 8 per cent of total export receipts. However, these proportions are rising at a rapid rate, having averaged only 3.5 and 5.4 per cent respectively in the three years ended June, 1950. In 1954/55, with reduced export proceeds and possibly higher company profits, investment income payable overseas may well have risen further as a proportion of total export receipts. 34

Moreover, the level of new foreign-company investment in Australia has been subject to marked fluctuations from year to year. These can be compared with changes in gross private investment in fixed capital equipment from domestic sources (see Table 10).

33 For so long as the world's major non-dollar currencies remain inconvertible into dollars (which means that foreign exchange earned by Australia in non-dollar areas cannot be used to make payments to the dollar area), the availability of dollars will continue to be a factor of crucial importance for Australia.

34 Melbourne Age, June 6, 1956.
<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Domestic Private Investment (a)</th>
<th>% Change from L.A. M. Previous Year</th>
<th>Overseas Investment in Companies in Australia (b)</th>
<th>% Change from Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947-48</td>
<td>101.9</td>
<td>+37.0</td>
<td>36.1</td>
<td>+ 9.1</td>
</tr>
<tr>
<td>1948-49</td>
<td>139.6</td>
<td>+19.6</td>
<td>39.4</td>
<td>+ 85.5</td>
</tr>
<tr>
<td>1949-50</td>
<td>166.9</td>
<td>+60.0</td>
<td>73.1</td>
<td>- 15.3</td>
</tr>
<tr>
<td>1950-51</td>
<td>267.1</td>
<td>+23.2</td>
<td>61.9</td>
<td>+ 35.7</td>
</tr>
<tr>
<td>1951-52</td>
<td>329.0</td>
<td>+ 5.0</td>
<td>84.0</td>
<td>- 71.0</td>
</tr>
<tr>
<td>1952-53</td>
<td>345.6</td>
<td>- 1.0</td>
<td>24.4</td>
<td>+157.8</td>
</tr>
<tr>
<td>1953-54</td>
<td>342.1</td>
<td></td>
<td>62.9</td>
<td></td>
</tr>
</tbody>
</table>

(a) Gross private investment, from domestic sources, in fixed capital equipment other than dwellings and motor cars and cycles.

(b) Excludes live insurance companies.

Reversal, cessation or a slacking in the rate of capital inflow could have major destabilization effects on the level of internal economic activity in Australia as well as on the balance of payments.

Although it cannot be disputed that some direct foreign investment augments local production of goods which would otherwise have to be imported, the net import saving from such investment may be considerably less than might appear on the surface. Heavy expenditure overseas on capital equipment, raw material, components for assembly, and the like, may be involved. This is, therefore, another reason why a given inflow of investment capital may not make a contribution to the balance of payments equivalent to the same amount of foreign exchange supplied by increased Australian exports.

Australia's recent experience is that the added stimulus of direct foreign investment is inflationary in an economic situation such as the present one, namely, of pressure on the use of key domestic resources, and that it may aggravate imbalance in the pattern of investment. As previously mentioned, much foreign investment in Australia is in the manufacturing industries. This tends to deprive of resources the primary industries and basic industries such as transport and power.

**Investment Climate.** In recent years, foreign investors have become increasingly interested in Australia as a field for investment
because of the country's favorable investment climate and the variety of opportunities. A principal element of the favorable investment climate is the Australian attitude toward foreign private investment. Successive governments of varying political complexions have welcomed foreign investment and have publicly recognized that without such investment Australia would probably have to slow its present rapid rate of development or lower its high standard of living. The government has not actively endeavored to seek out specific investors abroad and persuade them to invest in Australia, but it has enthusiastically assisted and cooperated with foreign investors in the establishment of enterprises in Australia. In the application of laws and regulations, foreign owned enterprises received substantially national treatment.

Informed public opinion also favors foreign private investment. Australian businessmen, both individually and in organized groups, have urged action to attract more foreign private investment. Leading economists have expressed similar views. Most of the Australian newspapers editorially support the principle of foreign investment, and assiduously report all newsworthy instances of such investment coming to their attention.

Political stability in Australia has been notable. Not since early colonial days has an Australian government been changed except
by the regularly constituted electoral processes. Despite differences of opinion among the major political parties, the policies of the parties while in power have differed only in a relatively small degree, the assumption of office tending to make each party moderate in its actions. No serious threat of subversion from within or impending danger of attack from abroad exists, despite the fact that a small, active Communist Party is influential in a few important Australian trade unions and the Australian Continent is not far removed geographically from areas of political ferment in Asia.

The rapid rate of growth of the Australian economy has produced stresses and strains which have been intensified by dependence on a small number of food and raw material exports. However, the government has endeavored, with considerable success, to prevent economic activity from fluctuating unduly. The principal problem has been inflation which arises from efforts to develop the country rapidly, and at the same time to maintain full employment and sustain or improve the high standard of living.

Summary.

In considering Australia's international trade it has been noted that various devices have stimulated the manufacturing industries, particularly the import-competing industries. Total Australian protection is today very high, for it consists of the sum of any bene-
fits obtained from devaluated currency, Imperial Preferences, tariffs, import restrictions, and the like. Tariffs and import restrictions have raised product prices more than input costs in the manufacturing industries and have increased input costs without expanding product prices in the rural industries. As investment moves in the direction of greatest profits, this induced change in relative profits has led to a lesser amount of investment and production in the rural industries.

The resultant decline in investment in the rural industries as compared to the manufacturing industries has put pressure on Australia's ability to export. At the same time Australia's increasing population is consuming some of the commodities formerly exported. This results in a decline in the ability of the Australians to import the material essential for carrying out development projects.

The Australian government is undertaking many different plans to overcome this problem. Some of these undertakings are proving to be to some degree successful. Also various restraints and controls have been imposed upon the Australian economy to aid the government in its efforts.

Investment in Australia had contributed greatly to overcoming some of these problems. At the same time, though, investment is also creating problems. Investment in Australia from foreign sources
which has a bearing on Australia's balance of payments suggests that there are numerous adverse effects and associated risks. These must be weighed against the favorable aspects of this type of capital inflow.

Foreign investment, both direct and indirect, has aided Australia in reducing its dependence on the rural and other established export industries in paying for imports required to maintain the development program. Though, direct foreign investment may well increase that dependence. The consequences of direct foreign investment for the balance of payments vary, of course, from industry to industry and from one undertaking to another.

In the light of these considerations, Australia's present and prospective balance-of-payments position would appear to call for a policy of critical selectivity in the admission of, and in the granting of assistance to, direct investment from abroad.
FOREIGN TRADE POLICY

Introduction

Widespread acceptance in Australia of the need for concerted action to assure prosperity and expand economic frontiers has led the government to exercise a powerful influence on economic affairs. Many techniques are employed—exchange controls, import/export controls, customs tariff, tax and fiscal policies, and labor regulation.

Import controls are now the favored tool for correcting an adverse balance of payments. Importers are allowed licenses to import only a specific percentage of their base-year imports of a given commodity. This percentage, which varies for different goods, may be raised or lowered periodically as foreign exchange reserves rise or fall, and as Australian demand for the item fluctuates. Licenses are required for substantially all imports. The government determines quarterly the volume of goods to be permitted as imports, and establishes quotas for each importer. The latter takes his license to a commercial bank which issues him the foreign currency allowed by the license.

Generally, import licenses are granted without discrimination as to country where the goods will be purchased, except for goods to be obtained from a dollar country. For dollar goods, licenses are issued only if essentiality can be established and non-availability of
comparable goods from non-dollar producers. It should be pointed out that dollar imports used for investment are not subject to quotas when financed from abroad, although import licenses must be obtained. Such transactions involve no drain on Australia's dollar resources.

Import licensing under this system has aroused some opposition. Other techniques to achieve the same end—correction of an adverse balance—would be devaluation, a general tariff increase, or a restriction on immigration. Also monetary and fiscal controls could be used. An increase in the price of gold would also help Australia with its dollar problem. For various reasons the other techniques are less desirable than an import licensing system. In the case of gold prices the change is beyond the power of the Australian government. Import licensing is now recognized as the fairest way to allocate available reserves and appears to be a solidly entrenched policy. It appears that in the present situation in Australia the import licensing system is, in reality, the best policy.

Export licenses are required for all shipments. These are important chiefly as a device to assure that export revenues find their way into exchange reserves. The foreign exchange earned by the exporters must be sold to the Commonwealth Bank.
Customs duties are levied for several reasons—to raise revenues, to support British manufacturers, to protect domestic industry from overseas competition. A three-column tariff provides a low, "British Preferential" rate; a high general rate which is applied to very few countries; and an intermediate rate. Goods not produced in Australia are admitted free of duty from Britain (except that a revenue tariff may be levied, depending on the article), and at a rate of usually 12 1/2 per cent from other countries. Protected goods are admitted at varying rates, usually from 10 to 40 per cent. There is 12 1/2 to 20 per cent margin or preference for British goods. Other tariffs may be levied such as a primage duty, a special rate to prevent dumping, is sometimes invoked.¹

Progressive elimination of the tariff, except as a revenue producer, is a long-term probability. As a participant in GATT, Australia has already made a number of tariff concessions. The cost of protection is a burden to many, and the preference system is particularly criticized by many Australians. The tariff is accepted in Australia as necessary for the creation of an industrial economy.

¹The Australian Tariff, The Department of Trade, 1958, Passim.
Free trade is not immediately in prospect, but its desirability under improved conditions of world trade is widely recognized.

Exchange controls require authorization for any purchase, sale or exchange involving foreign currency. Export revenues are thus brought into the Commonwealth reserves, and currencies received by Australians via other transactions are also acquired by the government. Traditionally, profits on investments by foreigners in Australia may be repatriated without restriction although application to repatriate such funds must be made. This policy has been followed during the most stringent balance-of-payments crises. However, repatriation of capital and of capital gains is allowed only under special circumstances. Liquidation of an unsuccessful company would probably be grounds for permitting repatriation, whereas sale of a going concern might not be favorably considered. The policy in the case of profits is designed to attract foreign investments. In the case of capital the prohibition is felt to be necessary to avoid large drains on exchange reserves.

The most important governmental policy affecting Australia's position in world trade is undoubtedly its ties with the United Kingdom and the Sterling Area. Both sentiment and sheer necessity contribute to this relationship. 80 per cent of Australia's foreign trade is financed in sterling. Imports from the United Kingdom
account for 40 to 50 per cent of Australia's total imports, while those from the United States are only 10 to 15 per cent. The United Kingdom takes 30 to 40 per cent of Australia's exports, the United States only six or seven per cent. Furthermore, much commerce—shipping, banking, and insurance—in Australia is dominated by British firms. Australian governments normally float loans with the Bank of England, or on the London financial market. For these reasons, Australia remains a member of the Sterling Area. This comprises those countries which pool their reserves of dollars under management of the bank of England, and who transact most of their business in sterling.2

Foreign Trade Agreements and Negotiations

The basic principles of Australian commercial policy are to give tariff protection to efficient domestic manufacturing industry, to safeguard the United Kingdom's position as a preferred supplier as provided by the Ottawa Agreement, and within the framework of the General Agreement on Tariffs and Trade to persuade the countries receiving Australian exports to lower their trade barriers.

Reciprocal tariff preference between Australia and the United Kingdom and other units of the British Commonwealth began

2The Sterling Area, p. 221.
in 1908. The agreement reached with the United Kingdom at the Imperial Economic Conference at Ottawa in 1932, however, formed the basis of the preferential system until a new agreement was signed in 1956 between Australia and the United Kingdom.

Australia had become somewhat dissatisfied with the end results of the United Kingdom-Australian preference system. United Kingdom preferences on Australian goods, being at specific rates of duty, have lost much of their protective effect with the sharp rise in prices since the war; on the other hand, Australian preferences to United Kingdom goods, being at ad valorem rates of duty, have retained their protective effect. The Australian authorities expressed a desire to renegotiate the system of preferences to bring the benefits to each country into better balance. This was held up until the "no-new-preference" rule of the General Agreement on Tariff and Trade was relaxed to permit such renegotiation. According to the Department of Trade...

The new agreement preserves the principle of mutual preference which has been basic to the trade policies of successive Australian Government's and on which so much of Australia's overseas trade is dependent. Although this principle has been preserved the Australian Government has been successful in obtaining modifications in the contractual agreements between
the two governments which take account of the changes in the world trading environment since 1932.3

From the Australian point of view, the principles on which the agreement has been reached, preserve, and in some important cases enhance, the position of Australian exports entering the United Kingdom market. On the other hand, by providing the opportunity for Australia to reduce preference margins accorded to United Kingdom goods in the Australian market, it will not only reduce duty-paid costs of foreign goods to Australian industries but will also lead to greater scope for developing Australian exports to those countries.4

The new agreement was to be effective initially for a period of five years and there are several basic provisions. Where Australian goods at present enjoy duty free entry to the British market this will be continued. The United Kingdom also has agreed to increase the range of Australian goods on which it will guarantee the

3Press Release, Department of Trade, Canberra, Tuesday, November 12, 1956.

4Australia exports many of its commodities in countries not covered by the Imperial Preference Agreements. Therefore, with lower preferences to Britain, Australia could make better agreements with other countries. When the preferences were lowered the tariff rate was lowered by the amount of the reduction in the preference.
existing margins of preference in her market. While, in those cases where the margin of preference accorded Australian commodities is not subject to a contractual arrangement, the Australian government will be consulted about any proposals to reduce such margins. Also, an understanding has been recorded on the opportunity for the sale in the British market on commercial terms of a minimum of 28 million bushels of Australian wheat and flour annually over the next five years.

Australia is empowered to reduce the margin of preference accorded to British goods to 7 1/2 per cent on a wide range of goods which are basic to Australian industry irrespective of the level of the present preference margin accorded to the United Kingdom. When the rate of duty applicable to British goods is not in excess of 10 per cent, the minimum margin of preference will also be 7 1/2 per cent. On all other goods, the margin of preference will also be reduced to 10 per cent.

The final decision rests with the Australian government regarding the admission of goods into Australia under customs by-laws. Also special arrangements have been made for consultations between the two governments on their agricultural production and marketing policies, on the disposal of surpluses, and on the United Kingdom's food import policy. It has been further agreed that the
British government will introduce legislation to enable it to impose anti-dumping or countervailing duties should the need arise.\(^5\)

The Ottawa agreement had been of considerable benefit to both countries in the difficult depression years, but it had become unduly burdensome in the light of subsequent changes in the structure of the Australian economy and in world trading conditions. However, the Australian government felt that a mutual preference arrangement was still in the best interests of the Australian economy provided that, within such an arrangement, there would be significant opportunities for reducing the cost of imported goods, for developing wider trade possibilities with other countries, and for obtaining a degree of protection for Australia's export commodities in a world market subject to a wide range of unfair and restrictive practices.

The Australian government has no intention of departing from its clearly established policy of providing protection through the tariff to domestic industries. In fact, this policy is written into the new Agreement as was the case of the Ottawa Agreement. Thus, before taking advantage of the scope for reducing preference margins, the government will, where protection to an Australian industry was involved, ensure that domestic industries are not deprived of

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\(^5\)Press Release, Department of Trade, April 9, 1957.
protection. Australian industries will, in addition, benefit from lower duties which will apply in connection with raw materials and plant and equipment imported from foreign countries.

The government's second objective in seeking a review of the Ottawa Agreement was to obtain some room for manoeuvre in its negotiations with other countries, and in particular for those countries who are good customers for Australia's exports. The competitive position of foreign suppliers to Australia will, of course, be enhanced to the extent that the preferential treatment accorded British goods is reduced. This opportunity for increased access to the Australian market would, it is hoped, lead to improvements in the treatment of Australia's goods entering other overseas markets.

In the trade discussions, the Australian government got an assurance of access to the United Kingdom market for its agricultural exports. Under the former trading conditions, the protection in the overseas markets of domestic agriculture, the extensive use of subsidies by Australia's competitors, and the problems associated with the disposal of accumulated surpluses, had become so important that at times they would over-ride tariff preference considerations. Under the new "no new preference" provisions of GATT, Australia was not in a position to seek higher margins of preferences in the United Kingdom market for its goods. However, as a means of
ensuring Australian exports the maximum protection possible within this framework, the Australian government has succeeded in obtaining a guarantee of existing preference margins on a wider range of goods than was covered in the Ottawa Agreement. In addition, the two governments have recognized the importance of non-commercial competition from dumped or subsidized exports, and the British government has agreed to introduce legislation which would permit remedial action to be taken. The United Kingdom has also undertaken to afford the Australian government full opportunity for presenting its views prior to changes in the United Kingdom policy on domestic agriculture, imports of food, and particularly on imports of subsidized commodities.

In this regard, the commodity most susceptible to these influences has been wheat. Recognizing this fact, the United Kingdom has indicated that its positive policy objective is the purchase of Australian wheat and flour amounting to not less than 28 million bushels in each of the next five years covered by the agreement. This minimum figure does not include higher protein wheat, sales of which would be additional. In recent years, Australia's sales of wheat and flour to the United Kingdom have been significantly below 28 million bushels.
The negotiation of this new trade agreement between Australia and the United Kingdom brings up to date the provisions of the Ottawa Agreement and is without a doubt the most important development in Australia's overseas trade policy since the principle of reciprocal preferential tariff treatment was placed on a formal basis in 1932. When the major Australian industrial organizations were consulted prior to the commencement of the negotiations, almost without exception they stressed two issues as cardinal objectives for Australia; the maintenance of the preferences for Australian foodstuffs in the United Kingdom, and the vital necessity of relieving the Australian economy of the excessive costs inherent in the preference margins accorded United Kingdom goods under the Ottawa Agreement. Both of these objectives have been achieved.

Trade agreements providing reciprocal tariff preferences were negotiated with New Zealand in 1922 (amended in 1933), with Canada in 1925 (amended in 1931), with Southern Rhodesia in 1941 (replaced by the agreement with the Federation of Rhodesia and Nyasaland in 1955), and with the Union of South Africa in 1935. The preferences provided in each of these agreements have been included in the Australian tariff. Preferential tariff treatment is also given to numerous items produced in the Australian Territory of Papua and New Guinea, which is a separate customs area.
Australia has at the present several formal and informal agreements with several nations not members of the Commonwealth. These cover a wide range of topics and commodities. Australia also has agreements with some of the Western European nations concerning the migration of the nationals of these countries to Australia.

One of the most important agreements in which Australia participates is the General Agreement on Tariffs and Trade. Australia was one of the original negotiators of the agreement in 1947. The general objectives of the agreement were to reduce tariffs and preferences and to eliminate trade restrictions on a reciprocal basis. Australia played a prominent part in the General Review conference in 1954/55 to revise the agreement in the light of intervening experience. 6

Australia has belonged to several commodity agreements including the present ones covering sugar, wool, and wheat. In all of these Australia is on the exporting side. Australia has been a part of

6 After seven years of operation the Australians wished to review and revise GATT. The provisions of the Agreement relating to preferences, bound rates of duty, commodity policy, and quantitative restrictions were the sections that the Australians desired to review. The ban on new or increased preferences under GATT had presented difficulties to Australia in a number of ways. Australia was not completely successful in its efforts but nevertheless major gains were made. Particularly the new agreement gave countries like Australia virtually automatic authority to negotiate for the adjustment of bound rates on selected items at any time.
some commodity agreements as an importer, especially during war periods when some strategic commodities have become scarce. In addition Australia has entered into a large number of intergovernmental commodity contracts with the United Kingdom covering a wide range of foodstuffs and resources.

The Customs Tariff

During the colonial period the flow of goods among the colonies was impeded by tariffs which in each colony, except Victoria and Queensland, were purely for revenue purposes. One of the prime purposes of the move for federation of the colonies into a single economic unit was the elimination of tariff barriers to intra-Australian trade, and the Commonwealth Constitution provided for centralization of tariff making powers in the Commonwealth Government.

Protection is a policy accepted by virtually all segments of public opinion in Australia and Parliamentary debates on tariff revisions usually are conducted on nonparty lines. The generally accepted justification of protectionism in Australia is that it fosters economic growth and development and, in particular, that by encouraging manufacturing it provides the employment necessary to support the rapid increase in population necessary for Australia's security. Organized labor supports protectionism for these reasons and also
because it enables manufacturers to pay good wages even in small-scale industries and thus tends to maintain all wages at a level desirable to labor.

A Tariff Board was established in 1921 to advise the government regarding the appropriate level of import duties and bounties and to make other recommendations relating to tariffs and customs administration. The Board is a nonpartisan body of experts which makes careful investigations, and its recommendations usually are accepted by the government and enacted into law.

The customs tariff now in effect in Australia is the 1933 tariff as subsequently amended. It is a three column tariff with British preferential, intermediate, and general rates. The British preferential rate applies to most goods imported from the United Kingdom, Canada, and New Zealand and to specific goods from the Territory of Papua and New Guinea, Federation of Rhodesia and Nyasaland, and United Kingdom non-self-governing colonies and other dependent territories. The intermediate rate where operative applies to imports from most other countries. The general rate applies to all imports from a relatively few countries, including Japan. The most-favored-nation rate is the intermediate rate.

Tariff rates are largely in ad valorem terms. The proportion of such rates has tended to increase during the last few years
because of the more effective protection they afford in an era of rising prices. In addition there are specific and composite rates. Where ad valorem rates apply the dutiable value is the equivalent in Australian currency of the f.o.b. cost, excluding outside packages, in the country of origin, or the domestic value in the country of origin, whichever is higher.

Items in the tariff may be grouped into three broad categories for duty purposes--revenue, non-protected, and protected items. High specific duties normally apply to revenue items which include beer, spirits, tobacco, gasoline, and matches. Excise duties are also imposed on many of the domestically produced goods in this category and in some instances a protective margin exists.

Tariff assistance to domestic industries is provided by the Australian "bylaw" system whereby specified goods, principally raw materials and producers goods not produced in Australia or in specified British Commonwealth countries, may be imported free, or at concessional rates of duty. In general, tariffs on industrial machinery and plant equipment are low, except when competition with Australian production is involved.

Australia in the Sterling Area

The Sterling Area can be defined as a group of countries with close and traditional commercial and financial ties to the United
Kingdom, who find it advantageous to keep most of their reserves and settle their debts to one another in sterling with balances held in London for this purpose. Nearly all of these countries (a notable exception is South Africa) settle their nonsterling transactions by purchasing such exchange from central reserves managed by the Bank of England, to which they have also agreed to sell their non-sterling earnings. Member countries in the Sterling Area at the present are the United Kingdom; the other self-governing countries of the British Commonwealth except Canada; dependent territories and protectorates of the British Commonwealth; and Ireland, Burma, Iraq, Iceland, Libya, and Jordan.

Australia is a part of the Sterling Area for a variety of reasons. Strong ties of sentiment, tradition, and culture make for a close relationship with the United Kingdom. The common allegiance to the British Crown, which is a strong force in Australia, binds the two countries politically. Australia is the single most important market for United Kingdom exports, and the United Kingdom for more than 100 years has taken the major part of Australian exports and furnished most of the foreign capital entering Australia. The system of tariff preferences operating between the two countries has tended to perpetuate the preferred position of each in the other's markets, and successive Australian governments have followed a
policy of preserving the United Kingdom's preferred position where this does not conflict with efforts to promote industrial development.

Prewar, Australia settled the international payments deficit with the proceeds of exports to other countries. Because of inconvertibility, this has not been possible postwar, and the Australian authorities have restricted dollar imports stringently in an effort to achieve the nearest possible balance of dollar accounts. Australian importers, consequently, have had to turn to other sources of supply—generally the United Kingdom, because of tariff preferences. Thus, the inconvertibility of sterling has resulted in some diversion of Australian import trade in consumer goods from the dollar area to the Sterling Area, with a consequent strengthening of Sterling-Area trade relationships.

At the same time the intensive domestic efforts at economic development have increased requirements for dollar-origin industrial raw materials, semi-finished goods, and finished goods. As a result, despite the fact that in general Australia depends to even a greater extent than prewar upon the Sterling Area for most of its supplies of consumer goods, Australian domestic manufacturing industry relies increasingly upon dollar goods. This trend is developing slowly and the degree of importance it eventually assumes will depend on the volume of United States investment in Australia, the only significant
additional source of dollar income foreseeable at present. The Sterling Area functions on the principle of mutual advantage and Australia contributes too as it benefits from the area. Australia is a principal source of nondollar foodstuffs. It is the principal supplier of wool and to a lesser extent of metals and minerals which are processed in the United Kingdom into goods for export to the dollar area. The value of the Australian raw-material content of these exports may approximate Australia's drawings on the dollar pool.

In one respect Australia has preserved independence of action from the Sterling Area, namely, with the proceeds of its gold production. In contrast with the proceeds of Australian merchandise exports to the dollar area which are contributed to the Sterling Area dollar pool, gold and the proceeds of its export are retained separately by the Australian Commonwealth Bank. From the disposal of the gold, funds are drawn to redeem maturing Australian government securities held in the dollar area and for other special purposes.

**Government Trade Controls**

**Import controls.** The scope of the system of import restrictions instituted by Australia during World War II was progressively narrowed in the postwar period until by November 1950 restrictions had been removed from imports of goods from all
sources except the dollar area, Japan, and a few other countries of minor importance to Australian import trade. However, the restrictions were re instituted in March, 1952 following a drastic decline in foreign exchange reserves, and they have continued in force with varying degrees of stringency. Following a series of relaxations, the restrictions were tightened considerably in April, 1955 and again in October, because of a further decline in foreign exchange reserves.

Controls over imports into Australia operate through an import-licensing system. In general, imports from all non-dollar sources are licensed without discrimination as to source, the individual importer being permitted to purchase from any country he desires a specified percentage of his total base-year (1950-51) imports of a given commodity. The percentage varies with the category of import. Currently, consumer goods and other less essential goods are being licensed at less than one-half of the base-year rate, and more essential goods are being admitted at or just below the base-year volume. Many industrial raw materials and producers' goods are licensed without reference to base-year imports, the controlling factors being demand and foreign exchange availability.

Imports of goods from the dollar area are controlled by a special licensing system. In general, import licenses for dollar-area goods are issued only if the goods are essential to the economy and
are not available within a reasonable time from non-dollar areas. Occasionally, price also becomes a factor. If the difference were too great.

With few exceptions, an import license is required for imports from all sources. The license specifies the country of origin of the goods to be imported and may be used only for the specified goods from that country.

The import-licensing system is generally recognized as necessary but it has been criticized by some businessmen and economist for its unfortunate secondary effects. These critics claim that there is a tendency toward perpetuating the temporary protective effects of the restrictions by the extension of tariff protection. The established tariff policy of reasonable protection to efficient industries has been expanded to cover certain industries which have developed in the shelter of import restrictions over the past several years.

They contend also that the controls, by more stringently restricting less essential imports, have tended to encourage and protect the growth of domestic manufacture of such goods to the detriment of more essential and basic industries, with resultant distortion of the economy. Any such distortion may have tended to be perpetuated in part by the tariff policy of considering the efficiency rather than the
essentiality of an industry in determining whether tariff protection should be given.

The decision of the Commonwealth government to impose import licensing controls on nearly all goods entering Australia on or after March 8, 1952 was the result of a detailed examination of the steps necessary to correct the unfavorable position of Australia's balance of payments on the current account and prevent the further depletion of her international reserves. Only when it became clear that prompt action was required to prevent a crisis in Australia's external financial position, did the government decide to impose import restrictions.

The deterioration in Australia's balance of payments from one of great strength at the end of the financial year 1950/51 to one of weakness six months later, was primarily the result of two factors. One was the substantial decline in the value of Australia's total exports (largely due to a fall in the price of wool). The other was the large increase in the value of Australia's total imports. The value of exports had also been affected by seasonal conditions which had particularly affected the value of wheat and flour exports, Australia's second largest export item. Further, agricultural production generally had not kept pace with rising internal demand and there
had been a decline in the exportable surpluses of certain agricultural industries, notably the meat and dairying industries.

A close study had been made of the trends in Australia's overseas trade and balance of payments, and the government was aware that various influences such as the effect of its internal financial policy, the decline in purchasing power in Australia owing to the fall in the price of wool, and the large stocks of goods held in Australia, would operate to reduce the flow of imports in succeeding months. It was apparent, however, that these factors would not operate quickly enough to correct the seriousness of the position and that the drain of Australia's financial reserves, if unchecked by import controls, would gravely imperil Australia's external financial position.

Therefore, the government took remedial action to reduce the level of imports although the government realized that any long-term policy would have to aim at increasing Australia's export income. In examining ways and means of correcting Australia's difficult external financial position, consideration was not limited to import licensing restrictions. Consideration was given to the question of borrowing overseas, of encouraging overseas investment in Australia, and the development of Australia's export trade. All these were found to be impracticable as immediate measures to
reduce the drain on Australia's exchange reserves. Thus, the government decided the only solution was to reimpose import restrictions. Regulations which until then applied only to goods of dollar area and Japanese origin, were extended to cover imports from all countries.

**Export controls.** Exports are controlled for several purposes such as marketing and safeguarding the currency. Co-operative marketing of agricultural products under statutory authority, which is widespread in Australia, has led to centralized control over specified commodities moving into the export trade. Export permits for such commodities customarily are issued by the statutory marketing boards.

Wartime controls over scarce commodities were extended into the postwar period to prevent the aggravation of shortages and the frustration of development programs by the reexport of needed supplies and equipment. The list of commodities under short-supply control has been abbreviated considerably since 1952.

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7On occasions devaluation was considered but always rejected as not being practical. No consideration was given to a policy of deflation.
All exports are subject to the prior issuance of an export license which is required for exchange control purposes. In addition, an export permit must be obtained for agricultural products the marketing of which is controlled by law, as well as for specified goods in short supply.

**Exchange Control**

Exchange control is maintained in Australia over foreign exchange transactions. These include transactions involving securities. And, also, transactions made on behalf of persons living in countries outside of the Sterling Area. Exchange control is administered by the Commonwealth Bank of Australia through a centralized exchange control department and most of the various banks engaged in general banking business.

Exchange control was introduced in Australia in 1939 as an emergency wartime measure by Exchange Control Regulations issued under the National Security Act. These regulations were dropped when the National Security Act lapsed on December 31, 1946, but exchange control was continued in substantially the same form under the Banking Act of 1945, and operative from January 1, 1947.

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8 The exchange rate system is unitary, based on the par value of Australian Pound 1 = US $2.24. The rate of exchange between the Australian pound and the British pound is £A 125 = £Stg 100.
Exchange control is subdivided into three main sections, namely monetary control, control of proceeds of exports, and securities control. The general objectives of monetary control are the protection and conservation, in the national interest, of the foreign exchange resources of Australia. The Commonwealth Bank and the trading banks, which for exchange control purposes act as agents of the Commonwealth Bank, are the only authorized dealers in foreign currency.

Any international transaction or an exchange of foreign currency requires exchange control approval. The Commonwealth Bank is also empowered to fix rates of exchange between the Australian pound and other currencies and to regulate the disposal of any foreign currency over which a person in Australia has the power of sale.

Foreign currency countries are divided into two main groups—sterling and non-sterling areas. The sterling area\(^9\) comprises all parts of Commonwealth of Nations (except Canada), and includes all

\(^9\)The sterling area referred to here is not the Sterling Area of which England is a member but a geographic division used by the Australians in their exchange control regulations.
British Mandated Territories, all British Protectorates and Protected States, Iraq, Burma, and Iceland. All other countries are considered as "non-sterling" for exchange control purpose.

Sales of foreign currency are regulated according to the amount, purpose and the country in which payment is required. Transactions involving payments outside the sterling area are restricted to essential expenditure and generally are more strictly controlled than payments within the sterling area.

The importations of goods from outside the sterling area are fully controlled by the licensing system, while a partial control is also exercised over imports from sterling area countries. The sales of foreign currency to cover imports from countries outside the sterling area are not approved unless the requisite import license is obtained.

Trading banks as agents of the Commonwealth Bank are granted wide discretionary powers in approving payments for goods imported from the sterling area. Satisfactory evidence of arrival of such goods into Australia, or an undertaking to produce such evidence in due course, is required from the importer. Sanction by the Commonwealth Bank is necessary in respect of transactions unusually large in relation to past practice; transactions covering goods imported more than two years prior to the remittance in settlement; and
transactions covering payments for the importation of petroleum
products, oilfield equipment or other materials connected with the
production and distribution of oil.

A control over goods exported from Australia is maintained
to ensure that the full proceeds of such goods are taken into the Aus-
tralian banking system, and that such proceeds are received in the
currency and in the manner prescribed by the authorities.

Export of goods from Australia is prohibited unless an
export license is issued by the Minister of Trade unless the goods
are excepted from licensing. Exporters are expected to arrange
payment for the goods in the appropriate currency and to leave the
shipping documents with their bankers nominated in the export
license.

**Government Aid**

There is a trend by exporting nations generally to intensify
assistance given to exporters by the governments. In Australia
emphasis is being given to promote the export of finished products.
The emphasis is on the necessity of exporting more of the finished
product instead of the raw material and the semi-finished product.
The idea is to expand opportunities for domestic manpower and to
keep within the country a greater proportion of the final price of the
product as possible. To meet their needs the Australian's have
started extensive preparations for a big export campaign. In order to be successful in this program Australia has undertaken several measures to aid the exporter.

The Australian government has set up an export guarantee scheme so that exporters no longer have to be concerned about the risk involved in exporting. A system of low rates of interest to finance exports and production destined exclusively for export are today an important element in the fight for markets. Currently there is a limited program of this type in Australia.

The government has sponsored an extensive migration program and has financed the entry of many thousands of migrants by paying their expenses for the trip to Australia. This has provided large numbers of laborers for the expanding Australian industries.

Australia has set up a system of commercial intelligence so that Australian exporters can have up-to-date information on world markets. The government is developing effective channels of communications for placing the information collected without any delay in the hands of the people likely to be interested. There is some indication that the government will set up a bi-weekly publication giving information about world trading. Urgent information could be provided on a daily basis. The government's Trade Promotion Service is being modernized. A library is being developed where
comprehensive statistical and customs data from all countries will be available to Australian exporters at short notice.

The new Ministry of Trade was set up to concentrate on giving aid to the Australian industries in their trade activities. The Australians are participating in many foreign trade fairs and exhibitions. Plans are being made for holding an annual Australian export exhibition with world wide publicity. Foreign buying missions are being given every possible encouragement to come to Australia. A reexamination of the Australian advertisement program abroad is being undertaken. A series of market surveys are being undertaken by the new Department of Trade so that every pound spent would be spent in the best and most effective way.

The various state governments and the federal government have set up extensive research programs to give all the aid possible to the Australian industries in their drive to expand exports and cut production costs. Thus a great deal is being done on the part of the different governments to aid the primary and secondary industries in the drive to expand production and to cut costs.

Summary

Australia's tariff and other trade policies represent a combination of various objectives and principles. This is exemplified in the composition of the three-part tariff system. The growth of
secondary industries in Australia is a direct result of the tariff protection against the competition of industrialized countries. It is felt that these industries are essential to the economic well being of Australia. It is expected there will be continued tariff protection in the future for "efficient industries".

The use of exchange controls and import and export controls is to protect Australia's international reserves and to keep them from being run down. These controls are particularly strict in regard to dollar reserves. Generally these controls are used to supplement each other and this would appear to be the situation in Australia. Though, in Australia the controls are administered by different agencies. Exchange controls are administered by the Commonwealth Bank on the behalf of the Commonwealth Treasurer. The Department of Customs and Excise along with the Department of Trade administer the export-import controls. These departments will generally consult with the Commonwealth Bank and the Treasury to coordinate their activities. Frequently this coordination has not resulted in the achievement of set goals. During several of the years since 1952 the level of imports has exceeded the government's quota for that year. This has been the result of ineffective coordination. Also there are loopholes in the import licensing controls which are filled as they become apparent.
The existence of import controls has resulted in an extensive increase in direct foreign investment in Australia as a means of getting around the controls. There is the danger that these investments may not continue if the import controls were to be removed. There is little chance that the controls will be removed in the near future. The partial convertibility of the British pound has had little or no effect on the Australian pound. The Australians have no formal classification, as the British, of the accounts of nonresidents. There are very few such accounts in Australia. For those which do exist the same principle as in Britain applies.

The Australian manufacturers have taken advantage of the import controls and used them as protective devices. Whenever the import controls become more restrictive they afford more protection than the customs tariff does. Though, when the import controls are progressively removed the tariff becomes more effective as a means of protection. The result of the use of import controls and tariffs has been a constant demand on the part of Australian manufacturers for continued protection. Many industries which developed as the result of import controls have been given tariff protection. Thus, the use of import controls has tended to extend and perpetuate the use of the customs tariff in Australia.
DEVELOPMENT OF SECONDARY INDUSTRIES

Introduction

Probably the most notable characteristic of Australia's manufacturing industry is the wide variety of products which it is capable of producing. While recurring wars, isolation, dollar shortages, and other factors have prompted manufacture of most lines of consumer goods, a marked trend has emerged since World War II toward production of goods required by a complex industrial set up. The largest postwar increases in manufacturing output have been registered in heavy machinery, chemicals, fuels, lubricants, and power. Other major fields of manufacture include metals, building materials, automobiles, electrical appliances, textiles and clothing, paper, printing, food and drink, and tobacco.

Of the many industrial enterprises, iron and steel play the most crucial role in the nation's developmental plans. Expansion of the industry has been phenomenal, more than doubling in the postwar period. With requirements of ingot steel by 1962 estimated at nearly twice the present capacity, £100 million is to be spent in the next
five years on plant and equipment.\textsuperscript{1} Broken Hill Proprietary Co. Ltd. (B. H. P.) has a near monopoly in the field.

Australia's steel industry is probably the most efficient in the world. Its cost structure will permit sale abroad at competitive prices, but government policy discourages export so that domestic needs can be met. Some types of steel not manufactured in Australia are imported, and will continue to be imported. The opinion has been expressed by the government that a completely new steel industry should be built to compete with B. H. P., on the idea that export trade in this field should be developed.

The iron and steel industry has enabled Australia to develop a capital goods industry which produces automobiles, locomotives, rolling stock, aircraft and aircraft engines, farm machinery and implements, ships, and other heavy equipment.

Export of goods manufactured with Australia's cheap steel is still very modest. Probably the principal reason for this is the country's inability to engage in volume production, with its attendant economies. Some products which do not have a large market are sold abroad. For example, a recent small order of die-casting tooling

was sold in the United States, having been made at a cost 50 per cent lower than United States industry.\textsuperscript{2} Similarly, other specialized production, such as machine tools, ball bearings, and electronics equipment made in Australia are able to compete in world markets.

Other major segments of Australia's manufacturing—chemicals, textiles, paper, and food—are engaged chiefly in satisfying domestic demand. Chemicals are widely regarded as a growth industry of great promise. Superphosphates produced domestically are being used more extensively than ever before to build up soil in the sparse grazing lands. The presence of large coal beds has led to the development of petro-chemicals and industrial gases. Explosives and munitions are made by the government. The woolen textile industry is supplemented by cotton fabric production (for which cotton is imported) and a large rayon industry. Leather goods are also produced in quantity. The paper industry is also growing, in response to the shortage of foreign exchange, but still lags behind domestic requirements. Food processing is the only field in this group which contributes substantially to export income.

\textsuperscript{2}The Australian Financial Review, June 11, 1957.
Australia is making great strides in development of its hydroelectric power resources. Tasmania has the greater part of Australia's total potential, and the mountain area of Southeastern Australia nearly all the rest. Tasmanian facilities are being expanded to meet increasing demand on the part of industry in that state. On the mainland, the Snowy Mountain Hydro-Electric Authority is harnessing the rivers which rise in the Australian Alps for both electric power and irrigation. This vast project rivals TVA in scope, and will be completed in 1975.

Further development of transportation and power facilities promises well for increased efficiency of Australian industry. The big gaps in the basic commodities are crude oil, rubber, cotton, pulp and lumber. Capital goods are the chief manufactured import, this group accounting for 78 per cent of total imports.³

Because of the importance in overseas markets of Australian rural production, especially wool, it is possible to overlook the fact that the net value of Australia's factory production exceeds that of her rural production. Before World War II industrial activity in Australia had already assumed major proportions and the wartime

necessity to produce essential goods in short supply, or no longer obtainable from overseas, greatly accelerated the tempo of development. The first few postwar years saw the continuance of the tendency of domestic industry to expand to fill the vacancy, at costs which seemed well worth while at the time. Today shortages of capital goods and consumer goods are being filled. There are upwards of 50,000 factories with a labor force of about one million. (see Table 11).

The growth of secondary industry has not been achieved without tariff protection. In addition, Australian industry has in recent years benefited from the protective effects of import quota restrictions imposed in March, 1952. As these restrictions were eased in progressive stages applications to the Tariff Board grew until restrictions were reimposed in 1955.

In recent years few critics of the Australian economy have failed to refer to the high cost structure of the secondary industry, based on a 40 hour week and an average level of wages inflated by the boom in prices (particularly of wool) of 1950/51. Early in 1953 it was possible to observe a tendency for prices and therefore wages to become more stable, and the decision of the Commonwealth Arbitration Court in September, 1953, to withhold the quarterly cost of living adjustments to wages was a steadying influence on costs. However,
### TABLE 11

MANUFACTURING IN AUSTRALIA*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factories</strong> (number)</td>
<td>26,439</td>
<td>30,708</td>
<td>49,292</td>
<td>50,191</td>
</tr>
<tr>
<td><strong>Persons employed</strong> (numbers)</td>
<td>555,677</td>
<td>734,685</td>
<td>918,171</td>
<td>1,075,241</td>
</tr>
<tr>
<td><strong>Value of production</strong> (value added £'000)</td>
<td>192,008</td>
<td>338,448</td>
<td>1,049,801</td>
<td>1,319,187</td>
</tr>
<tr>
<td><strong>Value of output</strong> (£'000)</td>
<td>483,120</td>
<td>841,931</td>
<td>2,633,792</td>
<td>3,009,874</td>
</tr>
<tr>
<td><strong>Rated H.P. of engines and motors installed</strong></td>
<td>1,692,345</td>
<td>2,497,939</td>
<td>4,124,529</td>
<td>4,567,921</td>
</tr>
</tbody>
</table>

*Excluding heat, light, and power.

signs of inflationary pressures were not lacking and included demands for increased margins for skilled and semi-skilled workers. There were reports of labor shortages leading to improvised systems of "inducement" margins which tend to nullify the stabilizing influences of the decisions of the Commonwealth Arbitration Court. Also there were shortages of some materials, especially steel and building materials. These portents did not pass unnoticed and a warning was expressed by the Federal Treasurer in his budget speech of August, 1955, when he referred to "unmistakable signs that stresses were again threatening to develop in the Australian economy". Some trends in secondary production are indicated by Table 12.
<table>
<thead>
<tr>
<th>Article</th>
<th>Unit of Quantity</th>
<th>1948</th>
<th>1952</th>
<th>1956</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitric</td>
<td>Ton</td>
<td>6,361</td>
<td>7,367</td>
<td>9,544</td>
</tr>
<tr>
<td>Sulphuric</td>
<td>Ton</td>
<td>612,254</td>
<td>639,856</td>
<td>670,239</td>
</tr>
<tr>
<td>Asbestos cement</td>
<td>'000 sq yds</td>
<td>18,345</td>
<td>21,247</td>
<td>24,117</td>
</tr>
<tr>
<td>Bath heaters--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric</td>
<td>No.</td>
<td>13,313</td>
<td>28,361</td>
<td>25,618</td>
</tr>
<tr>
<td>Gas</td>
<td>No.</td>
<td>28,285</td>
<td>33,007</td>
<td>29,264</td>
</tr>
<tr>
<td>Solid fuel and oil</td>
<td>No.</td>
<td>70,007</td>
<td>73,291</td>
<td>63,679</td>
</tr>
<tr>
<td>Bricks, clay</td>
<td>No.'000</td>
<td>640,066</td>
<td>689,431</td>
<td>745,469</td>
</tr>
<tr>
<td>Cardigans, sweaters, etc.</td>
<td>Doz.</td>
<td>604,632</td>
<td>719,441</td>
<td>684,673</td>
</tr>
<tr>
<td>Cement, Portland</td>
<td>Ton</td>
<td>1,167,189</td>
<td>1,234,626</td>
<td>1,384,461</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>'000 lbs.</td>
<td>10,341</td>
<td>10,679</td>
<td>12,137</td>
</tr>
<tr>
<td>Cloth--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton</td>
<td>'000 sq yds</td>
<td>29,699</td>
<td>32,537</td>
<td>33,365</td>
</tr>
<tr>
<td>Woolen and worsted</td>
<td>'000 sq yds</td>
<td>38,028</td>
<td>38,454</td>
<td>29,790</td>
</tr>
<tr>
<td>Confectionary--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chocolate</td>
<td>'000 lbs.</td>
<td>78,742</td>
<td>69,122</td>
<td>61,276</td>
</tr>
<tr>
<td>Other</td>
<td>'000 lbs.</td>
<td>70,744</td>
<td>73,429</td>
<td>78,735</td>
</tr>
<tr>
<td>Cycles, Assembled</td>
<td>No.</td>
<td>96,282</td>
<td>112,076</td>
<td>84,931</td>
</tr>
<tr>
<td>Dynamos--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternators</td>
<td>No.</td>
<td>237</td>
<td>334</td>
<td>508</td>
</tr>
<tr>
<td>Generators</td>
<td>No.</td>
<td>9,509</td>
<td>14,134</td>
<td>16,256</td>
</tr>
<tr>
<td>Electricity</td>
<td>Mill kwh</td>
<td>9,461</td>
<td>10,503</td>
<td>12,297</td>
</tr>
<tr>
<td>Engines--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diesel (a)</td>
<td>No.</td>
<td>4,598</td>
<td>4,200</td>
<td>4,235</td>
</tr>
<tr>
<td>Petrol, marine</td>
<td>No.</td>
<td>2,470</td>
<td>2,269</td>
<td>2,112</td>
</tr>
<tr>
<td>Other (b)</td>
<td>No.</td>
<td>23,406</td>
<td>27,190</td>
<td>24,264</td>
</tr>
<tr>
<td>Floorboards--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic</td>
<td>'000 sup ft</td>
<td>71,613</td>
<td>66,997</td>
<td>78,147</td>
</tr>
<tr>
<td>Imported</td>
<td>'000 sup ft</td>
<td>11,562</td>
<td>11,548</td>
<td>9,272</td>
</tr>
</tbody>
</table>
### TABLE 12

**QUANTITY OF SOME PRINCIPAL ARTICLES PRODUCED IN FACTORIES: AUSTRALIA**

(Continued)

<table>
<thead>
<tr>
<th>Unit of Quantity</th>
<th>1948</th>
<th>1952</th>
<th>1956</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas</td>
<td>Mill cu ft</td>
<td>34,898</td>
<td>37,875</td>
</tr>
<tr>
<td>Iron and steel--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pig iron</td>
<td>Ton</td>
<td>1,087,635</td>
<td>1,313,332</td>
</tr>
<tr>
<td>Ingot steel</td>
<td>Ton</td>
<td>1,217,971</td>
<td>1,443,831</td>
</tr>
<tr>
<td>Blooms and Billets</td>
<td></td>
<td>1,103,784</td>
<td>1,297,260</td>
</tr>
<tr>
<td>Irons, electric</td>
<td>No.</td>
<td>178,283</td>
<td>232,006</td>
</tr>
<tr>
<td>Nails</td>
<td>Ton</td>
<td>18,434</td>
<td>24,752</td>
</tr>
<tr>
<td>Newsprint</td>
<td>Ton</td>
<td>30,472</td>
<td>30,697</td>
</tr>
<tr>
<td>Paint--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>'000 lbs</td>
<td>16,209</td>
<td>19,506</td>
</tr>
<tr>
<td>Oil</td>
<td>'000 gals</td>
<td>3,960</td>
<td>5,590</td>
</tr>
<tr>
<td>Refrigerators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>No.</td>
<td>5,295</td>
<td>3,901</td>
</tr>
<tr>
<td>Domestic</td>
<td>No.</td>
<td>162,341</td>
<td>203,923</td>
</tr>
<tr>
<td>Steel, structural</td>
<td>Ton</td>
<td>74,909</td>
<td>98,211</td>
</tr>
<tr>
<td>Stoves, ovens, &amp; ranges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic cooking--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid fuel</td>
<td>No.</td>
<td>61,857</td>
<td>75,010</td>
</tr>
<tr>
<td>Gas</td>
<td>No.</td>
<td>46,709</td>
<td>55,357</td>
</tr>
<tr>
<td>Electric</td>
<td>No.</td>
<td>103,048</td>
<td>116,654</td>
</tr>
<tr>
<td>Superphosphate</td>
<td>Ton</td>
<td>1,483,458</td>
<td>1,547,823</td>
</tr>
<tr>
<td>Toasters, electric</td>
<td>No.</td>
<td>175,054</td>
<td>154,574</td>
</tr>
<tr>
<td>Tobacco</td>
<td>'000 lbs</td>
<td>20,168</td>
<td>20,967</td>
</tr>
<tr>
<td>Transformers &amp; converters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above 20 KVA</td>
<td>No.</td>
<td>2,560</td>
<td>1,940</td>
</tr>
<tr>
<td>Below 20 KVA</td>
<td>No.</td>
<td>226,984</td>
<td>289,353</td>
</tr>
<tr>
<td>Tires, pneumatic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor car &amp; motor cycle</td>
<td>No.</td>
<td>1,339,072</td>
<td>1,587,201</td>
</tr>
</tbody>
</table>
TABLE 12

QUANTITY OF SOME PRINCIPAL ARTICLES

PRODUCED IN FACTORIES: AUSTRALIA

(Continued)

<table>
<thead>
<tr>
<th>Article</th>
<th>Unit of Quantity</th>
<th>1948</th>
<th>1952</th>
<th>1956</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck &amp; omnibus</td>
<td>No.</td>
<td>535,262</td>
<td>557,408</td>
<td>587,806</td>
</tr>
<tr>
<td>All Other (c)</td>
<td>No.</td>
<td>101,579</td>
<td>123,264</td>
<td>131,461</td>
</tr>
<tr>
<td>Vacuum cleaners</td>
<td>No.</td>
<td>70,604</td>
<td>70,096</td>
<td>64,065</td>
</tr>
<tr>
<td>Washing Machines</td>
<td></td>
<td>31,638</td>
<td>72,627</td>
<td>99,429</td>
</tr>
<tr>
<td>Wool tops</td>
<td>'000 lbs</td>
<td>31,475</td>
<td>29,786</td>
<td>24,815</td>
</tr>
<tr>
<td>Wool scoured--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For sale</td>
<td>'000 lbs</td>
<td>50,559</td>
<td>46,673</td>
<td>38,843</td>
</tr>
<tr>
<td>For own use</td>
<td>'000 lbs</td>
<td>40,443</td>
<td>36,259</td>
<td>30,116</td>
</tr>
<tr>
<td>On commission</td>
<td>'000 lbs</td>
<td>81,977</td>
<td>69,451</td>
<td>51,839</td>
</tr>
<tr>
<td>Yarn--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton</td>
<td>'000 lbs.</td>
<td>30,233</td>
<td>35,261</td>
<td>34,461</td>
</tr>
<tr>
<td>Woolen</td>
<td>'000 lbs</td>
<td>22,858</td>
<td>21,726</td>
<td>17,002</td>
</tr>
<tr>
<td>Worsted</td>
<td>'000 lbs</td>
<td>26,129</td>
<td>24,839</td>
<td>19,500</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>Cwt</td>
<td>239,462</td>
<td>238,690</td>
<td>223,448</td>
</tr>
<tr>
<td>Zinc oxide paste</td>
<td>Cwt</td>
<td>19,101</td>
<td>22,081</td>
<td>7,225</td>
</tr>
</tbody>
</table>

a) Other than marine.

b) Excludes motor car, motor cycle, tractor, and aero engines.

c) Except bicycle.

Survey of Industries

Current development seems to be largely concentrated on expansion of capacity for basic materials and equipment, much of it for items presently imported. Investment in consumer and durable consumer goods for the most part is directed more towards modernization than expansion.

Iron and Steel. Australian production of iron ore in 1939 was slightly below the production level in 1957 (2,571,759 tons in 1939 compared to 2,682,277 tons in 1957). The output, which was of high quality, came from South Australia (Iron Knob) and in lesser quantity from Western Australia (Yampl).

Basic pig-iron, for steel making, is produced at Newcastle and Port Kembla in New South Wales; and foundry pig-iron at Whyalla in South Australia. The only other pig-iron smelted in Australia is by the Western Australian government at its small charcoal iron works at Wundowie. Recent additions to basic plant have carried the industry's Port Kembla works to a leading place, with installed capacity capable of producing annually 1,400,000 tons of pig-iron and at present 1,300,000 tons of steel. The industry's other integrated

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5 Iron content of the ore is 60-80 per cent.
plant at Newcastle has installed capacity to produce 900,000 tons of pig-iron and 1,000,000 tons of steel a year. The present capacity of these two mills is expected to meet current demands of the domestic market. 6

In Western Australia work is in progress on the building of a steel merchant mill at Kwinana. This will carry the operations of the steel industry on the milling and processing side into that state for the first time. At Whyalla, in South Australia, there are now established a 750 ton per day capacity blast furnace, a shipbuilding yard, and an electric steel plant and foundry. Most types of special steels, except certain special alloy steels, are made in Australia, which overall remains one of the cheapest producer of steel in the world.

The most important among the industry's postwar capital works is the plate and continuous wide hot steel strip mill at Port Kembla. It has added greatly to the industry's ability to supply the domestic market with flat steel products—sheets for motor bodies and durable consumer goods such as refrigerators. The Port Kembla mill will have an annual capacity to produce 750,000 tons of strip of widths up to 66 inches. This development at Port Kembla also

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envisages, in its final stage, the installation of a modern tin-plate mill in which both hot dip and electrolytic tin-plate will be manufactured.

The integration of the steel industry in Australia may be seen in the fact that the Broken Hill Pty. Co. Ltd. has within its own organization iron ore deposits in South Australia and Western Australia; coal mines in New South Wales; limestone quarries in South Australia and sources of other refractory materials in South Australia and New South Wales; a fleet of 12 ocean-going ore-carrying vessels and a ship-building yard at Whyalla with facilities for building ships up to 20,000 tons dead weight.

Some of the present expansion projects being carried out by BHP are the completion of the wide continuous hot strip mill for production of coiled strip, and thereafter auxiliary units for the manufacture of tin-plate at Port Kembla; the increase in steel making capacity, also the screening and benefication (reduction) of iron ore to provide raw material for the new mills; the building of additional ore-carrying vessels at Whyalla; the establishment of a rolling mill plant at Kwinana, Western Australia; and the replacement of another battery of coke ovens and erection of a new merchant mill at Newcastle.

Allowing for the current programs of expansion, which are
of considerable size, there will be insufficient rolling capacity in Australia to meet the present demand for all the various categories of finished steel products. Ample supplies of plate are available and there is a significant surplus for export. Demand for gas and water piping was somewhat higher than supplies available. This situation should be corrected by the end of 1960. The demand for fencing wire netting is now being met by domestic production. Despite a great increase in production of steel posts, demand for them could not be met in full and there is no early prospect of demand being fully met from local production. It is necessary to import rails and structural sections to the extent of some 100,000 tons a year.7

**Industrial Metals, Machines and Implements.** The underlying strength of the secondary industry in Australia is a richness in mineral ores. These are smelted and rolled on a large scale into basic sheets and shapes in iron, steel, and non-ferrous metals. From then on they become the basic material of the metal manufacturing industry. Before World War II the engineering industry in Australia, with about 7,000 firms, was firmly established but since

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then the expansion has been extensive. Today the engineering industry comprises nearly 16,000 firms. Its ramifications have broadened considerably. Over one-third of the total workers employed in the secondary industries are in the engineering industries.  

In metal working machinery the industry produces presses and other machines for the working of sheet metal and plate. It does not embrace the manufacture of machine tools, food canning machinery, and welding equipment. The industry aims to supply most of the requirements for the smaller items of sheet metal working machinery used by motor body builders, canister and drum makers, kitchen utensils, and steel furniture manufacturers. In some directions capacity for production is being increased. Heavier items are usually imported as the domestic demand in that direction is limited. As in all branches of the metal manufacturing industries, skilled labor is not always readily at hand to meet plans for development.

The development of the machine tool industry in Australia was considerably stimulated by wartime and early postwar shortages. It resulted in more extensive production of lathe, grinding, boring, drilling, shaping, and milling machines. In general, domestic

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8 Survey of Manufacturing Activity in Australia, Department of Trade, April, 1957, p. 38.
manufacture is contained within the range of the smaller and less intricate machines for metal and wood working. In this range the quality of the product is high.

The production of industrial mechanical equipment such as cranes, conveyors, elevators, and hoists is an important unit within the engineering group. Exports account for about 10 per cent of domestic production.\(^9\) The manufacture of construction and excavating equipment involves the production of excavators, graders, rollers, scrapers, bulldozer blades and shovel attachments. This industry has to meet highly developed competition from imports which are estimated to meet 15 to 20 per cent of the total demand.\(^10\) with the increased tempo of building and public works, prospects for advancement in the industry appear bright assuming that the supply of skilled labor is maintained.

About thirty major firms are engaged in the production of heavy engineering equipment such as rolling mills and rolls, extrusion presses, winches and winch gear for shipping and mining, tanks and pressure vessels, coal cutters, boilers and structural steelwork, \(\ldots\)


dredging equipment, and items of capital equipment for other manufacturing industries. In lines such as the very large sizes and special types of boilers and presses there is competition from overseas, but the main concern appears to be an uncertain supply of skilled labor and structural steel.

Generally speaking, industries within the engineering group are likely to continue their important role of meeting the needs of Australia. To that end adequate supplies of raw materials, especially steel, and adequate numbers of skilled workers must be maintained. In spite of the extent of Australian achievements in the engineering field, there are considerable opportunities for further expansion.

**Electrical Machinery and Apparatus.** The Australian manufacture of electrical machinery, cables, and apparatus is well established. There are nearly 1,000 firms in the industry. The manufacture of electric transformers and control gear is undertaken by about 15 major firms. Output appears to fill a substantial proportion of Australia's needs for transformers for industrial and mining usage. Heavy duty high voltage equipment used in generating and distribution systems is mostly imported. Production of electric motors has greatly increased in recent years, particularly of fractional h.p. motors. There is at present some export trade of electric motors.
In the area of the manufacture of durable consumer goods the domestic industry is equipped to cater for the domestic demand. Production currently includes washing machines, refrigerators, vacuum cleaners, radios and radiograms, hand irons, fans, toasters, hot water jugs, food mixers, radiators and electric fires, bath heaters, kettles, and cooking stoves. High individual consumer purchasing power and an expanding population materially assisted by immigration maintains demand at a high level. Protective duties imposed on imported appliances keep the bulk of the market to goods of domestic manufacture.

Wire and cables for the electronics and radio industries; for housing, industrial uses, and power reticulation are manufactured in Australia. A recent innovation has been the manufacture of lead-covered paper-insulated power cables. Imports of special types of power cables are substantial and compete strongly with the domestic products.

Internal Combustion Engines. The local production of internal combustion engines now exceeds 25,000 units per year. Production is mainly concerned with the smaller ranges in horse power, that is,

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those in regular demand for industrial purposes. Local production is supplemented by substantial imports, particularly of diesel engines.

In quality and performance the Australian product is well regarded. Most of the output lies within the range of two to six horse power in gas and kerosene engines and almost all of the production, including Diesels, is under 50 horse power. The industry is handicapped somewhat by a high cost structure and limited output, so that competition from overseas is invariably pressing. Nevertheless, opportunities open in Australia have induced foreign manufacturers to produce engines in Australia. With increased activity in the development of the secondary industries there is a growing need for internal combustion engines. Applications to domestic uses include a variety of essential purposes such as auxiliary power plants, sheep shearing machines, cultivators, concrete mixers, fire-fighting equipment, portable conveyors, and irrigation plant.

Agricultural Machinery, Implements and Tractors. The manufacturing of agricultural machinery and implements is an important and old-established Australian industry. The industry has for many years taken care of most of the domestic requirements of implements for large scale cultivation of a diversity of agricultural products. These include ploughs, cultivators, harrows, scarifiers, harvesters,
pickup balers, mowers, hay rakes, rotary hoes, and grain seeding machines.

The main item of import is the header harvester. Competition within the domestic industry and from overseas is keen. Local costs of production have tended to rise somewhat, following the increase in costs of steel and labor, but the attention of the industry is concentrated on improvements in design and the production of new lines. Under the stimulus of import controls such foreign firms as International Harvester have greatly expanded their production facilities in Australia.

There is a limited output of medium horse power wheeled tractors for agricultural purposes. The domestic industry's efficiency is said to compare favorably with foreign manufacturers. Major requirements of agricultural and heavy duty tractors for construction work are met by imports. As long as good seasons continue there will be a constant growing demand for the products of this industry. Perhaps the most significant current event in this field is the program of two companies ultimately to produce Australian crawler tractors by progressively building up the domestic content of tractors now imported.

Motor Vehicles. At present there are nearly two million motor vehicles registered in Australia. In 1956-57 about 230,000 new
vehicles were registered. Domestic facilities provided the equivalent of at least 120,000 of these. Probably import of this equivalent would involve at least £60 million. Export of vehicles has begun on a small scale and prospects appear encouraging.12

Most of the progress in this field has been achieved in the past few years and even more progress is promised for the future. General Motors Holden is currently producing at an annual rate of about 100,000 vehicles. Ford, Chrysler, International Harvester, British Motors, Standard Motors, Rootes—all have big interests in domestic production while quite a few smaller companies are assembling in Australia and building up the domestic content of their units.13

Expansion by way of new buildings, plant, and equipment, estimated to cost more than £12 million, is progressing and in most cases running up to schedule. The expansion of Australian motor-vehicles production has had a very striking impact on an important sector of the engineering industry which products many of the components used in the vehicles of major manufacturers.

Parts suppliers are expanding capacity at a greater rate

12Ibid., p. 13.

13Survey of Manufacturing Activity in Australia, April 1958, p. 56.
than previously. Production of existing lines is being increased and new products are being progressively introduced. New capacity includes big developments in casting and forging, body-building, electrical equipment, safety-glass, and a host of other items such as shock absorbers, tools, hardware, and piston rings.

The motor vehicle industry and related suppliers will continue to expand as long as there are continued import quotas. This is particularly true of United States interests since there are presently no imports permitted from the United States.

Oil Refining and Chemicals. Currently there are five oil refineries in operation in Australia. These refineries have all been constructed since World War II. The expansion will result in Australia having a total processing capacity of eight million tons a year, and enable most of Australia's requirements of refined gas products to be met from domestic refineries.

The installation of modern refineries has enabled Australia to develop a major petro-chemicals industry. Also this development has meant a large savings on the importation of petroleum and petro-chemical products which formerly had to be imported as finished products.

13 Survey of Manufacturing Activity in Australia, April, 1958, p. 56.
To reduce the dependence on imported brimstone, Australian manufacturers of sulphuric acid have completed development projects in order to produce increased volumes of acid from indigenous materials, principally pyrites. Zinc and lead concentrates will also provide a considerable tonnage of acid and some will also be made from spent oxides. This development is being paralleled by expansion in capacity to produce superphosphate, the biggest use for Australian acid.

Production of sulphuric acid has increased from 585,000 tons in 1948/49 to about 840,000 tons in 1956/57, and of superphosphate from 1,423,000 tons to about 1,950,000 tons.14

There has been a continuous development of new plastic materials and a widening of the application of plastics in Australia in recent years. The most important recent developments have been the erection of plants to produce polyvinyl-chloride, polystyrene, and cellulose acetate. The increased usage of the various plastics moulding powders and resins to produce a wide range of plastic articles has reduced Australia's dependence on conventional materials, often imported, and reduced costs.

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14 Ibid., p. 17.
The range of chemical products is so great and the rate of expansion so pronounced that it is possible here to mention only a few. Development ranges from plants costing millions of pounds to others where the cost is measured in thousands of pounds. These plants include production of industrial gases, sodium chloride, herbicides, rubberchemicals, disinfectants, pharmaceuticals, and tallow. The Australian chemical industry has grown at a rate several times greater than the average for all manufacturing industry. Current and prospective developments suggest that this differential will at least be maintained.

Textiles, Clothing and Carpets. Although a number of expansion projects are being undertaken, the main emphasis in plans currently in the textile and clothing industries appears to be in modernization and consolidation rather than on large-scale increases in capacity. Investment is to a considerable extent taking the form of re-equipment with faster operating and/or labor-saving machines, erection of modern buildings, and reorganization of activities. This is being done to reduce costs and give more balanced production. Capacity is being increased in several cases.

In the wool textile industry investment during the past few years has been directed mainly towards cost reduction and modernization of present facilities. Capital expenditure in the cotton textile
industry recently has largely been aimed at consolidation of activities and modernization of present facilities, although some expansion of capacity has been undertaken.

The most significant development since World War II in the textile field has been the emergence of the Australian rayon industry, which produces acetate for textiles, viscose for tire cord, spun yarn, tire cord, and woven piecegoods. Current investment involves both consolidation of present activities, and some expansion of capacity in certain sections of the industry. Presently capacity in the hosiery and knitwear field is sufficient to meet the needs of the domestic market and provide an export surplus.

In recent years capacity in the Australian clothing industry has been considerably increased, partly due to the establishment of new factories including numerous small businesses set up by "New Australians" and partly through plant modernization by old-established manufacturers.

The Australian market for carpets is dependent on imports for the larger part of its requirements. Recently overseas carpet makers have displayed considerable interest in manufacture in Australia and the industry's current expansion plans involve an increase in capacity.
Processed Foods, Beverages, Cigarettes and Tobacco. The production of processed foods and beverages covers a wide range of industries. Until recently, much of the development of the food industries took place to meet growing overseas markets, while in the beverage field the emphasis was more on meeting Australian requirements.

In recent years the increased difficulties in the competitive marketing of processed foods overseas, has caused the producers of these products to begin concentrating more on the domestic market. There has been extensive foreign investment in this field recently to increase production of foods more particularly suited to the Australian market.

Considerable expansion of capacity in the milling and refining of sugar has taken place over the past few years and this expansion is continuing today. Lesser expansion of productive capacity has also taken place in the industries manufacturing ice cream and related products, confectionary, and stock foods.

Recently there has been an expansion in the brewing industry, particularly in Victoria and New South Wales. A plant for bottling Scotch whiskey has been set up in New South Wales and there has been some development in the industries bottling cordials and soft drinks.

In addition to expansion programs planned by companies already established in the industry, Australian manufacture of
tobacco products is being undertaken by a few leading overseas companies. During the past few years substantial quantities of cigarettes have been imported, principally from the United Kingdom. With the increase in capacity it is expected that Australian manufacturers will be able to meet more of the domestic demand. The main limiting factor to increased production is the shortage in Australia of American Virginia leaf. Although every effort is being made to increase supplies of Australian-grown leaf, the quantities available fall short of requirements.

**Building Materials, Pulp, Paper and other Products.** The commencement of pulp manufacture in Australia in 1939 gave impetus to a substantial expansion of the range and volume of domestically made paper and board. Capacity for production of wood pulp was increased from 80,000 tons in 1945 to about 180,000 tons a year in 1957, while that for papers and paper board has expanded from 195,000 tons in 1945 to 355,000 tons a year in 1957. Production is expected to reach 190,000 tons of wood pulp and 400,000 tons of papers and boards by 1960.15

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When the industry's present expansion program is completed most of the major types of paper and paper board required in Australia will be produced domestically. However, demand is rising rapidly and imports will still be necessary to supply the balance of demand in some papers, particularly newsprint, and boards and in special types and grades for which the Australian demand is insufficient to warrant domestic production. There has been development in capacity to produce paper and paper board cartons and containers, paper bags, etc. Considerable expansion is underway stimulated not only by growing industrial activity, but by the new uses to which such containers are being put.

The high rate of building and construction since World War II has led to greatly increased demand for cement. Productive capacity has been expanded by the enlargement of existing plants and the construction of new plants. Capacity of the industry at the end of 1957 was some 2.5 million tons a year, an increase of 75 per cent over the 1950 figure.16

Unused capacity for the production of clay bricks has existed in some states for many years and it is only recently that capacity has

16Ibid., p. 931.
been increased. The manufacture of silica lime bricks and cement bricks has added considerably to supplies.

Capacity for the production of building materials such as hardboards, softboards, windowglass, tiles, plywood, asbestos cement sheets, and ready-mixed concrete, has been greatly expanded in recent years. Australian production of abrasives is receiving attention by overseas firms and domestic capacity is being substantially increased to meet the enlarged industrial demand. This production should reduce the volume of such items now imported.

Current Developments and Problems

In the manufacturing sector of the Australian economy the continuous investment which occurred since World War II brought in the early postwar years, rapid development of the industries calling for small capital investments and which could quickly be brought into production. Those projects with the greatest ability to acquire available resources tended to progress most rapidly.

Basic industries which require large capital investment and which take a number of years to bring to the productive stage, expanded more slowly. One of the causes of this slower development in heavy industry was the then existing coal shortage. The improved coal supply and the passing of the years required to bring new industrial capacity into operation have meant that these basic industries
have more recently been able to make a much greater contribution to the development of Australia's resources. Expansion of Australia's manufacturing industry is continuing strongly but is now concentrated mainly in the basic industries.

A recent examination of current expansion in manufacturing industry reveals rapidly growing strength in basic industries and a lower rate of expansion in consumer goods industries.\(^{17}\) Projects currently underway should aid in the trend of increased efficiency and greater output per worker.

It is the opinion of the Department of National Development that the evidence of recent years indicates that greater application of capital, improved methods, better worker attitude and better material supply have markedly advanced efficiency and productivity.\(^{18}\)

Much of the new development is being undertaken by companies wholly or partly owned by foreign interests. About one-third, by value, of the manufacturing projects commenced in Australia since 1945 have been undertaken by such companies.\(^{19}\) Most of these

\(^{17}\)A review made by the Division of Industrial Development, Department of National Development, Commonwealth of Australia, 1958.

\(^{18}\)Ibid.

\(^{19}\)Ibid.
projects have been designed to produce goods previously imported. Apart from direct financial interests involving many hundreds of companies, thousands of products are being made under license from foreign companies.

The Australian manufacturing industry is entering a new and difficult phase. A representative of the Department of National Development said that...

As the economists describe it, "demand inflation" has gone, although "cost inflation" still remains to a limited extent. Business men speak of a shift from a sellers' market to a buyers' market. In plain language, the need for production at almost any cost has been replaced by the need for production at the lowest possible cost. Costs and efficiency have come to be of prime significance, and the competition of imports a matter of vital concern.²⁰

Such a situation gives a stimulus to the recurring controversy concerning the wisdom of Australia attempting to support a high level of industrialization. There is considerable speculation that the Australian government has stressed the development of secondary industries at the expense of the primary industries.

There are three basic propositions that are fundamental to any discussion about the value of Australian industrialization. One is

that the level of efficiency in Australian industry is high and has steadily risen in recent years but the benefits of increased industrial efficiency in Australia has been obscured by general inflation. Also, Australian industry has developed under moderate tariff protection. Finally there is a significant proportion (about 10 per cent) of Australian industry liable to serious import competition, though possibly rather less than a third of this group is actually affected at the present time.  

Australian manufacturing industry has shown a substantial improvement in volume of output and in technical proficiency. Australia does not yet publish an index of the volume of industrial production, but an analysis of the available statistics by the Bureau of Census and Statistics suggests that the manufacturing industry is now producing about 40 to 50 per cent more than in 1945/46. Since employment in the manufacturing industry is about 20 to 25 per cent higher than in 1945/46, the Bureau suggest that the output per worker in Australian factories had increased on the average by roughly 20 per cent by 1956.  

Most of this increase took place between 1954 and 1956. Because of the decrease in the number of hours worked,

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21 Estimates of the Department of National Development.

production per man-hour must have shown an even greater increase. The Bureau estimates that productivity in Australia is roughly on par with that in the United Kingdom, while productivity in each of these countries is considerably below that recorded in the United States.\textsuperscript{23}

However, there are some parts of Australian manufacturing industry whose competitive position with overseas goods has deteriorated despite achievements in physical production. This deterioration in Australia's competitive position has been accentuated by the change in the international market from one in which supply was inadequate and goods could be sold at almost any price, to one in which competition has become very keen. A factor which has helped to worsen Australia's competitive position is that wage rates have risen more in Australia than in competitor countries.\textsuperscript{24}

The industries which are actually or potentially vulnerable produce a variety of manufactures, but they are to be found mainly in the groups concerned with metals, machines and conveyances; with textiles and clothing. In most of these industries there are, of course, individual companies which through exceptional efficiency or some other reason are unlikely to be seriously troubled by greater imports at current prices, even though their competitors within Australia might be hard hit.

\textsuperscript{23}\textit{Ibid.}

\textsuperscript{24}\textit{Labor Report}, 1957, #46, Bureau of Census and Statistics.
Apart from the question of protection, however, the first task is to halt cost increases. Considerable success has been achieved in this regard and the prospects are encouraging for Australia. Concurrently, continued strenuous efforts to increase productivity are essential. A continued program of increased productivity energetically pursued is essential for the well-being of the manufacturing economy as a whole. For the individual manufacturer the achievement of increased productivity is in itself important, putting him in a technically strong position. In fact, high and increasing efficiency by all manufacturers is an absolute prerequisite if Australia is to overcome the present and growing difficulties and to regain a generally strong competitive position.

Government Policy

The present position of the manufacturing industry has been the result of a complex of forces of a general economic character, as well as those springing more immediately from official policies. Official government restrictive policies have eased the demand-supply position by restricting the level of demand in an attempt to fight inflation. It is expected that policies taken by the Commonwealth government, such as the increase in taxes imposed on March 14, 1956, will continue to operate in the direction of restraining demand.
Increased rates of sales tax and excise have affected demand—to what extent is difficult to ascertain as the first impact may exaggerate longer-term effects. An increase in special company taxes will tend to reduce the liquidity of some manufacturers of unnecessary commodities and restrict their ability to finance expansion and new equipment.

Import restrictions have not of themselves resulted in any substantial increase in manufacturing output. Although there was some idle capacity in Australia for many imported items in the past and this capacity is being used more fully now.

Presently the manufacturing industry is generally operating at high levels of activity and undergoing continued expansion and re-equipment, although some industries are experiencing reduced sales and are adopting a more cautious attitude to future operations. However, the underlying strength of the manufacturing industry is borne out by the fact that total employment in industries, other than those of a seasonal nature has been rising, and that factory workers seasonally changing occupations are able to find employment.\textsuperscript{25}

\textsuperscript{25}Ibid., p. 43.
Despite tighter credit, the manufacturing industry, with the aid of good profits and with recourse to public stock issues, is generally not short of finance for normal operations or for expansion, despite some reduction in bank accommodation. Greater inventory holdings have been precluded in some cases by financial considerations and a few instances have been reported of expansion being deferred because money could not be obtained. Credit conditions are having a noticeable effect indirectly through curtailment of housing construction and rural demand.

There are some indications that investment in manufacturing industry, which reached a peak in late 1955, has begun to decline. However, it is still at high levels, more particularly in industries producing basic materials and equipment, many of which are imported wholly or in part. Shortage of finance is not generally curtailing expansion to any marked degree but the restrictions of imported equipment is beginning to have an influence in some cases.

Manufacturers may make the maximum contribution to present problems by thoroughly exploring and exploiting export possibilities; by increasing capacity for basic materials and equipment; by increasing output and efficiency; and by conserving goods in short supply.

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Summary

The Australian manufacturing industry is currently undergoing an unprecedented period of expansion in a profitable and buoyant atmosphere, but it faces a number of problems.

Production costs are relatively high, owing partly to limited output, high costs of some imported raw materials, high transportation costs, and, in some cases, low productivity and frequently because of labor problems. Furthermore, since the great majority of manufactured items are produced for the protected domestic market, manufacturers, until recently, had little need to lower costs. With the growing importance of increasing exports of manufactured items, the cost problem will have to receive more attention.

Australia has a vast potential export market for secondary goods in the Pacific and South Asian areas, but this potential is as yet largely unexploited, owing to a number of factors. For example, Australia has had limited sales in these areas, and consequently sales channels are not well developed there; consumption standards are still low in all of these areas; and Australian prices have not been competitive. As these areas develop, however, Australia should be able to obtain a share of this market.

The development of the basic Australian economy also must be considered. A country whose principal foreign exchange earnings
are derived from the sale of primary products, particularly wool, is always exceptionally vulnerable to international demand for such products, and a substantial drop in returns from primary exports would have a marked deflationary effect on the Australian economy.

All of the foregoing create problems for the Australians, but they are not necessarily unique to Australia, and, to a large extent, they can be overcome with good management, as experience has demonstrated.

Australia has a major asset in its manufacturing industries which have shown a natural and inevitable development in the last 100 years. They are for the most part clearly the type of industries which could be expected to develop. They employ 28 per cent of the working population directly and a much greater percentage indirectly. They produce 33 per cent of the national income and are developing substantial export incomes. They are reducing the burden of paying for costly imports with limited overseas funds and are encouraging major foreign investment. They are continuing to grow because Australia is growing and there is a market for their products.27

DEVELOPMENT OF PRIMARY INDUSTRIES

Introduction

Farming and pastoral activities traditionally have been the mainstay of the Australian economy and they continue to be of prime importance along with the mining industry despite the upsurge of manufacturing activity since World War II. In Australia the size of the national income has always depended upon the economic conditions within the primary industries. They supply practically all the food requirements of the population. Also, through the export of primary commodities, Australia has become an important trading nation. In earning overseas currency to pay for imports, the rural industries have been at the corner-stone of economic development. Practically all import requirements have been purchased by the income from primary products.

Since World War II the Australian economy has been influenced by remarkable, unexpected, and uncontrolled changes. Over the last few years the demand for goods and services has grown as the result of an inflation of spending power following very high wool prices. Also, the policies for a mass immigration program and large development programs have added to the level of demand. The result has been that the domestic supply of goods has not increased
in proportion to aggregate demand. One of the main reasons for the inability of the Australians to increase the supply of goods was the fact that a 40 hour week was introduced soon after the war. In this regard Ian Shannon said:

The introduction of a 40 hour week soon after the war was a grave economic error for it reduced Australian productive capacity.¹

The result of this was a spiral of inflation as prices and wages went up.

Investment returns in most primary industries was declining in relation to the secondary and tertiary industries. This was due to the fact that the price of most agricultural and pastoral products (except wool) were kept at low levels on the domestic market by government controls. Export prices were fixed by contracts. Wool has been the only product where prices have kept well ahead of costs in recent years. Therefore, capital investment in many branches of rural enterprise has been insufficient to raise output in proportion to population increases.

In Australia today, all political parties are committed to full employment. There is growing domestic and foreign confidence in

¹Ian Shannon, Senior Research Fellow, Faculty of Economics and Commerce, University of Melbourne, Melbourne Herald, June 19, 1956.
investment in manufacturing which has the protection of import restrictions. Thus, an unstable economic equilibrium which depends acutely on high wool prices for continued success is in the process of developing. Unless government action is taken to reverse this trend, adjustment following a collapse in wool prices (as in 1952) is likely to be difficult, prolonged, and severe. In fact, government policy plays a major role in influencing the pattern and direction of economic growth.

If Australia had been developed under truly laissez-faire conditions—in relation to present day productive capacity—secondary enterprise would be much less advanced and the volume of primary production would be greater. The existing balance between primary and secondary industries is a more desirable blend than the alternative associated with laissez-faire. But, government policy should be carefully geared to allow both sides of the domestic economy, which complement each other, to expand together. For instance, since a policy of protection increases the profits in secondary pursuits and lowers profits in industries dependent upon

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2 This is the opinion of several observers of the Australian economy including Ian Shannon in his book Rural Industries in the Australian Economy, 1955, and Colin Clark in his book Australia's Hopes and Fears, 1958.
export prices (through increased internal costs), manufacturing will expand at the expense of rural production. Most rural industries in Australia have a greater real productivity than practically all manufacturing industries. If this were not the case there would be no need for general protection of the manufacturing industries.\(^3\)

It must be concluded at present that Australia will continue to depend upon rural products to finance overseas payments unless uranium finds are considerable and extremely valuable. In the long run, with an expanded population and a reasonable growth of manufacturing, costs may come down through larger scale production and a broader pattern of production to mitigate the dependence on imports. However, this is concerned with very long-term developments. If Australia is to achieve a largely self-supporting position in the long run, rural production must be increased at the present. Increased exports of primary products now will aid in paying for the expansion of the secondary industries.

**Importance in the Economy**

The importance of Australia's primary production today is indicated by the following discussion. There are about 135 million

sheep, which produce 300,000 tons of meat and 1.1 billion pounds of wool per annum. Only a small part of the meat is exported, but most of the wool goes overseas. Almost 10 million beef cattle produce 700,000 tons of meat annually, of which about one-fourth is exported. There are about three million dairy cows in Australia, yielding 1.2 billion gallons of milk annually. Some of the milk goes to manufacture 165,000 tons of butter and 45,000 tons of cheese, and about half of each is exported. Over 100,000 tons of eggs are produced yearly and one-quarter is exported.  

Australia produces 150 to 200 million bushels of wheat per annum from 11 to 14 million acres of land. About one-half of this is exported. Oats, maize, barley, rice, sorghum, and peas are grown, and some of each is exported. Almost one million tons of sugar are produced each year from about 400,000 acres on the eastern tropical and sub-tropical coast. About one-half is exported as sugar and in processed goods. Numerous varieties of both temperate and tropical fruits are produced, in most instances for local consumption. There is an important export trade in apples and pears, citrus fruits, dried vine fruits and wines, and fruit products such as jam and canned fruit. Production of potatoes and other vegetables is organized to supply the

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4 Land Use and Development in Australia, CSIRO, October, 1958, Passim.
home market, but a small amount of both canned and fresh vegetables is exported.  

The agricultural and pastoral production just summarized depends partly on the annual use of 1.5 million tons of artificial fertilizers. This is chiefly superphosphate. These fertilizers are applied to 28 million acres of land. Nearly half of this land is used for pasture.  

Timber is produced from Australian forests. This comes from both natural and planted sources. Production amounts to about 1.2 billion super-feet per annum. Of this about 50 million super-feet are exported. Though, the amount exported is more than counter-balanced by an importation of 300 million super-feet.  

The gross value of mining output has increased nearly six times in the past 30 years. The net value of minerals produced in 1955/56 amounted to 2.6 per cent of the gross national product. The significance of mining as a producer of exports has been out of  

5S. M. Wadham and G. L. Wood, Land Utilization in Australia, Passim.  


7Ibid., p. 741.  

8Australia's Resources and their Utilization, p. 54.
proportion to its relatively minor importance to the economy as a whole. In 1955/56, for example, total exports of ores, concentrates, and metals, including gold, amounted to eight per cent of total exports.\(^9\) Also, the minerals and metals exported in the greatest quantities have not encountered the keen competition on world markets that has plagued other Australian export items during the past few years. The current outlook appears favorable for sustaining the present export level.

In the past, fishing has been of little importance to the Australian economy, because stocks of estuarine, onshore, and demersal fishes are limited. Only recently has the exploitation of the extensive stocks of pelagic fishes and ocean shrimp become significant. Imports have supplied roughly 50 per cent of fishery products consumed. Apart from crayfish, exports have been of minor importance.

A regional analysis of Australia would indicate that the country is essentially a pastoral country. This is indicated by the predominance of animal husbandry and, even more, through the proportion of the continent devoted to grazing. Present development trends are likely to maintain or even increase the attention paid to animal industries. From the point of view of CSIRO the most

\(^9\)Ibid., p. 61.
interesting and certainly attainable improvement to make expansion possible is the increase in artificially fertilized, sown pastures. At present Australia has about 20 million acres of sown pastures. These acres are concentrated chiefly in the temperate regions in the south-east and the south-west parts of the continent.\(^{10}\)

**Agricultural Industries**

Only about one-fourth of the land area of Australia receives sufficient rainfall to support agriculture. Accordingly agriculture is confined to four areas. The most populous is a slender crescent along the entire east coast running from Cape York Peninsula in north Queensland to the coast of South Australia. Another is a triangular area on the southern tip of Western Australia. A third includes two narrow strips along the northern coast of Western Australia and the Northern Territory. Lastly, there is Tasmania. While rainfall is adequate for crops, other geographical and climatic conditions render a large part of these areas unsuited for that use. The northern coastal areas are humid and tropical and the population density is still about one person per 100 square miles. Other areas in New South Wales and Tasmania are too mountainous for farming. Also, poor soil is common in these areas, which is due both to the

\(^{10}\)S. M. Wadham and G. L. Wood, *op. cit.*, p. 43.
leaching effect of rain and erosion from past misuse. Thus, only about one per cent of the land is normally devoted to raising crops.\textsuperscript{11}

The major hope for increasing the scope of agricultural activities lies in measures to intensify the use of productive land. Irrigation projects now being undertaken by the government will greatly increase the land available for use.

The Wheat Industry. Wheat is the major crop in Australia. Production averages about 180 million bushels a year, which supplies domestic requirements and permits export of about 100 million bushels. Yields fluctuate widely with rainfall and other climatic factors, and average yield is low. (see Table 13). Wheat farming is a notably risky venture in Australia, traditionally undertaken by individuals who may spend years at a subsistence level of income before experiencing a bumper crop and good prices.

Australia's competitive advantage in wheat is her size and the inversion of the growing season from that of the Northern Hemisphere. The former enables effective use to be made of mechanization, so that labor requirements are low. The latter provides a marketing advantage overseas. Australia's principal wheat customers are the United Kingdom, India, New Zealand, and Japan.

\textsuperscript{11}Ibid., p. 17.
### TABLE 13

**AUSTRALIAN CROP PRODUCTION**

<table>
<thead>
<tr>
<th></th>
<th>Average 1947/48 to 1950/51</th>
<th>Production 1952/53</th>
<th>Production 1957/58</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area (mil acres)</td>
<td>Production (mil bush)</td>
<td>Area (mil acres)</td>
</tr>
<tr>
<td>Wheat</td>
<td>12.100</td>
<td>103.00</td>
<td>193.000</td>
</tr>
<tr>
<td>Oats</td>
<td>1.800</td>
<td>29.20</td>
<td>43.000</td>
</tr>
<tr>
<td>Barley</td>
<td>1.000</td>
<td>20.30</td>
<td>33.000</td>
</tr>
<tr>
<td>Maize</td>
<td>0.190</td>
<td>5.50</td>
<td>4.500</td>
</tr>
<tr>
<td>Grains Sorghum</td>
<td>0.100</td>
<td>2.30</td>
<td>2.400</td>
</tr>
<tr>
<td>Linseed</td>
<td>0.020</td>
<td>0.24</td>
<td>0.240</td>
</tr>
<tr>
<td>Rice</td>
<td>0.035</td>
<td>3.40</td>
<td>3.400</td>
</tr>
<tr>
<td>Cotton (raw)</td>
<td>0.006</td>
<td>0.40 (a)</td>
<td>0.400 (a)</td>
</tr>
<tr>
<td>Tobacco</td>
<td>0.005</td>
<td>3.70 (a)</td>
<td>7.000 (a)</td>
</tr>
<tr>
<td>Sugar</td>
<td>0.400</td>
<td>0.90 (b)</td>
<td>0.948 (b)</td>
</tr>
</tbody>
</table>

(a) million pounds  
(b) million tons

In the last 30 years wheat growers in Australia and other wheat exporting countries have experienced considerable fluctuations in their selling prices and have suffered through the resultant effects on incomes. In recent years the aim of policy both within Australia and in the international field has been to mitigate undesirable price movements. The success of this policy has been only partial.

The Ottawa Agreements did not give the Australian wheat growers much market monopoly in the United Kingdom since Canada was also a party to the agreement. Also, the British domestic producer was well protected against all imports through a "deficiency payment" on production and the requirement that all flour milled in the United Kingdom had to contain a certain portion of domestic wheat. This has been revised in the new Australian trade agreement with Britain. Imperial preferences seem to have been to the detriment of the wheat grower in Australia. Not only were other markets closed in retaliation, but tariffs on farm machinery from the United States and other non-Empire countries were increased.

A Wheat Stabilization Plan was introduced in 1940 in which all wheat was guaranteed at $3/10^2$ a bushel, and wheat growers were licensed annually in respect to the acreage they could

\[ \frac{3}{12} \text{ shillings and 10 pence.} \]
sow.\textsuperscript{13} The result of the crop restrictions was a fall in the area sown of over 40 per cent between 1939/40 and 1943/44.\textsuperscript{14} Much of the reduction in Australian wheat production in the early war years resulted from a short-sighted policy which, if it had persisted, could have injured the industry's productive efficiency. The Labor government in view of the forthcoming elections in 1943 sought the votes of the small farmers. Thus, in 1941 the Labor government raised the returns of the small producer and reduced the returns of the larger producer. In the 1942/43 season the grower was guaranteed 4/- a bushel for the first 3,000 bushels of his production. This put a premium on inefficiency. There was no reward to the large producer, who with optimum utilization of resources could produce at lower costs. This plan gave an incentive to the very small farmers who were producing less than 3,000 bushels to increase their high cost production to gain a maximum benefit. This increased the tendency towards continuous cropping and soil erosion. The plan was altered in 1945 when growers were guaranteed 4/3 a bushel for all wheat

\textsuperscript{13}There was a provision that half of any export returns above the guaranteed price should be paid into a fund for subsequent use when the price fell below the guaranteed level.

\textsuperscript{14}\textit{G. L. Wood, Australia Its Resources and Development}, p. 121.
grown and, with a relaxation of production restrictions combined with a lesser shortage of labor and machinery, the acreage shown increased in 1945/46 by 35 per cent over the previous year.

Wheat policy was again changed in 1948 when a five year plan placed both the domestic and overseas marketing of wheat under one central authority, the Australian Wheat Board. Under this Act the Commonwealth guaranteed a minimum price which was based on production costs. In 1951/52 the price for domestically used wheat was raised to the International Wheat Agreement Level of 16/1. Within the framework of the 1948 Act the guaranteed price was extended to wheat exports up to a maximum of 100 million bushels in any one season.15

The International Wheat Agreement has been superimposed upon this scheme. The fundamental aim of the International Wheat Agreement was to have a fairly stable price for most of the wheat sold internationally, and variations in demand and supply were to be made effective through a marginal allocation of "free" wheat to each country.16 Both the 1948 Australian Wheat Act and the International

15Ibid., p. 137.

16That such has not been effective has resulted chiefly through continued domestic policies in both importing and exporting countries which have worked against this.
Wheat Agreement of 1949 have come to an end. The wheat situation both within Australia and the international field is in a state of flux. Presently there is a new International Wheat Agreement in effect, and the recent negotiations with Britain had a good influence on the Australian wheat industry.

International stabilized prices are extremely beneficial to Australia. Not only does this type of arrangement help to mitigate undesirable fluctuations in the export income, but also it assures growers of a relatively stable forward prices for much of their output. However, in the postwar period the system in Australia has been far too complicated. There have been many different prices, and the growers have received payment in an extended series of advances spread over several years. The techniques envisaged in the International Wheat Agreement were not forthcoming and, instead of planning production to a forward price, production projects have been correlated with prices which reflected the situation approximately of the two prior seasons.

Any agreements of an international nature should be associated with domestic wheat schemes so that both plans may be coordinated. Any international scheme which gives less extreme price and income changes could give greater productive stability to the wheat industry. To guarantee this requires not only that all important importers and
exporters should be parties to any agreement, but furthermore, that guaranteed quantities should be distributed among importing countries in uniform proportion to their normal requirements and among exporters in proportion to their normal production.

Recent trends in Australian wheat production include decreased acreage, and increased yield per acre and in total production. This is the result of several things. Improved farm practices in recent years and the reversion of marginal areas to wool growing are the most important.

The Sugar Industry. Sugar is another important agricultural product in Australia. Cane sugar output has exceeded 1.2 million tons in recent years.¹⁷ (see Table 13). Most of the cane is grown on small holdings along the Queensland coast in a humid climate. The yield compares favorably with other producing areas of the world. White labor, employed because of Australia's exclusion policies, finds living conditions arduous, but the government extends major assistance to the industry in order to encourage settlement of these tropical areas. Also, the importation of sugar is prohibited. State governments buy the entire crop for resale to consumers. The surplus is

exported under quotas set by the International Sugar Agreement, with British Commonwealth countries being the principal buyers. The industry would be profitable without government support but with government support it is a well-established industry and engaged in vigorous efforts to mechanize. Recent purchases have been made of the latest United States cane harvesting equipment. The government is giving financial aid to Australian designers of similar machines to encourage improvements.

Aside from the guaranteed domestic price and the International Sugar Agreement, added elements of stability in the industry have been provided by the Commonwealth Countries Sugar Marketing Agreement concluded in 1949. This agreement managed the distribution of sugar within the Commonwealth. All of these agreements establish quotas for both exporting and importing countries and fix a price range within which transactions involving the quota amounts are conducted.

Manufacturers of products containing sugar are given a rebate on the sugar content of their exports of such products. The rebate is paid out of the proceeds of the Queensland Government's sales of sugar, and is the equivalent to the difference in the price the manufacturer actually pays for sugar used in his exported products (the domestic price) and the price he would have paid had he imported the
sugar duty free from the cheapest foreign source, or had he bought Australian sugar at the current export price, whichever price is lower. The export sugar rebate payable on fruit products during the month of July, 1957 was £14/18/- per ton on sugar content.18

Domestic consumption of sugar in Australia has continued to expand with the growth in population, reaching 499,000 tons in 1956.19 Exports also have increased to help absorb the greater output, and so far no unmanageable stocks have accumulated.

Export outlets for Australian sugar are limited by the terms of both the British Commonwealth Sugar Agreement and the International Sugar Agreement to an annual quota of 600,000 tons. Since its establishment, the sugar industry in Australia has been subject to a system of regulation of output in accordance with available markets. Acreage is controlled under farm assignments, and production of sugar is limited by the allocation of production "peaks" for each mill.

The expansion of Australian sugar production achieved in the past decade was the result of good seasons, larger acreages, improved farming methods giving higher yields of cane per acre, and until 1952, because of a growing market in the United Kingdom at satisfactory

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prices. In order to increase its supplies of sugar from sterling area countries the British in 1949 guaranteed a market for 600,000 tons of Australian sugar by 1953. In Australia after inquiry by a Royal Commission, acreages were assigned and mill peaks were raised. This was done to ensure production sufficient for domestic consumption, estimated to be 500,000 tons in 1956, and exports of 600,000 tons.

Thus, although the major portion of Australian sugar has an assured outlet, quantities produced in excess of domestic requirements and the sugar agreement quotas are virtually unmarketable. In these circumstances production is strictly limited so that stocks do not grow beyond the amount needed to offset the effects of poor seasons. Reasonably satisfactory returns are assured for about two-thirds of Australia's production of marketable sugar from the price fixed on the domestic market and from the part of the quota exported at the negotiated price. But the prosperity of the industry lies narrowly between domestic costs, which are presently tending to rise, and the trend of overseas prices, which have been falling recently. In a large measure, however, returns to Australian cane growers depend on the world market price for sugar. Recent and future events in Cuba, the world's largest producer and trader in sugar, will greatly influence future price trends.
A possible outlet for surplus cane sugar lies in industrial use. Present research in the United States has made considerable advance which may eventually help to solve, at least in part, the problem of over production for those countries dependent on cane sugar for export income.

In view of the downward trend in sugar prices all possible means of reducing costs of production are of vital importance to the industry on which the prosperity of so large a proportion of tropical Australia depends. Bulk handling, mechanical harvesting and handling, and improved varieties of cane sugar with high sugar content are some of the approaches already being followed by the Australian sugar industry in order now not to expand output, but to improve productivity in the face of rising costs and weakening prices.

The Fruit and Wine Industries. The variety of climate found in Australia permits temperate zone and tropical fruit to be produced economically. The chief problem is water, but orchards and vineyards flourish on irrigated land. Apples, the most important of such crops are exported. Citrus fruits, peaches, pears, berries, papaya, mangoes, and pineapples are also grown for domestic consumption. Vineyards produce grapes, and dried vine fruits which are significant exports. This agriculture has stimulated a food-processing
industry--canneries, wineries, and freezing plants. Exports of fresh, dried, and canned fruit rival exports of cane sugar in value, averaging about £30 million per year recently. Much of this export trade depends on a high price level abroad. Nevertheless, American food companies such as H. J. Heinz and Minute Maid have been attracted by the prospect of profitable investment in Australia. Exporters are searching for new markets in Japan, Southeast Asia, Western Europe, and Ceylon. The industry is rapidly improving quality and packaging of products. Important quantities of apples, oranges, raisins, currants, and wine are exported. (see Table 14).

Apples are grown in all of the Australian states but are exported chiefly from Tasmania and Western Australia. Export marketing is under the control of the Apple and Pear Board, and exports have averaged about 40 per cent of the output. Most of the exports go to the United Kingdom. Oranges are grown extensively throughout the coastal and irrigated areas of Australia, and are exported principally to New Zealand.

Grapes are the most important of the fruit crops. Initially they were grown on a large scale only in South Australia where the

TABLE 14

PRINCIPAL ORCHARD AND VINEYARD PRODUCTS, PREWAR AND 1951-55

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Average five years ended 1939</th>
<th>1951</th>
<th>1952</th>
<th>1953</th>
<th>1954</th>
<th>1955</th>
<th>1956</th>
</tr>
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<tbody>
<tr>
<td>Citrus fruits:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oranges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000 bushels</td>
<td></td>
<td>4,569</td>
<td>6,078</td>
<td>4,757</td>
<td>4,788</td>
<td>6,048</td>
<td>4,761</td>
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<tr>
<td>Mandrins</td>
<td></td>
<td>488</td>
<td>379</td>
<td>320</td>
<td>397</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lemons &amp; limes</td>
<td></td>
<td>583</td>
<td>826</td>
<td>781</td>
<td>700</td>
<td>725</td>
<td>609</td>
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<td>Deciduous fruit:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apples</td>
<td></td>
<td>10,485</td>
<td>9,711</td>
<td>10,743</td>
<td>9,231</td>
<td>12,469</td>
<td>11,678</td>
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<td>Apricots</td>
<td></td>
<td>1,051</td>
<td>1,309</td>
<td>1,492</td>
<td>1,265</td>
<td>1,744</td>
<td>1,544</td>
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<tr>
<td>Peaches</td>
<td></td>
<td>2,214</td>
<td>2,435</td>
<td>2,822</td>
<td>2,677</td>
<td>3,335</td>
<td>3,080</td>
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<tr>
<td>Pears</td>
<td></td>
<td>2,369</td>
<td>3,549</td>
<td>3,534</td>
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<td>4,442</td>
<td>4,708</td>
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<tr>
<td>Plantation fruit:</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Bananas</td>
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<td>2,749</td>
<td>2,244</td>
<td>3,323</td>
<td>3,745</td>
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<tr>
<td>Pineapples</td>
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<td>1,409</td>
<td>2,721</td>
<td>1,944</td>
<td>2,406</td>
<td>3,263</td>
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<td>Berries:</td>
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<tr>
<td>Raspberries</td>
<td></td>
<td>64</td>
<td>84</td>
<td>83</td>
<td>56</td>
<td>54</td>
<td>a</td>
</tr>
<tr>
<td>Strawberries</td>
<td></td>
<td>23</td>
<td>19</td>
<td>20</td>
<td>15</td>
<td>11</td>
<td>a</td>
</tr>
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</table>
### TABLE 14

**PRINCIPAL ORCHARD AND VINEYARD PRODUCTS, PREWAR AND 1951-55**  
(CONTINUED)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Average five years ended 1938</th>
<th>1951</th>
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<th>1953</th>
<th>1954</th>
<th>1955</th>
<th>1956</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Canned fruit:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Apricots</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000 cases</td>
<td>380 c</td>
<td>505</td>
<td>882</td>
<td>630</td>
<td>1,271</td>
<td>a</td>
<td></td>
</tr>
<tr>
<td><strong>Peaches</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000 cases</td>
<td>1,791 c</td>
<td>1,467</td>
<td>1,913</td>
<td>1,770</td>
<td>2,565</td>
<td>a</td>
<td></td>
</tr>
<tr>
<td><strong>Pears</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000 cases</td>
<td>860 c</td>
<td>1,105</td>
<td>1,277</td>
<td>1,262</td>
<td>1,718</td>
<td>a</td>
<td></td>
</tr>
<tr>
<td><strong>Dried fruit:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Currants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000 long tons</td>
<td>a</td>
<td>13</td>
<td>16</td>
<td>11</td>
<td>17</td>
<td>13 c</td>
<td></td>
</tr>
<tr>
<td>Sultanas (raisins, seedless)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000 long tons</td>
<td>a</td>
<td>41</td>
<td>34</td>
<td>52</td>
<td>70</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Lexias (raisins, seeded)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000 long tons</td>
<td>a</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>11</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td><strong>Wine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000 gallons</td>
<td>17,910</td>
<td>27,158</td>
<td>35,277</td>
<td>30,023</td>
<td>31,666</td>
<td>23,832</td>
<td>d</td>
</tr>
</tbody>
</table>

a) Data not available.  
b) Cases contain 2 dozen 30-ounce cans or equivalent.  
c) 1938 only.  
d) Estimated.

the wine industry developed. With the beginning of irrigation toward
the end of the past century, however, large areas were planted to
grapes for processing into raisins. The activity spread rapidly after
World War II when many ex-servicemen were settled on irrigation
projects.

The Australian Dried Fruits Association, a body of pro-
ducers formed principally for organized marketing purposes, has
been exerting pressure on the Commonwealth government to subsidize
the industry to offset foreign subsidies but so far without success. It
is generally recognized that the industry's cost structure is high,
reflecting high costs of irrigation, domestic transportation, and
packing material. In view of this, the government has decided that
additional acreages for the expansion of production in new irrigation
areas will not be allocated.

Since the industry's beginning, it has been plagued with
marketing difficulties which have been intensified since the end of bulk
purchasing by the United Kingdom government in 1954. Australian
raisins have had a specific-duty preference margin in the United
Kingdom for many years, but the protective effect has been greatly
diminished by the rise in raisin prices and otherwise has been some-
what circumvented by export subsidies granted producers of raisins
from competing sources. This has been true of several of Australia's fruit crops.

Formerly a thriving wine trade was carried out with the United Kingdom in the shelter of the tariff preferences given Australian wine. The intervening rise in wine prices which diminished the protective effect of the specific preferences and an increase in British revenue duties on wine have sharply reduced the volume of trade. Several lines of Australian wines are good, but the dwindling export market and limited domestic demand have caused the wine making industry to slump. Intensive trade promotion at home and abroad, combined with improvement in wine making techniques, appears to be required if the industry is to grow and prosper.

The Dairying Industry. The dairying industry in Australia is in a vulnerable position. The most critical factor is the industry's close dependence on a government subsidy. During 1955 the industry was confronted with three major economic developments which are having an important bearing on the development of the industry. First was the termination on June 30, 1955 of the 15 year agreement with the United Kingdom for the purchase of surplus Australian dairy products. This agreement came into being first in late 1939 following the outbreak of World War II. The British undertook to purchase all of
Australia's exportable surplus of butter and cheese. In 1945, an agreement was drawn up to cover the period until June 30, 1948, and was later extended to June 30, 1955. Under the agreement, prices were stipulated, subject to revision at any time. The importance of the British market to the Australian industry is evidenced by the fact that of the total exports during the year 1954/55, more than 87 per cent of butter and 81 per cent of cheese went to Britain. The termination of the agreement has forced Australia to compete openly on the British market with dairy producers in other countries, particularly New Zealand, Denmark, and the Netherlands. It has also removed an assured source of overseas income, thus, influencing the balance of payments on current account. In the 10 year period from 1945 to 1955 the export receipts from the sales of butter and cheese in Britain averaged £17 million. This has been reduced considerably.21

Also present is the danger that the United States may decide to unload some of its stored up dairy products, which amounted to about 105,000 tons of butter and 146,000 tons of cheese in 1955.22 This is almost twice as much butter and more than eight times the


amount of cheese Australia shipped to the British in the 12 months ended June, 1955.23

The organizations established for the control and regulation of the dairy industry and overseas trading are the Commonwealth Dairy Produce Equalization Committee and the Dairy Produce Board. They provide for the domestic and export trade among producers on an equitable basis and fix basic prices for the industry as a whole. The board took action to amend the exporting arrangements to meet the conditions existing after the cessation of the agreement. The board felt that the past system of Australia's selling of dairy products as a unit should be maintained and that the country should cooperate with other exporting countries. The board hoped to achieve stability in the sales of butter and cheese and to obtain the maximum possible price in the British market. It was hoped that the industry as a whole could be protected from the ill effects of a large fall in export receipts. The board also hoped to achieve the maximum possible returns to the producer. These agencies have had some degree of success.

23 The Dairy Situation, Bureau of Agricultural Economics, May, 1956.
With the change in world food markets to a state in which the producer finds difficulty in selling his produce, the problem of the United States and its surplus took on added significance. The initial disposal of American surpluses at prices, some equal and some less than world market prices, invoked strong protests from many countries which were exporters of farm products. In reply the United States government decided in 1956 to set up a system whereby friendly nations concerned can be consulted on the disposal of these surpluses on world markets.

Another major development in 1955 concerned the new clauses and amendments relating to the revision of GATT. An article of the original agreement states that the use of export subsidies is viewed unfavorably and that these may not in the future be used to distort the normal pattern of trade in world markets. The subsidy employed in Australia is actually an arrangement for internal stability, and it has been stated that it will not infringe the GATT amendment.

It appears that the immediate future of the industry is tinged with some degree of uncertainty. The influences of United States surpluses still remain a threat to the industry. The new position regarding GATT is a satisfactory one for Australia. The future depends upon the level of prices on the London market. Recent price
trends have shown improvement largely as the result of poor seasons in Europe. Early in 1959 an improvement in the price paid for Australia's dairy exports in the London market was due to a decline in British milk production, which left less milk available for cheese and butter making. (see Table 15 for figures on Dairy Production).

Cotton and Tobacco. Cotton and tobacco are produced principally in the subtropical coastal regions of Queensland, where conditions are favorable to the cultivation of both crops. Governmental measures have been taken to encourage the production of both, but the results have been only moderately successful. (see Table 13).

Cotton was first grown in Australia in quantity during the United States' Civil War. At that time a world scarcity of cotton encouraged the production of cotton in Australia. The return to the market of the lower priced American product after the war caused most Australian planters to abandon cotton as a major crop.

Output has since fluctuated considerably, principally because of price variations. A large proportion of total Australian output has been produced by dairy farmers, who have grown cotton to supplement their income when prices were good. They planted little or no cotton when prices were poor. Fluctuations in production have created particularly difficult problems with respect to ginning plants. These facilities were either insufficient to clean the entire crop during high
### TABLE 15

**AUSTRALIAN LIVESTOCK PRODUCTION**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Unit</th>
<th>Production Average 1947/48 to 1950/51</th>
<th>Production 1952</th>
<th>Production 1957</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butter</td>
<td>'000 tons</td>
<td>166</td>
<td>168</td>
<td>170</td>
</tr>
<tr>
<td>Cheese</td>
<td>'000 tons</td>
<td>44</td>
<td>47</td>
<td>40</td>
</tr>
<tr>
<td>Processed Milk</td>
<td>'000 tons</td>
<td>100</td>
<td>119</td>
<td>190</td>
</tr>
<tr>
<td>Total Milk</td>
<td>mil gals</td>
<td>1,207</td>
<td>1,228</td>
<td>1,350</td>
</tr>
<tr>
<td>(all purposes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef and Veal</td>
<td>'000 tons</td>
<td>600</td>
<td>675</td>
<td>672</td>
</tr>
<tr>
<td>Lamb</td>
<td>'000 tons</td>
<td>134</td>
<td>147</td>
<td>190</td>
</tr>
<tr>
<td>Mutton</td>
<td>'000 tons</td>
<td>179</td>
<td>246</td>
<td>213</td>
</tr>
<tr>
<td>Pigmeats</td>
<td>'000 tons</td>
<td>90</td>
<td>84</td>
<td>100</td>
</tr>
<tr>
<td>Eggs</td>
<td>mil doz</td>
<td>115</td>
<td>105</td>
<td>129</td>
</tr>
<tr>
<td>Wool</td>
<td>mil lbs</td>
<td>1,052</td>
<td>1,280</td>
<td>1,200</td>
</tr>
</tbody>
</table>

production seasons, or have been in excess of required capacity during low production years, resulting in very high pro rata ginning costs.

The Commonwealth government, in an effort to induce more stability in cotton output, has established a price floor and makes up the deficiency between the actual return to cotton growers and the return they would have had at the floor price. As a result, production has tended to increase recently. Cotton output continues to equal only a small fraction of domestic consumption. Production in 1956/57 was 2,819 bales (500 pounds net) compared with imports equivalent to 88,405 bales.24

Tobacco has been grown in Australia for more than 60 years. Initially it was expected to develop into an important branch of agriculture, but production has fluctuated widely and the long-term trend has been one of slow expansion. Development has been retarded by devastation caused by the blue mold disease.

Since World War II, considerable research has been done with respect to tobacco growing, curing, and marketing problems. The results have been a tendency toward an increase in output. Manufacturers of tobacco products have assisted growers by advising

on methods of tobacco cultivation and curing. They are planning on more extensive assistance in the future.

The Commonwealth government also has encouraged tobacco farming by permitting manufacturers who use a specified percentage of Australian leaf in their products to import the remainder of their requirements at concessional rates of duty.25 A grant of money is made annually from the Commonwealth government funds for research and extension work. The domestic consumption of tobacco is several times the amount grown in Australia, almost five times as much.

The Wool Industry

Wool is the major product of Australia's pastoral group of industries. The nation's wool export receipts have been exceptional in recent years. But they have not again achieved the level of 1951/52 when export receipts were in excess of $650 million. At that time it comprised two-thirds of Australia's export income and about a fifth of national income. Despite recent variations in the value of the wool clip, and other factors such as competition by other fibers, wool remains, and is expected to remain for several years, the major item of Australian production and export.

25 To qualify, during 1956/57, importers had to use 7 1/2 per cent Australian tobacco in cigarettes and 17 1/2 per cent in other tobacco products, except cigars.
Australia's achievement as a wool producer and exporter is due to a number of factors, including suitable climate and pastures, careful attention to breeding of wool-producing types of sheep, and the highly organized grading and marketing system. Australia pastures about one-sixth of the world's sheep and produces a quarter of the world's wool--over half of the world's merino wool. This position has been maintained for many years. Nearly three-quarters of Australian wool is of merino type, although there has been a slight decline in this position in recent years when crossbred wools and meat have been in strong demand. This has encouraged a swing to the meat-producing breeds. The chief wool-growing states in Australia are New South Wales, Queensland, and Victoria. Tasmania's stud flocks are of strategic importance and have produced some of the nation's finest wool.

Expansion of the industry is limited to some degree by the area of land available. Also, the production of meat and crops competes for the land. The pastures are subject to the effects of climate variations which influence carrying capacity. Sheep numbers are affected by drought, bushfires, flood, and the inroads of wild animals which prey on the sheep (dingos and wild dogs) and others which compete for the grass (especially rabbits).
Since World War II the sheep population in Australia has fluctuated between 120 million and 160 million sheep. Output has ranged between one billion and 1.5 billion pounds. The average fleece yield is more than nine pounds of wool. Active research has aided in increasing the fleece yield since the war. (see Table 15).

Progress is being made to improve pastures by sowing better seed, controlling soil erosion, providing water for ordinary needs and emergencies, and by keeping down the number of wild animals. Dog and rabbit-proof fences, poison baiting (including airplane seeding), and trapping are important controls. In recent seasons spectacular results have followed the government's campaign to kill rabbits by spreading the virus disease myxomatosis, which appears to be fatal to rabbits only, and to be spread largely by mosquitoes. Effectiveness of the campaign has varied according to weather conditions, but it has been particularly destructive in areas where there are breeding grounds for mosquitoes. The disease has been widespread in the rich Murray River Basin where pastures are so valuable and extensive. It has been estimated by CSIRO that there can be several hundred million rabbits in Australia in a normal year, and that six rabbits eat about as much grass as is required by one sheep. Thus, the campaign, combined with trapping, baiting and
fencing, is of utmost importance. There are indications that the rabbit is becoming immune to the disease in some areas.

A special marketing organization, known as Joint Organization, was set up to stabilize prices during World War II, and control the flow of wool to market to prevent surpluses from building up. The rapid disposal, within a few years following the war, of some of the million bales of wool which did accumulate, enabled the Joint Organization to be liquidated. This clearance of accumulated wool indicated the strength of demand. This was again confirmed by the sharp boom in prices of raw wool following the outbreak of hostilities in Korea in 1950. By March, 1951, prices of raw wool reached a peak, some lines bringing over 300 pence a pound weight. The average price of the 1950/51 clip was over 140 pence a pound. In the following season average values were halved, but still were high compared with the early postwar years. The 1946/47 average export price of Australian wool was about 23 pence a pound, while in the five preceding years of the war it had been 13 1/2 pence a pound.27

26There are 240 pence in a pound. The pound (Australian) is worth $2.24. Therefore a pence is worth about 9333c.

27The Wool Outlook, Bureau of Agricultural Economics, June, 1956.
The Australians currently have little trouble in selling their wool clip. The main trouble comes from price fluctuations. A small change in price can have a large effect on the total export receipts received for wool and consequently on the balance of payments. Increased wool payments tend to stimulate a demand for imports. This can be troublesome if the price does not hold up. An example of this danger was the 1951/52 to 1952/53 seasons and the resultant trade restrictions that were imposed.

Synthetic fibers have shown spectacular increases in production in recent years, and their use was extended when wool was at boom prices, and when the supply of wool was inadequate to meet current demand. However, wool has lost very little ground as a proportion of world fiber production over recent decades. Figures of 1956 show that it still constituted about one-eighth of world fine fiber production. However, in the past few years this has not held true. Also, wool is no longer holding its proportion of the total volume of fine fibers used in various types of production.

Australia has shown awareness of the competition offered to wool by synthetic substitutes. Without undue panic steps are being taken to maintain the reputation of wool and its present place in textile

\[28\text{Ibid.}\]
fiber consumption. To this end the Wool Use Promotion Act was passed in 1953. This act provides, at the request of the wool industry, an increase in the rate of the wool tax from 2/- per bale to 4/- per bale, with the possibility that it could go to a maximum of 5/- per bale. The funds collected will go to the Australian Wool Bureau to be used in a wool promotion program. This program is to be carried out in cooperation with the International Wool Secretariat.

The Wool Promotion Act of 1945 increased the activities of the Bureau to cover publicity and research and provided a government contribution to research. This indicates how early in the postwar period Australia became conscious of the increased competition.

One significant aspect of the revolution in fiber production is that its raw materials are so various and widely spread. This is one of the factors that enabled rayon to destroy the Japanese silk industry. The Australians hope to prevent the same from happening to wool. Countries seeking to reduce their dependence on imported raw materials may decide actively to foster the development of synthetic wool substitutes from their own raw materials and then by tariffs and other forms of restrictions make it difficult or impossible for wool to compete. If the world market were gradually narrowed by such means then the long-range prospects of the wool industry in Australia, and the country's export-income position, would be seriously affected.
This situation suggests that Australia cannot afford to base her own
tariff policies on too short range or narrow a view of national
interests. Australia must take into account the possible implications
of this chemical revolution for her greatest single industry and major
export.

The Meat Industry

Cattle raising has been one of the leading branches of
farming since the earliest colonial days and it shows promise of
becoming even more important in the future. Australia has one of
the few large, relatively underdeveloped areas in the world peculiarly
suited to beef-cattle production. This is the broad savannah belt
extending across the Australian Continent just south of the far-north
monsoon area. For more than 100 years, cattle raising has been the
chief industry in that region, and its persistence in spite of formidable
obstacles is an indication of the region's natural advantages. The
region is well watered during the six-month-rainy season. Occasional
droughts are troublesome. (For figures on Meat Production see
Table 15).

Transportation is the major difficulty. Only four railway
lines tap this vast country and none reaches more than five hundred
miles inland from the coast. Navigable rivers are nonexistent.
Roads are few and mostly dry-weather roads only. Air services are
good but are not yet used exclusively for transporting cattle or meat. Cattle must be driven on foot for hundreds of miles from farm to market. Often the drive takes six months or longer and cattle are poor and stringy upon arrival at markets unless they are fed at some intermediate point near a railhead or market. This has been the main reason for the lack of enthusiasm for Australian beef in foreign markets.

Efforts are now being made to improve roads to permit trucking of cattle but results thus far have been inadequate compared with total requirements. Under these circumstances, it is not surprising that cattle raising has not become a more profitable, expanding industry. Improvements in transportation alone will not revolutionize the cattle industry. There is extensive need for development of water supplies.

There is one notable development which if it proves satisfactory could do a lot to expand the industry. There has been constructed at Glenroy in the Kimberley Mountains in northern Western Australia a meat packing plant and freezing unit. Beef is killed at the plant and frozen there. Then it is flown out to Wyndham on the coast which is 180 miles away. This method requires one day to get the meat to the coast instead of the three to four weeks. Also, there is no loss of weight or loss of cattle. Under the air-beef program the
owners can kill cattle at an average age of 3 1/2 years instead of the five year olds that alone could stand the driving journey to the coast. Younger beef will mean better quality and quicker returns. The increased prosperity would enable station owners to talk in terms of immediate improvements as the result of increased incomes.

The pig industry could benefit also as the result of air transportation of beef. The pigs are being fed on the unmarketable offal from the packing house. Also, currently plans are being made for growing sorghum, millet, and other grains to be used as feed. For a long time pigs have been known to thrive in this area, but owing to the lack of transportation facilities, those brought in were let to run wild in the bush.

The long-range plans of the scheme calls for 34 production centers and airfields for handling the beef. These will be located across the north country from Derby to Cairns. By back-loading supplies for the stations in the area large savings are made by the station people and they receive better, more, and cleaner goods.

The project is currently using a new snap-freezing unit to prepare and package meat so that it can be marketed directly from outback stations to the consumer. The project's previous method was to fly out chilled carcasses to coastal freezing units for export. The new process would save about one-third on freight costs with the
removal of about 200 pounds of bone per carcass. The Australian
government is also helping by subsidizing the air-beef freight by
one pence a pound. This is to help develop the new scheme and the
export trade from Australia's far north. If the project proves to be
successful the other locations will be developed.

Another project which is being given considerable consider-
ation is the extension of rail lines from New South Wales into the
north country. It has been proposed to extend the line ending at
Bourke, New South Wales north westward into the Northern Territory.
The line would pass through Camooweal on the Queensland-Northern
Territory border and on across the Territory into northeastern
Western Australia. The rail lines in Queensland ending at Quipie,
Yaraka, Winton, and Dajarra could be extended westward to meet the
new line. This would tap a major portion of the cattle area and
connect it directly with the populus east coast. So far this is still in
the talking stage as it has been for many years.

The Mining Industry

Mining is another important branch of primary industry in
Australia. While relatively insignificant when compared to grazing
and agriculture as components of national income, its role in Aus-
tralia's export trade is far from minor. Australia has large reserves
of some minerals, but cannot be classed as rich in these resources.
from what is known about deposits. It is only in recent years, however, that Australia has begun to survey her mineral resources comprehensively, and it seems likely that advanced exploration techniques will enable the country at least to maintain its output of most minerals.

Coal, which is now the most important mineral, is found in all states. The large fields of black coal lie chiefly along the east coast in the vicinity of Sydney, and in southern Queensland. Actual and probable black coal reserves are about 14 billion tons, with production running at about 20 million tons annually. Brown coal fields are extensive in Victoria and deposits are found throughout the country. Reserves are estimated at 43 billion tons, and annual production is about 10 million tons. More intensive drilling will probably result in higher estimates of reserves.²⁹ (see Tables 16 and 17).

Coal was in short supply for several years after World War II. There was a great increase in demand by industry for power, and later by U.N. forces in Korea for fuel. Therefore, coal output was expanded to its present levels. Normally, none is available for export, and in fact output has frequently failed to satisfy domestic

²⁹Year Book of the Commonwealth of Australia, #44, 1958, Part VIII, Primary Production, p. 693.
### TABLE 16

PRODUCTION OF BLACK AND BROWN COAL
1938/39, 1945/46, AND 1950/51 TO 1954/55
(MILLIONS OF LONG TONS)

<table>
<thead>
<tr>
<th></th>
<th>Black Coal</th>
<th>Brown Coal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1938/39</td>
<td>12.6</td>
<td>3.2</td>
<td>15.8</td>
</tr>
<tr>
<td>1945/46</td>
<td>12.6</td>
<td>5.5</td>
<td>18.1</td>
</tr>
<tr>
<td>1950/51</td>
<td>16.4</td>
<td>7.3</td>
<td>23.7</td>
</tr>
<tr>
<td>1951/52</td>
<td>19.2</td>
<td>8.1</td>
<td>27.3</td>
</tr>
<tr>
<td>1952/53</td>
<td>18.5</td>
<td>8.1</td>
<td>26.6</td>
</tr>
<tr>
<td>1953/54</td>
<td>19.4</td>
<td>8.7</td>
<td>28.1</td>
</tr>
<tr>
<td>1954/55</td>
<td>19.4</td>
<td>8.7</td>
<td>29.1</td>
</tr>
</tbody>
</table>

TABLE 17

ACTUAL AND PROBABLE COAL RESERVES*

(IN MILLIONS OF LONG TONS)

<table>
<thead>
<tr>
<th>Type of Coal</th>
<th>Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthracitic and bituminous</td>
<td>14,250</td>
</tr>
<tr>
<td>Subbituminous and lignitic</td>
<td>22,550</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56,800</strong></td>
</tr>
</tbody>
</table>

* Estimates made by the Powes Survey Sectional Committee's Coal and Lignitics Panel, Standards Association of Australia.

requirements. Labor shortages have been common and labor disputes have plagued the industry. At other times transportation bottlenecks have occurred. As a consequence the coal industry has been roundly condemned by its customers as unreliable, and a large measure of government control of the industry has been introduced.

Coal represents about 40 per cent of Australia's mine production and is the traditional source of power and fuel. Other sources of power pose a threat to coal and the future of the industry is difficult to assess. On the one hand, neither oil resources nor atomic energy developments are significant, but both may materialize. On the other hand, steel making, which uses 25 per cent of coal output is expanding. Hydroelectric development and gas production use almost 50 per cent of Australia's coal. Diesel conversion on railroads, which now use the other 25 per cent, is undoubtedly cutting demand for coal. The resulting effect on freight rates may stimulate other coal-using enterprises.30

Gold continues to occupy an important place in Australia's mineral production. Periodic new discoveries of workable deposits have enabled Australia to maintain fifth place in the ranks of the world gold-producing nations. Kalgoorlie, in Western Australia, is the principal mining center. Although gold is found in every state,  

30Ibid., p. 703.
80 per cent of total output comes from Western Australia. New discoveries may be expected to sustain the industry since gold is often found under a cover of sand and the area of Western Australia has not been explored intensively. (see Table 18).

Gold is an export commodity which assures an inflow of dollars, and its significance is therefore greater than its value in pounds would indicate. Government encouragement in the form of subsidies has raised production from 844,000 fine ounces in 1950 to a current level of 1,036,000 ounces in 1958.\(^{31}\) It is refined domestically for the most part in government mints.

Australia is the second largest producer in the world of lead and zinc (after the United States). Principal deposits, which also contain silver, are located at the Broken Hill Lode in New South Wales (the largest such deposit in the world) and at Mt. Isa in Queensland. Annual production of lead and zinc together totals about 550,000 tons.\(^{32}\) Known and probable reserves exceed 25 million tons.\(^{33}\) (see Table 18).


\(^{32}\)Ibid.

\(^{33}\)Year Book of the Commonwealth of Australia, #44, 1958, Part VIII, Primary Production, p. 719.
TABLE 18

NON-FERROUS MINERAL PRODUCTION

<table>
<thead>
<tr>
<th></th>
<th>1948</th>
<th>1955</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>12,268 a</td>
<td>40,852 a</td>
</tr>
<tr>
<td>Lead</td>
<td>216,955 a</td>
<td>284,972 a</td>
</tr>
<tr>
<td>Zinc</td>
<td>190,489 a</td>
<td>254,801 a</td>
</tr>
<tr>
<td>Silver</td>
<td>11,027,500 b</td>
<td>12,283,300 b</td>
</tr>
<tr>
<td>Gold</td>
<td>884,161 b</td>
<td>1,063,457 b</td>
</tr>
<tr>
<td>Tin</td>
<td>1,559 a</td>
<td>2,375 a</td>
</tr>
<tr>
<td>Tungsten Ores and Concentrates:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wolfram (WO$_3$ content)</td>
<td>428 a</td>
<td>503 a</td>
</tr>
<tr>
<td>Scheelite (WO$_3$ content)</td>
<td>651 a</td>
<td>857 a</td>
</tr>
</tbody>
</table>

a) Long tons.
b) Fine ounces.

Lead, silver, and zinc production have all expanded since World War II. This has been accomplished by the expansion of the capacity for reducing ores to concentrates. Much of the ore is shipped to Tasmania for reduction because of the availability of hydroelectric power. By far the greater part of the output is exported with lead second only to wool as a producer of dollar income, although, the quotas imposed by the United States in the Fall of 1958 have reduced the dollar exports. These restrictions were strongly protested by the Australian government.

Iron ore deposits are also large, with known reserves of at least 275 million tons of ore averaging 60 per cent iron content or higher. Production is running about 3.5 million tons a year. 34 Principal deposits are located in South Australia in the vicinity of Adelaide at Iron Knob, and at Yampi Sound in the northwest part of Western Australia. The latter are not being intensively developed because of the high cost of transportation. Many other deposits scattered across the continent are too small and too remote to be worked under present economic conditions. (see Table 19).

The ferro-alloys, namely manganese, chromium, cobalt, nickel, molybdenum, and tungsten are found in varying quantities.

---

34 Ibid., p. 721.
TABLE 19

IRON ORE PRODUCTION

(MILLIONS OF LONG TONS)

<table>
<thead>
<tr>
<th>Year</th>
<th>Production of Iron Ore</th>
<th>Estimated Iron Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1939</td>
<td>2.56</td>
<td>1.55</td>
</tr>
<tr>
<td>1948</td>
<td>2.05</td>
<td>1.27</td>
</tr>
<tr>
<td>1949</td>
<td>1.47</td>
<td>.92</td>
</tr>
<tr>
<td>1950</td>
<td>2.36</td>
<td>1.41</td>
</tr>
<tr>
<td>1951</td>
<td>2.44</td>
<td>1.61</td>
</tr>
<tr>
<td>1952</td>
<td>2.91</td>
<td>1.88</td>
</tr>
<tr>
<td>1953</td>
<td>3.30</td>
<td>2.11</td>
</tr>
<tr>
<td>1954</td>
<td>3.50</td>
<td>2.21</td>
</tr>
</tbody>
</table>

Output of most of these minerals is for the most part consumed in Australia, although, at one time Australia led the world in molybdenum and tungsten production. Tasmania still has one of the largest known deposits of tungsten in the world.

Copper is mined in Queensland, Tasmania, and the Northern Territory, but deposits are found in all states. Most of the output is consumed in Australia. However, since domestic demand exceeds the capacity of domestic refineries, large amounts are sometimes exported for refining. Since many of the deposits are low-grade, copper mining is a marginal industry which normally cannot compete on the world market. (see Table 18).

Non-metallic minerals such as clay, mica, gypsum, salt, asbestos, and limestone are found generally in extensive deposits. Development is progressing to a point where domestic requirements will probably soon be met by domestic production. Many other minerals are found in Australia including tin, bauxite, and uranium. Recent large discoveries of uranium will earn for Australia large export incomes from the United Kingdom and the United States. Mining is an expanding industry which seems to hold great promise for Australia's future. It may be anticipated that some of the country's wastelands will come into their own economically as these resources are developed.
The one mineral missing from Australia which causes concern is oil. There has been very extensive exploration carried on in the search for oil recently. As yet oil has not been found in commercial quantities. Current activities are largely centered in Western Australia and in the Territories of Papua and New Guinea.

**Forestry**

Australia's forests of usable timer lie along the east coast, in Tasmania, and the southern tip of Western Australia. A great deal of the land area is covered with shrubs, small trees, and open woodlands, but these stands cannot be economically exploited. Eucalyptus predominates, although a species of pine growing in the mountains is highly valued for its resistance to termites. The many varieties of eucalyptus provide timber for a wide range of uses.

The forests of the southwest constitute one of the most valuable stands of hardwood trees in the world. The jarrah and karri logs from these forests are durable, easily worked, and take a good finish. Their range of use is very wide, varying from home construction to cabinet work. The trees grow to great heights and are considered a potential tourist attraction. Production is on a sustained yield basis. (see Table 20).
<table>
<thead>
<tr>
<th>Year</th>
<th>Production*</th>
<th>Exports</th>
<th>Imports#</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1938/39</td>
<td>717</td>
<td>58</td>
<td>323</td>
<td>982</td>
</tr>
<tr>
<td>1949/50</td>
<td>1,207</td>
<td>45</td>
<td>248</td>
<td>1,410</td>
</tr>
<tr>
<td>1950/51</td>
<td>1,225</td>
<td>18</td>
<td>380</td>
<td>1,587</td>
</tr>
<tr>
<td>1951/52</td>
<td>1,361</td>
<td>17</td>
<td>432</td>
<td>1,776</td>
</tr>
<tr>
<td>1952/53</td>
<td>1,242</td>
<td>36</td>
<td>117</td>
<td>1,323</td>
</tr>
<tr>
<td>1953/54</td>
<td>1,310</td>
<td>22</td>
<td>251</td>
<td>1,539</td>
</tr>
<tr>
<td>1954/55</td>
<td>1,345</td>
<td>26</td>
<td>267</td>
<td>1,586</td>
</tr>
</tbody>
</table>

* Figures for 1950/51 and later do not include sawn sleepers (RR ties)
# Includes sawn equivalent of imported logs.

The lumber industry in other forests is characterized by the small sawmill, a result of the sparseness of usable timer per acre and the cost of accumulating log supplies for sawing. Operators are not subject to sustained yield controls and the forests are rapidly being depleted through over exploitation. Another problem is fire. Most of the forested areas have a long dry season which creates fire hazards.

Lumber production is running currently in excess of 1.3 billion super-feet annually. A very small proportion is exported. For the most part the exports are hardwoods. Domestic demand currently exceeds domestic production. Therefore, imports average almost 300 million super-feet annually. This is composed mostly of softwoods not indigenous to Australia.35

Fisheries

The quantities of fish produced annually from Australian waters amounts to between 80 and 90 million pounds.36 This is not enough to satisfy the domestic demand for fresh and canned fish.


36 The take in the United States is about 50 times as much and that of Japan is 100 times as much. T. C. Roughley, Fish and Fisheries of Australia, p. 163.
There is not currently sufficient fish in the waters surrounding Australia to satisfy the domestic demand for fresh fish. Though, there is enough fish for domestic canning purposes. The Australians have shown little initiative to exploit these fish. Currently Australia imports large quantities of canned fish. (see Tables 21 and 22).

The estuarine fisheries, along with the fish that are hauled to ocean beaches, provide the major part of the fish supply of Australia. These fish include the mullet, bream, blackfish, whiting, dusky flathead, and jewfish. Of these the mullet is the most abundant, and there are more mullet marketed in Australia than any other species. In every state in Australia the estuaries have been overfished with a consequent serious decline in the fish population. If the normal fish population is to be restored, regulations will have to be introduced to reduce the amount of fishing. Also, the minimum sizes of the fish that can be marketed should be increased. It must be stressed that even if the estuarine fisheries are restored to their former level of productiveness no spectacular expansion of this branch of the fisheries can occur. The product of the estuaries will never be able to satisfy Australia's requirements for fresh fish.

Australia's demersal fisheries are exploited by the use of hand lines, or by long lines to a limited extent. The principal method of fishing is the use of trawlers or Danish seines. The principal
TABLE 21
PRODUCTION OF AUSTRALIAN FISHERIES
(MILLIONS OF POUNDS-GROSS WEIGHT)

<table>
<thead>
<tr>
<th>Year</th>
<th>Fish</th>
<th>Crayfish</th>
<th>Crabs, oysters and prawns</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1936/39 (average)</td>
<td>65.1</td>
<td>4.8</td>
<td>10.6</td>
<td>80.5</td>
</tr>
<tr>
<td>1946/49 (average)</td>
<td>77.5</td>
<td>7.9</td>
<td>9.6</td>
<td>95.0</td>
</tr>
<tr>
<td>1949/50</td>
<td>71.8</td>
<td>13.7</td>
<td>12.4</td>
<td>97.9</td>
</tr>
<tr>
<td>1950/51</td>
<td>64.0</td>
<td>14.5</td>
<td>11.9</td>
<td>90.4</td>
</tr>
<tr>
<td>1951/52</td>
<td>65.0</td>
<td>13.8</td>
<td>10.8</td>
<td>89.6</td>
</tr>
<tr>
<td>1952.53</td>
<td>73.0</td>
<td>15.7</td>
<td>12.3</td>
<td>101.0</td>
</tr>
<tr>
<td>1953/54</td>
<td>74.9</td>
<td>17.3</td>
<td>14.4</td>
<td>106.6</td>
</tr>
<tr>
<td>1954.55</td>
<td>75.1</td>
<td>18.7</td>
<td>15.8</td>
<td>109.6</td>
</tr>
</tbody>
</table>

Source: Commonwealth Fisheries Office.
### TABLE 22

AUSTRALIAN FISH IMPORTS

(MILLIONS OF POUNDS-PRODUCT WEIGHT)

<table>
<thead>
<tr>
<th></th>
<th>Fresh and frozen</th>
<th>Smoked and dried</th>
<th>Canned</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1936/39 (average)</td>
<td>9.1</td>
<td>1.0</td>
<td>29.0</td>
<td>1.7</td>
</tr>
<tr>
<td>1946/49 (average)</td>
<td>8.2</td>
<td>1.8</td>
<td>16.2</td>
<td>1.1</td>
</tr>
<tr>
<td>1949/50</td>
<td>6.6</td>
<td>7.9</td>
<td>17.5</td>
<td>1.2</td>
</tr>
<tr>
<td>1950/51</td>
<td>11.6</td>
<td>7.2</td>
<td>22.7</td>
<td>1.2</td>
</tr>
<tr>
<td>1951/52</td>
<td>16.9</td>
<td>6.3</td>
<td>23.6</td>
<td>1.5</td>
</tr>
<tr>
<td>1952/53</td>
<td>9.7</td>
<td>6.3</td>
<td>5.8</td>
<td>.9</td>
</tr>
<tr>
<td>1953/54</td>
<td>15.8</td>
<td>5.6</td>
<td>15.5</td>
<td>1.5</td>
</tr>
<tr>
<td>1954/55</td>
<td>17.1</td>
<td>5.4</td>
<td>17.6</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Source: Commonwealth Fisheries Office.
demersal fishing areas are found along the southeast coast and in the Great Australian Bight on the South coast. This industry is also coming under government regulation to prevent its deterioration. The problem of both the trawling and the Danish seine fisheries is that of conservation. Therefore, no expansion of these industries can be expected. The only new trawling grounds that may be exploited are to be found off the northwest coast. Though, it is felt that these grounds are too far removed from the capital cities to be competitive.

The pelagic fishery is in a very different category. It is an almost untouched resource of the Australian coast. These fish comprise such valuable species as the pilchard or sardine, anchovy, mackerel, salmon, barracuda, and tuna. All of these are imported into Australia as canned fish in large quantities.

There have recently been noteworthy developments in the tuna fishery, and the prospects are bright for a great expansion of this branch of the fisheries. In October of 1950 an American tuna clipper, which had been working in the Fiji area for the United States government, went to Australia and proved that bait fishing using poles would be effective. The important finding was that there was sufficient live bait that could be caught and held in bait tanks. Also, that the southern bluefin tuna would take bait and could be easily caught.
There is a good future for tuna fishing in Australian waters. The southern bluefin occurs in large quantities not only on the south coast of New South Wales; but also along the east coast of Tasmania, off the coast of South Australia and on the south coast of Western Australia. There are other valuable tunas that could figure in the commercial fisheries. Among these are the northern bluefin (with a range round the northern half of Australia from New South Wales to Western Australia), the albacore, the yellowfin, and the bonita.

It should be noted that these pelagic fish are essentially canning fish with the exception of the barracuda and the salmon. The major improvement this fishery will create is to save on import expenditures. The value of imported canned fish is almost equal to the value of all the fish caught in Australia.

**Government Policy**

The policy of the Commonwealth government is to encourage the improvement of agricultural and pastoral production and to aid in the search for new sources of minerals. The government wants to stimulate the steady expansion of production to keep pace with population growth and the need to expand exports. With few exceptions the primary industries have thrived without government protection. Protection given to a few branches of agriculture such as sugar, tobacco, and cotton, has been intended to stimulate the settlement
and development of areas producing these products. A few other products, such as flax, have been protected because of their importance to defense. Still others, such as dairy products, are subsidized and/or protected by the tariff to provide a reasonable level of income for producers.

Both Commonwealth and state governments in a more general sense, however, have undertaken in a number of ways to stimulate and assist the development of the primary industries. Each of the governments has an active Department of Agriculture and a Bureau of Mines which cooperate with other governmental agencies to carry out extensive research programs. They try to persuade primary producers to put to practical use the improvements and techniques developed by research.

The state governments have undertaken extensive irrigation projects which have greatly increased the productivity of low-rainfall areas and give promise of similarly increasing the productivity of additional large areas of land in the near future. Particularly after the Snowy River Project is completed. Tax concessions have been enacted to encourage primary pursuits in general and rural landholdings in particular. One of the prime objectives of the immigration program is to offset in part the decrease in the labor force in primary production as the result of the general shift in population from country to city.
Government intervention in marketing for the purpose of avoiding violent fluctuations in primary income has been undertaken on a large scale. "Orderly marketing", to use the Australian terminology, grew out of the international competition for export markets in the 1920's and the 1930's. This was adopted to coordinate and centralize efforts to sell Australian foodstuffs and raw materials abroad in the greatest possible quantity and at the best possible price. Wool producers, though, have been satisfied with the excellent private arrangements for marketing their product and have rejected all proposals for government intervention.

The establishment of marketing boards has led to other arrangements designed to maximize the security of farmers' incomes. One of the devices has been the establishment of a two-price system whereby prices on the domestic market often are higher than prices received for exports. Sugar, dairy products, eggs, and certain fruits are covered by the two-price system.

Another device is the stabilization system, whereby a small percentage of the sale price of a given commodity is deducted by the marketing authority, placed in a reserve fund, and paid out to producers when prices fall below a specific minimum. The purpose of this system is to raise the producers' income during lean years.

The orderly marketing system has been severely criticized by exporters of products brought under government control and by
organizations of consumers opposed to the umbrella over domestic prices which these marketing arrangements provide. Their insistence that the authorities cease to intervene in marketing has had no tangible results, principally because the majority of producers have shown clearly that they favor the system and desire its continuance.

Summary

In general, the outlook for primary production in Australia is favorable. Primary production can be increased considerably in the foreseeable future. The domestic market for primary products is expanding with the growth of the population and the industries consuming such products. Therefore, production has to be increased enough to meet the expanding domestic demand and export surplus requirements. The profitability of primary production since World War II has enabled primary producers to make substantial investments in improvements to their holdings. Irrigation has expanded considerably and is in the process of further expansion. Also, there is extensive work being carried on to develop water supplies for the inland. This will open up some of the areas now closed to primary production. Means have been found to reduce the depredations of rabbits on grazing lands, enabling producers to invest profitably in capital improvements and to increase numbers of livestock.
The imponderable element in the outlook for primary production is the future status of the export market which absorbs a large part of total Australian production. The competitive position, pricewise and qualitywise, of wool, meat, and several other important export items appears likely to be favorable for some time. Difficulties have been encountered in overseas marketing of certain products such as dairy products and dried fruits. Both the government and the producers are studying means of reducing the costs of producing these products and of otherwise improving their competitive position in export markets. The government is actively searching for new markets and also seeking agreements in present markets to ensure sales. The future of Australia's mineral output looks very favorable, especially for increasing exports.
Introduction

Although the Australian economic system is basically a private enterprise system, government enterprise and controls are prominent in certain lines of activity. Statutory boards market or control the marketing of a wide variety of primary products. In public utilities, government or quasi-government corporations play a leading role. The state governments are engaged in more business-type enterprises than the Commonwealth government, but in most instances on a much smaller scale.

Government enterprise in Australia has been created either to assist development or to exercise a measure of control over private enterprises by directly competing with them. Consequently, the public considers that the government primarily should provide a number of the services and public utilities necessary for economic growth and that private enterprise drawing on these government-supplied services should engage primarily in agricultural and pastoral activities, manufacturing, trade and commerce, and finance.

The establishment for control purposes of government enterprises directly competing with private enterprise has been in part an outgrowth of the constitutional impediment to the exercise of
regulation or control over interstate commerce by either the state governments or the Commonwealth government. Moreover, the Australian Constitution provides an effective safeguard against the nationalization of private business having interstate connections. The provision in section 92 that interstate commerce shall be absolutely free has been interpreted by the courts to mean that nationalization of a business having interstate ramifications would infringe the freedom of commerce and therefore is unconstitutional.

Commonwealth-State Government Relations

Loan Council. A financial agreement was arrived at between the Commonwealth and state governments in 1927 to prevent competition between them in domestic and foreign loan markets, to consolidate the public debt, and to define the basis on which sinking fund payments should be made in respect to Commonwealth and state debt. To give effect to the agreement it was necessary to confer additional powers on the Commonwealth by way of an amendment to the Constitution.

In order to regulate borrowing, the agreement provided for the establishment of the Australian Loan Council which consists of representatives of the Commonwealth and of each state. The Commonwealth representative has two votes together with a casting vote, as chairman, and each state representative has one vote. The Commonwealth and the states submit to the Loan Council their
borrowing programs for each financial year and the Loan Council decides the total amount which it considers can be borrowed on reasonable terms and on reasonable conditions. Revenue deficits to be funded must be included in the borrowing program but borrowing for "temporary purposes" need not be included. Borrowing by the Commonwealth for defense purposes is outside the agreement.

The total amount to be borrowed in any year will be decided by the Loan Council by a majority vote. The allocation of the total amount between the Commonwealth and the states requires a unanimous decision of the Loan Council, or, alternatively, recourse to a formula which was written into the agreement. Recourse to this formula has not yet been necessary. Subject to minor exceptions, the Commonwealth arranges all governmental borrowing, but the terms of the individual issues are submitted to the Loan Council for approval.

During the early postwar years no difficulty was experienced in financing the Loan Council borrowing programs. During that period the Commonwealth, as part of its general budget policy, financed virtually the whole of its own capital works expenditures from revenue. The state governments relied mainly on loan moneys to finance their works expenditure during this period. The volume of works which could be carried out was limited by the shortage of manpower and materials which then prevailed. It was these shortages rather than a
shortage of finance which were the main factors limiting the Loan Council programs during the postwar period up to 1950/51.

After 1950/51 difficult financial problems began to emerge. On one hand, the states' works programs for which loan finance was sought began to attain extremely large proportions. On the other hand, with the onset of inflation, the Australian loan market was weakening. Despite the use of surplus loan moneys received in earlier years, the total loan moneys available in 1950/51 fell short of the total borrowing program approved by the Loan Council for that year.

In spite of rises in the bond rate the Australian loan market became progressively weaker. At the same time the need for loan funds increased rather than abated, particularly as many governmental authorities had entered into substantial forward commitments for equipment and materials for their works programs. In order to avoid serious disruptions of the state governments' works and housing programs, the Commonwealth took the unprecedented step of supplementing from its own resources the supply of loan funds available to the states. The manner in which the Loan Council borrowing programs were financed in this period is shown in Table 23.
### TABLE 23

**SOURCES OF FINANCE OF LOAN COUNCIL BORROWING PROGRAMS**

1949/50 TO 1954/55

(*$M$ MILLION*)

<table>
<thead>
<tr>
<th>Year</th>
<th>Public Loan Raisings (Australian)</th>
<th>State Domestic Raisings</th>
<th>Special Commonwealth Assistance</th>
<th>Total Raisings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1949/50</td>
<td>89.0</td>
<td>3.1</td>
<td>---</td>
<td>92.1</td>
</tr>
<tr>
<td>1950/51</td>
<td>151.7 a</td>
<td>9.3</td>
<td>---</td>
<td>161.1</td>
</tr>
<tr>
<td>1951/52</td>
<td>67.2</td>
<td>7.0</td>
<td>152.9</td>
<td>222.1</td>
</tr>
<tr>
<td>1952/53</td>
<td>51.2</td>
<td>6.6</td>
<td>131.5</td>
<td>190.2</td>
</tr>
<tr>
<td>1953/54</td>
<td>118.2</td>
<td>7.5</td>
<td>74.3</td>
<td>200.0</td>
</tr>
<tr>
<td>1954/55</td>
<td>127.4</td>
<td>8.1</td>
<td>44.5</td>
<td>180.0</td>
</tr>
</tbody>
</table>

a) Includes excess subscriptions of $25 million to loans raised in previous years.

Source: Budget Statement, August 24, 1956, by the Commonwealth Treasurer.
The provisions of the financial agreement do not cover loans raised by semi-government and local-government bodies which, under state law, have power to borrow. The states have, however, entered into a "gentlemen's agreement" under which the total borrowing program of these authorities in each state is submitted for loan council approval while the terms and conditions of the larger loan are being determined in consultation with members of the Loan Council.

**Tax Reimbursement Grants.** During World War II the high rates of income taxation required by the Commonwealth government for defense purposes involved some anomalies, because the states also levied substantial income taxes. The fact that the latter were at varying rates, while the Commonwealth was constitutionally bound not to discriminate in tax rates between residents of different states, meant that the Commonwealth income tax rates were limited by the highest of the state rates. This, however, implied relatively lower rates of aggregate Commonwealth plus state income tax on residents whose own state rates were low. In order to raise maximum revenue from income tax, and impose an equal burden on all citizens, a scheme of uniform taxation was imposed by the Commonwealth in 1942 (despite the protests of some states). Under this scheme the Commonwealth levied one income tax on all income earners throughout
Australia and paid the states tax reimbursement grants based upon collections of state income tax in 1939/40 and 1940/41.

After the war the Commonwealth government decided to continue uniform taxation of income indefinitely and to revise the basis on which tax reimbursement grants were paid to the states. New legislation introduced in 1946 provided that the states were to be paid £40 million in 1946/47 and 1947/48 and that the payments thereafter were to be determined by varying this base amount of £40 million in accordance with a formula that took account of variations in the states' populations and increases, if any, in the level of average wages. The payment to the states of 1947/48 and the base amount were subsequently increased to £45 million. The distribution of the grants among the states is determined by a formula based upon an arbitrary distribution agreed to by the states in 1946 and upon the population of the states adjusted for density and number of children between five and 15 years of age. In 1957/58 and thereafter the whole grant has been distributed among the states in proportion to their adjusted population.

In each year since 1949/50 payments have been made to the states to supplement the grants determined by the formula. The amount of the aggregate tax reimbursement grant is considered each year at a meeting of the Commonwealth Prime Minister and the state
Premiers. This meeting is usually held in conjunction with meetings of the Loan Council. Such meetings are called Premiers' Conferences.

**Government Budget--Fiscal Policy**

The Commonwealth budget consists of the consolidated revenue fund, the loan fund, and the trust fund. Prior to 1942 both the Commonwealth and state governments levied their own income taxes. Now that the Commonwealth is the sole income taxing authority it pays to the states a portion of the taxes collected out of the consolidated revenue fund. Commonwealth grants to the states include grants for assistance, general revenue grants, and grants for special purposes. General revenue grants include the tax reimbursement grants. These grants can be supplemented by special financial assistance grants for special purposes.

The loan account of the Commonwealth budget in recent years has been used almost wholly to finance the public-works and housing programs of the states. Loans in the form of inscribed stock and occasionally in the form of bonds are raised in Australia principally by public subscription. Commonwealth securities are quoted regularly on the various stock exchanges in Australia. Open-market operations by the Treasury are not a feature of governmental efforts to stabilize the economy as they are in the United States by the Federal Reserve's
Open Market Committee. This is because the Australian security market is not sufficiently large for open-market operations to have much stabilizing effect. Also, the government desires to obtain a maximum of loan funds for public works. However, during certain periods when the market for government securities has appeared to be weakening, the National Debt Commission and the Commonwealth Bank have purchased securities to support their quoted market price.

The trust account of the national budget shows in separate sections the movement in moneys held on behalf of persons or organizations other than government agencies, and the movement in Commonwealth government funds advanced on working account to government instrumentalities or held in reserve for future expenditure. Consolidated revenue surpluses in recent years have been placed to redeem Treasury bills and to subscribe to Commonwealth loans. Working advances to government instrumentalities are managed by the agency concerned. The Treasury, however, is responsible for investment of all trust-fund accumulations, except certain trust funds which are managed and invested by semi-autonomous boards or commissions. These special funds include the national debt sinking fund, superannuation fund, defense forces retirement fund, and parliamentary retirement fund.
The Commonwealth government's budgetary policy under all administrations has had as its objectives the encouragement of economic growth and prosperity and the maintenance of stability. In postwar years, the budget has also been used as an instrument for increasing employment and for expanding social services. Specific aspects of budgetary policy, such as the issuance or retirement of Treasury bills, have been dictated by the economic circumstances of the time. During the period of economic recession in 1952/53, for example, the Treasury bill issue was increased by $72 million, which had the effect of stimulating the economy mildly. In 1953/54, however, a $35 million reduction was made in the issue as a mild brake on economic activity.¹

Currency and Banking Policy

The Australian banking system is a central-banking system headed by the Commonwealth Bank. The Banking Act of 1945 and the Commonwealth Bank Act of 1945 vested in the Commonwealth Bank all of the customary functions of a central bank, including the issuance of notes, banking for the government, management of the banking reserve requirements and foreign exchange reserves, service as a

¹ Statement by the Prime Minister in the House of Representa­tives, on Tuesday, September 27, 1955.
clearing house for commercial banks, regulation of commercial credit, and generally supervision of commercial banking operations.\textsuperscript{2}

In addition, the Commonwealth Bank is the sole purchaser of gold produced in Australia.

The Banking Act of 1945, enacted by a Labor Government, not only confirmed the central-banking powers wielded by the Commonwealth Bank under wartime regulations but gave the Bank a mandate to compete actively with commercial banks for general banking business. Subsequently, in 1947, legislation was passed nationalizing all of the commercial banks. This legislation was held to be unconstitutional by the High Court and the finding was upheld by the Privy Council.

When the present Liberal-Country Party Government came to power, it was publicly committed to amend the existing banking legislation to give protection to the commercial banks. Amendments were enacted in 1951 and 1953, removing control of the Bank from the governor exclusively and restoring control to a board. Also, the

\textsuperscript{2}The Commonwealth Bank was established in 1913 as a general bank, savings bank, and clearing house. It acquired note-issue functions in 1920 and remaining central-banking functions during World War II by national defense regulations, confirmed by law in 1945. The bank is managed by a board consisting of a governor, a deputy governor, the Secretary to the Treasury, and seven other members, of whom at least five must be persons who are not officers of the Bank or government officials.
sweeping powers of the Bank to call up reserves from the commercial banks were altered. Organizationally the Bank was separated from its former general banking division. This division was created into the Commonwealth Trading Bank, which is designed to compete on an equal footing with the privately owned banks.

Legislation passed in June, 1959 and to go into effect later this year provides that the Central Bank shall be separated from the present Commonwealth group of banking institutions and that it along with the Rural Credit Department of the Commonwealth Bank shall become the Reserve Bank of Australia. The Reserve Bank will function only as a central bank and will not be responsible for the administration of the retail banking business carried on by the Commonwealth Trading Bank of Australia, the Commonwealth Savings Bank of Australia, the Mortgage Bank, and the Industrial Finance Department of the Commonwealth Bank. The legislation also establishes a Commonwealth Banking Corporation, under a new board with a separate staff, to be responsible for the administration of the Commonwealth Trading Bank, the Commonwealth Savings Bank, and a new institution to be called the Commonwealth Development Bank. The Commonwealth Development Bank will be, basically, an amalgamation of the former Mortgage Bank and the Industrial Finance Department of the Commonwealth Bank. The new bank will have an
increase in resources and a charter enabling it to assist the development of worthwhile enterprise in both primary and secondary industry which were unable to obtain elsewhere the necessary financing on reasonable and suitable terms. Under the new legislation the present Special Accounts System will be replaced by a system of statutory reserve deposits.

In previous periods of strong inflation the Central Bank made formal use of its full counter-inflationary powers. Formal bank-credit controls were gradually relaxed and eventually terminated as recessions developed. Also, bank reserve requirements could be changed to suit the situation. In a recession this would assist the banks in overcoming the shrinkage of their credit base as the result of the depletion of foreign exchange reserves which generally accompanied recessions in this postwar period.

The Central Bank could require a commercial bank to hold large proportions of its assets as various types of reserves. For example, by the end of 1953/54, when inflation was threatening, the Central Bank suggested that the commercial banks hold approximately 25 per cent of their assets in quickly realizable form such as government bonds. Another 25 per cent of the commercial banks' assets
were held in the Special Accounts, leaving about 50 per cent against which to lend. Early in 1955/56 the Central Bank went further in requesting that the commercial banks not expand their advances to instalment-purchase finance companies, whose volume of business in the previous year had been so great that inflationary effects were feared.

The Central Bank has scope within its sphere for acting to preserve the stability of the currency, but this action can be nullified or seriously impeded if other instruments of economic policy are pursuing inconsistent objectives. In total, Australia's postwar monetary policy has not been highly successful. The task of preventing inflation has been beyond the scope of monetary policy alone. The amount and persistence of government expenditure on social services

3Under the provisions relating to Special Accounts, the Central Bank could call upon the trading bank to deposit with it the whole or any part of the increase in their assets. In effect, these provisions give to the Central Bank the power to impose variable standards of liquidity only to the extent to which total assets has increased. They have a good deal in common with the reserve requirement powers exercised by Central Banks in other countries, but the greater flexibility of Special Accounts is a special advantage to a country such as Australia, which is subject to wide fluctuations in its balance of payments and, therefore, in the level of bank deposits and liquid assets.
and capital works and on an expanded bureaucracy have greatly complicated the responsibility of monetary authorities.

Use of the Special Account System has steadied purely banking reactions to the factors affecting the money supply. The greatest weakness of the Central Bank's use of Special Accounts has been its reluctance to give a lead to the bond market on occasions, and its failure to support its own banking measures by establishing a wider flexibility of interest rates. Responsibility in this respect probably has to be shared with the Treasury and the government. Monetary policy failed to curb the hire-purchase boom in 1950/51 and 1955/56 which added to the uncertainties of inflation. (see Table 24).

Authorities in Australia have sought for some time to discount any useful results that could come from a flexible interest rate policy in the control of inflation. This has been one of the main weaknesses of monetary policy in Australia. Interest rate changes as an instrument of monetary policy are in danger of being robbed of their effectiveness. The monetary authorities seem to have an obsessional fear that

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4Interest rates were reduced in Australia during World War II and were maintained at a low level in spite of a considerable rise in the price level. It was only when the government stopped supporting the loan market in 1951, and made a really determined effort to stop further inflationary price rises, that interest rates rose from their abnormally low level. The interest rates had been kept at low levels by government monetary policy.
TABLE 24
MONEY IN CIRCULATION, 1945-1955
(APART FROM TOKEN COINS)

<table>
<thead>
<tr>
<th>Year</th>
<th>Australian notes in circulation among the public (not in banks)</th>
<th>Demand deposits. Non-interest-bearing deposits of all check-paying banks.*</th>
<th>Total money in circulation apart from token coins.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\text{Lm}$</td>
<td>$\text{Lm}$</td>
<td>$\text{Lm}$</td>
</tr>
<tr>
<td>1945</td>
<td>172.0</td>
<td>422.8</td>
<td>594.8</td>
</tr>
<tr>
<td>1946</td>
<td>180.1</td>
<td>459.7</td>
<td>639.8</td>
</tr>
<tr>
<td>1947</td>
<td>179.7</td>
<td>498.1</td>
<td>677.8</td>
</tr>
<tr>
<td>1948</td>
<td>173.8</td>
<td>576.7</td>
<td>750.5</td>
</tr>
<tr>
<td>1949</td>
<td>186.5</td>
<td>692.6</td>
<td>879.1</td>
</tr>
<tr>
<td>1950</td>
<td>203.6</td>
<td>881.8</td>
<td>1,085.4</td>
</tr>
<tr>
<td>1951</td>
<td>239.5</td>
<td>1,109.3</td>
<td>1,348.8</td>
</tr>
<tr>
<td>1952</td>
<td>268.3</td>
<td>1,051.9</td>
<td>1,320.2</td>
</tr>
<tr>
<td>1953</td>
<td>292.3</td>
<td>1,152.0</td>
<td>1,444.3</td>
</tr>
<tr>
<td>1954</td>
<td>305.6</td>
<td>1,246.9</td>
<td>1,552.5</td>
</tr>
<tr>
<td>1955</td>
<td>311.9</td>
<td>1,469.9</td>
<td>1,781.8</td>
</tr>
</tbody>
</table>

* Deposits of other banks in the Commonwealth Bank, being really bank reserves, are not included here. In the published statistics they are included in balances due to other banks.

Source: J. K. Gifford et. al., Australian Banking, p. 83.
the banks may make additional profit if interest rates are increased. (see Table 25).

It is not easy to assess the true contribution that monetary policy has made to the Australian economy since World War II. The effectiveness of monetary policy can be judged only in the light of the conflicting pressures imposed on the monetary authorities either by the external circumstances of the economy like the balance of payments, or by other aspects and objectives of economic policy. Basically, the postwar problem has been a problem of inflation common not only to Australia but also in varying degrees to the rest of the world as recovery has given way to a phase of economic growth.

In Australia the general problem has been accentuated by a particular policy of intensive national development and expansion. The Australians have deliberately taken the risk of inflation for the sake of getting ahead. They are perhaps taking too many risks, and not all of the gamble has paid off. In regard to this R. F. Holder said "I consider that we are not as well off as we should be after the opportunities of the last decade". But the responsibility must be shared by the

---

5 In a speech given to the Economic Society Winter School, Sydney, August 28, 1956. Mr. Holder is the economist to the Bank of New South Wales.
<table>
<thead>
<tr>
<th>Date</th>
<th>Treasury Bills</th>
<th>General Overdraft (a)</th>
<th>Banking Division Fixed Deposits</th>
<th>Rural Credits Department (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 Mos</td>
<td>6 Mos</td>
</tr>
<tr>
<td>Jan '13</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Jan '24</td>
<td>6-1/2</td>
<td>4</td>
<td>4</td>
<td>1/2</td>
</tr>
<tr>
<td>Jan '25</td>
<td>7</td>
<td>4</td>
<td>4</td>
<td>1/2</td>
</tr>
<tr>
<td>Jul '25</td>
<td>6-1/2</td>
<td>4</td>
<td>4</td>
<td>1/2</td>
</tr>
<tr>
<td>Jul '31</td>
<td>4</td>
<td>5-1/2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Jul '32</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>1/2</td>
</tr>
<tr>
<td>Jan '33</td>
<td>3-1/4</td>
<td>4-3/4</td>
<td>2</td>
<td>1/4</td>
</tr>
<tr>
<td>Apr '34</td>
<td>2-1/4</td>
<td>4-1/2</td>
<td>2</td>
<td>1/2</td>
</tr>
<tr>
<td>Nov '34</td>
<td>2</td>
<td>4-1/2</td>
<td>1</td>
<td>1/2</td>
</tr>
<tr>
<td>Aug '52</td>
<td>1</td>
<td>4-3/4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Jun '53</td>
<td>1</td>
<td>4-3/4</td>
<td>1</td>
<td>1-1/4</td>
</tr>
<tr>
<td>Jan '55*</td>
<td>1</td>
<td>4-3/4</td>
<td>1</td>
<td>1-1/4</td>
</tr>
</tbody>
</table>

a) Since July, 1940, rate for Municipal and other semi-government authorities, 1/4% less.

b) Since January, 1947, 1/4% less where government guaranteed.

c) 1-1/2% in excess of £10,000.


*January, 1955, figures were provided by the Commonwealth Bank, Brisbane, January 20, 1955.
community as a whole for its lack of appreciation of the fact that economic aspirations are always well in excess of economic resources.

Movements in wages have also posed the very serious problem whether the Central Bank should agree to wage increases being accompanied by expansion of the money supply or whether the inflationary effects of wage increases should be offset by measures of monetary deflation. The Bank authorities have been reluctant to make any decision on this problem in a hurry. The peculiarities of the Commonwealth Constitution provide further obstacles to the pursuit of logical policies.

Much of Australia's monetary policy has been experimental, and all of it has been undertaken in the highly-charged political atmosphere generated by the legislation of 1945 and the bank nationalization move in 1947. These actions still make it difficult for the authorities to look at any suggestion without seeing something sinister in the background.

On a few occasions in the past few years the monetary authorities renounced their initiative by sticking to fixed rates of interest when the market rates were rising, and so failed to restrain the demands of the private sector for additional finance. On each occasion they had to follow behind the market after losing control. Previous
to this in each case, the authorities in a vain attempt to peg the bond market added to the expansion of the money supply. The intention of banking policy is to prevent just such an event. The boom in hire-purchase finance in 1951/52 and in 1956/57 is an example of this time lag.

In fact the appeal of hire-purchase activities to the investor has proved a potent factor in the capital-investment booms. This has been an embarrassment to the banks and to the monetary authorities. The monetary authorities have considered themselves powerless to deal with the situation directly by constitutional means and were unwilling to compete in the capital market for fear of too great a disturbance to bond prices. Mr. Holder said that "This is still an unsolved problem of monetary policy".  

Allied to monetary policy, the Commonwealth budget can also be regarded as an important monetary instrument, both in its total effect and also in some of its fiscal effects. Here again, the general influence over the period appears to have made the task of other means of monetary policy more difficult. The federal government's funds have been utilized in supporting the heavy works programs of the states. This has maintained, if not increased, the inflationary demand on resources.

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6Ibid.
The fact that substantial price changes have not been prevented is a measure of the failure of monetary policy to do all that was asked of it. But it would be unrealistic to expect monetary action, however efficient, to be able to make all the appropriate adjustments in the face of the extensively increasing operations of the Australian government.

**Internal Economic Trends**

The events of World War II brought home to the Australians their basic dependence upon the United Kingdom for industrial products. Consequently, before the end of the war the Australians began to plan for a development program which would in time lessen this basic dependence upon Britain and would put Australia in a better position of defense in the event of a Third World War.

The effect of the program on the economy was that it unexpectedly assumed the pattern of the "advocates of full employment in the neo-Keynesian sense of more jobs than people to fill the jobs". The rapidity with which the transition from a war economy to a peace economy of boom proportions developed was totally unexpected. It is probably true to say that Australia was less prepared than other...

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7D. B. Copland, an address to the Federal Institute of Accountants, Melbourne, on September 26, 1950.
leading Western countries to meet the new situation. Australia entered into a condition of "over-full employment" without any serious attempt being made to direct the resources of the economy into basic and essential industries\textsuperscript{8} upon which balanced economic expansion depends. D. B. Copland characterized the Australian economy as a "... milk bar economy ..."\textsuperscript{9} in the sense that it had an ill-balanced distribution of resources between essential and non-essential industries.

The lack of an effective government policy to direct resource allocation to the basic industries gave rise to an unbalanced development in the economy. The result was that the increase in output per person employed was extensive in the non-essential industries, while output in the basic industries remained almost stationary. In the early postwar years high prices for exports masked the stagnation in output in the export industries. Also the lower level of imports under

\textsuperscript{8} Four groups of industries are considered as basic, namely, industries providing staple foodstuffs and fibers for industry; industries providing goods required for maintenance and expansion of capital goods, including housing; industries essential to the development of power and the provision of power itself; and industries essential to the expansion of export production. In all these industries production has been disappointing until recent years. The output of the whole has fallen far short of demand at the new level of activity.

\textsuperscript{9} An address to the Canberra branch of the Economic Society of Australia and New Zealand, April, 1949.
postwar conditions gave secondary industries the opportunity for rapid expansion. Heavy postwar demand for all products, and high levels of income, stimulated the production of luxury goods and services. The effect of this was to promote a somewhat unbalanced dispersial of the productive effort of the economy.

In recent years the government has attempted to remedy this condition. The establishment of new industries has been discouraged, except for those of major importance to the future development of the country's resources. An attempt is being made to develop an over-all plan with priorities for the industries that are regarded as basic to immediate requirements and to long-term prosperity.

Even before the aim of expanding Australia's future defense preparations could be achieved, the economy was already under strain as a result of the development and migration program that the nation had embarked upon in the postwar years. This early brought up the question whether Australia had been too ambitious in combining a long-term development plan, centered around the provision of more power and the expansion of other basic industries, with a heavy migration scheme, and superimposing on this increased defense preparations. It involved an investment ratio (if defense spending is included as
investment) of over one-third of Australia's national income. The prewar ratio was little more than half this amount.10

Any slowing up of the investment and migration program would not have solved the basic problems that beset the Australian economy in this period. Such a change of policy might have slowed down the tempo of an increase in the price level. The increase in the price level can be attributed to the great increase in some export prices, especially prices of wool in 1950. (see Table 26). The pressure of investment and the low level of productivity were the chief forces promoting a higher price level. Table 27 indicates the level of gross private investment during the period.

There was no significant action on the part of the government to restrain the increased level of purchasing power induced by high import prices. Nor was there any attempt to arrest the boom itself. It was felt that no change of policy with regard to investment or migration would seriously affect the inflationary pressure arising from this source. Nor was it felt that it would add anything to productivity. On the contrary, any reduction in the number of migrants available for the basic industries might have had quite serious consequences for some of the industries. This was particularly true of

TABLE 26

RETAIL AND WHOLESALE PRICE INDEXES*

1947/48 TO 1956/57

<table>
<thead>
<tr>
<th>Year</th>
<th>Retail prices (cost of living)</th>
<th>Wholesale prices</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Goods principally home produced</td>
<td>Goods principally imported</td>
<td>All groups</td>
</tr>
<tr>
<td>1947/48</td>
<td>1392</td>
<td>145</td>
<td>192</td>
</tr>
<tr>
<td>1948/49</td>
<td>1528</td>
<td>173</td>
<td>201</td>
</tr>
<tr>
<td>1949/50</td>
<td>1669</td>
<td>198</td>
<td>223</td>
</tr>
<tr>
<td>1950/51</td>
<td>1906</td>
<td>242</td>
<td>256</td>
</tr>
<tr>
<td>1951/52</td>
<td>2337</td>
<td>305</td>
<td>288</td>
</tr>
<tr>
<td>1952/53</td>
<td>2550</td>
<td>331</td>
<td>292</td>
</tr>
<tr>
<td>1953/54</td>
<td>2622</td>
<td>343</td>
<td>284</td>
</tr>
<tr>
<td>1954/55</td>
<td>2644</td>
<td>338</td>
<td>277</td>
</tr>
<tr>
<td>1955/56</td>
<td>2731</td>
<td>349</td>
<td>284</td>
</tr>
<tr>
<td>1956/57</td>
<td>2801</td>
<td>356</td>
<td>289</td>
</tr>
</tbody>
</table>

* Based on average three years ended June, 1939 equals 1000 for retail and 100 for wholesale prices.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed capital equipment</td>
<td>113</td>
<td>162</td>
<td>220</td>
<td>299</td>
<td>422</td>
<td>567</td>
<td>720</td>
<td>637</td>
<td>725</td>
<td>833</td>
</tr>
<tr>
<td>Private dwelling construction</td>
<td>28</td>
<td>34</td>
<td>48</td>
<td>67</td>
<td>87</td>
<td>122</td>
<td>164</td>
<td>156</td>
<td>175</td>
<td>195</td>
</tr>
<tr>
<td>Other new building</td>
<td>19</td>
<td>21</td>
<td>27</td>
<td>34</td>
<td>42</td>
<td>54</td>
<td>80</td>
<td>81</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Trucks, utilities, etc.</td>
<td>9</td>
<td>10</td>
<td>21</td>
<td>28</td>
<td>49</td>
<td>72</td>
<td>80</td>
<td>58</td>
<td>64</td>
<td>74</td>
</tr>
<tr>
<td>Motorcars and cycles</td>
<td>20</td>
<td>20</td>
<td>34</td>
<td>53</td>
<td>95</td>
<td>116</td>
<td>143</td>
<td>111</td>
<td>145</td>
<td>182</td>
</tr>
<tr>
<td>Other capital equipment</td>
<td>37</td>
<td>77</td>
<td>90</td>
<td>117</td>
<td>149</td>
<td>203</td>
<td>253</td>
<td>231</td>
<td>260</td>
<td>282</td>
</tr>
<tr>
<td>Nonfarm stocks*</td>
<td>10</td>
<td>115</td>
<td>150</td>
<td>100</td>
<td>120</td>
<td>240</td>
<td>380</td>
<td>-170</td>
<td>35</td>
<td>120</td>
</tr>
<tr>
<td>Farm stocks*</td>
<td>-1</td>
<td>2</td>
<td>52</td>
<td>-20</td>
<td>34</td>
<td>-9</td>
<td>3</td>
<td>33</td>
<td>29</td>
<td>5</td>
</tr>
<tr>
<td>Total Private Investment</td>
<td>122</td>
<td>279</td>
<td>422</td>
<td>379</td>
<td>576</td>
<td>798</td>
<td>1103</td>
<td>500</td>
<td>789</td>
<td>958</td>
</tr>
</tbody>
</table>

* Amount of increase or decrease (-) during the year.

Iron and steel, bricks and building materials, the building industry, and transport.

Some of the difficulty encountered in the early postwar expansion was derived from two major changes in the economy since prewar years. The first was the apparent inability of either public or private enterprise to ensure the requisite output in the basic industries. Supply in these industries had been highly inelastic. The second change was the devotion to stability and security that emerged from the economic and political doctrines of the Labor Party's welfare state immediately after the war. The first was a limiting factor in physical terms. The latter was damaging to the spirit of enterprise necessary for such a development plan.

Undoubtedly much unnecessary investment is taking place in Australia today, but much of the development being undertaken is vital to the country's future. To slow down this development would be to sacrifice the immigration policy which the Australians believe to be a long-run contribution to Australia's defense. Also it would mean giving up some of the development projects that have been undertaken. The Australians sincerely believe that these projects are essential for the efficient growth of a self-reliant nation. The government felt that to reduce the output of consumer goods would be a confession of failure in the nation's capacity to maintain the current standard of
living, and an aggravation of the tendency for prices to go on rising. The government realized that some action was necessary to prevent a complete deterioration in the economy. It was realized that if no action were taken there would have to be a postponement of part of the development program, and that the standard of living would be reduced, through inflation. An inflation would be the worst of two possible alternatives.

In Australia the response of industry to the urgent need for more goods was being hindered by the activities of Communists in key industrial unions. Industry was also hindered by the growing world competition for resources and the general diseconomies associated with virulent inflation. It was the failure of the government in its fiscal and economic policies to give recognition to the lag in the supply of goods in 1950/51 which sowed the seeds both of its own political troubles and of the economy's general malaise in 1952/53. This failure was brought home to the Australian's by the sharp reversal of the country's favorable terms of trade after the United States had completed the bulk of its stock piling of wool in March, 1951. With this turn-about in the price of wool in April, Australia was faced once more with one of its oldest economic dilemmas. This was made all the more uncomfortable this time because it happened on top of an investment boom which had become dependent on the record wool
check. The proceeds of these record wool sales could not be immediately translated into goods.

The government pushed on with its development and immigration programs and encouraged the states and private enterprise in their own capital works projects regardless of the dangers and, if anything, with more abandon than before. This may seem incredible now. On the subject J. S. Horsfall said

There was much talk about inflation and its evils, but nobody in official circles seemed to sense that to the obvious shortage of labor and materials there would soon be added an overall shortage of finance. As it was the day-to-day capital requirements of the country were increasing rapidly. Raising prices were adding greatly to original estimates of the cost of capital works, which in any case were calling for progressively higher amounts of funds as the stage of construction advanced and many new projects were started.11

An unfavorable change in the economy came in mid 1951. The capital market showed enough signs of trouble to warrant the Federal Treasurer to act. The bond rate was increased in August of that year. The new rate was about equal to the yield on bonds at that time. The higher bond rate did not ensure the full subscription to a government loan. The government still did not realize that a capital shortage had become a real threat. A national conference of community leaders

was called to discuss the country's troubles. The conference was recognized as a failure.

The government's next move was to introduce a Budget aimed to take the sting out of inflation by means of steep increases in taxation. The Treasurer stated that this would enable the government to eliminate surplus spending power. In reality there was little spending power to eliminate. Sources of new primary income were contracting while prices were rising at a rate of more than 20 per cent a year and costs increasing at roughly the same pace. The situation may have been considerably different if the government had instituted some corrective measures a year sooner. It is the opinion of Mr. Horsfall that

There never was an Australian Budget concocted from more confused thinking than that brought down in September, 1951.

The government kept hoping that the full development program and the immigration program could be saved and the inflationary spiral halted by the arrival of a growing volume of imports ordered on the strength of the record wool check of the previous season. The government felt that the more imports that arrived the better the chance that more

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money could be created for public works. The private banks were
told to be more sparing in granting credits for the private sector, but
not, apparently, for imports. However, the government was very
determined not to resort to Central Bank credit to finance develop-
ment. In view of its determination to present inflation as the main
problem instead of a capital shortage, it could hardly have advocated
this.

The economy was on the verge of serious trouble at the end
of 1951, and industry was on the verge of a recession. This was the
result of the Budget of September 1951 and partly because of com-
petition, particularly in textiles, from imports. Funds for spending
on public works were becoming hard to find. The government had
followed the course of issuing more Treasury bills mainly because its
Treasury advisors were saying that excess money supply was still the
main problem and also because of a sudden large drop in London
reserves. The latter started in July, 1951 and had reached serious
proportions by October. If the drop in reserves had continued import
restrictions would have likely been imposed. The run on London
reserves had started by heavy payments for imports. It had been
stimulated in August by an outflow of private capital which was
prompted by the deterioration in economic outlook and the ending of
any lingering hopes of revaluation. Still the government failed to take
any early action to stop the drain on London reserves. In January, 1952 it still clung to the idea that inflation was the problem and that a flood of imports would solve the problem.

The Treasurer, Sir Arthur Fadden, found out the truth in London at the Commonwealth Finance Ministers' conference in January, 1952. The conference met to consider the prevailing threat to the solvency of the Sterling Area. The Treasurer was told fairly bluntly by the British Chancellor of the Exchequer that Australia's expenditure on development was one of the causes of strain on the Sterling Area's balance of payments and that retrenchment was necessary in all member countries. This was difficult for Australia to take but the British promised to pay more attention to Commonwealth development. Import restrictions were imposed in March. But, despite warnings, the idea of internal retrenchment in Australia did not gain much ground in government circles after the London conference. Treasury bills were injected into the economy in order to restore the balance of money-goods relation and to help to preserve employment. The Commonwealth Bank also released a large proportion of the deposits of the private banks held in special deposit accounts at the Bank. The general economic situation took some time to recover because of the deterioration in business confidence.
Australia recovered remarkably well in 1952/53 with this change in monetary policy. The price was a slowdown in the rate of economic development. Australia was also stuck with a greatly inflated cost structure. Better monetary management under Sir Roland Wilson aided in the recovery. Also wool prices recovered in 1952/53 and there was a sizable inventory of goods left over from the import boom. As a result full employment was restored in 1953/54 and in that year the country was able to set aside about a quarter of the gross domestic product for capital formation without prices increasing. By the end of 1955 there were signs of inflationary pressures appearing again. Also international reserves were again being put under a strain so that import restrictions were increased in March and September of 1955.\footnote{From the end of 1949 when the Menzies-Fadden government took office, to the end of 1955, retail prices in Australia increased by about 60 per cent, whereas in the same period they increased only 40 per cent in New Zealand, 28 per cent in both the United Kingdom and South Africa, 17 per cent in Canada, and 15 per cent in the United States.}

The Treasurer in his budget speech in September, 1955 admitted that the government was becoming concerned. He said it was "... still a mild and incipient form of inflation if compared with our experience in the period up to 1952." This mild inflation was to become a very serious problem before a year had passed.
At the end of January, 1956 eight of Australia's leading economists warned that unless the federal government took strong economic measures immediately Australia might soon face an acute economic crisis.15 The economists urged that all forms of taxation should be increased substantially and immediately. Also interest rates should be increased. They urged the tax and interest rises "...simply as first measures to guard against what might shortly become an acute economic crisis".16

The "professors' statement" was issued following the first information bulletin on the economy issued by the Commonwealth Treasury. They felt that the

Trends revealed in the bulletin have serious implications for the future. The spendthrift prosperity denounced in August by the Treasurer, Sir Arthur Fadden, and in September by the Prime Minister, continues without visible abatement. The internal boom, with its creeping inflation of expenditures, prices, wages, and profits, has been fed in the last six months by a Commonwealth overall cash deficit of $105 million.17

15The economists were T. W. Swan and H. W. Arndt of the Australian National University; H. D. Black of the University of Sydney; D. Cochrane, R. I. Downing, and Wilfred Prest of the University of Melbourne; G. G. Firth of the University of Tasmania; and P. H. Karmel of the University of Adelaide.

16The Sydney Morning Herald, February 1, 1956.

17Ibid.
The deficit was the result of Treasury Bill financing and considerable expansion of Central Bank credit to support the bond market. The high levels of consumption and investment of the same period were made possible by a continued supply of imports with a further loss of £58 million in international reserves. Thus, a critical situation in the economy was being masked in monetary terms by inflationary public finance, and in real terms by a rate of imports which could not be maintained. The cut in imports of nearly £200 million imposed in 1955 finally became effective by mid-1956. This was what the economists feared and it created inflationary pressures. That was why they desired a cut in "money demands" before the situation became too serious. They felt that the government's reliance on appeals for voluntary restraints and on tighter bank credit was not enough. Time proved them to be right.

At this time if the government had made any attempt to cut its expenditures and achieved a budget surplus, its dependence on the loan market and the Commonwealth Bank to finance public works would have been removed. This is in part what the government had to do later. Also, the Prime Minister submitted a supplemental budget on

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18 The level of imports was near the average of 1954/55 even though import restrictions had been increased two times in 1955.
March 14, 1956 with increased taxes on a very wide range of items. The government hoped to restrain demand by this method. The measure was partially successful but it would have been more so if taken earlier when the economists suggested it.

The economists made their suggestions on the morning of February 1, 1956. The Loan Council rejected the idea in the afternoon. The Council did not like the idea of a tax increase to get the money for development. They preferred creating credit money and left the bond rate pegged at the same level.

The Prime Minister in his supplementary budget speech said

We are a nation, enjoying a high measure of prosperity...We are experiencing a high and growing money purchasing power...To achieve economic health, we must...reduce our demand...purchasing power and demand are at record levels...the most effective immediate way to relieve inflation is to reduce the volume of purchasing power.19

What the Prime Minister wanted to achieve was to cut "excessive purchasing power". It was the opinion of many that the supplementary budget did just the reverse. This, in fact, appeared to be true. On the subject J. F. Cairns said

The Prime Minister's supplementary budget does the very reverse. It cuts demand by those who are poor enough to have to borrow money at increased interest

rates and increases demand by those who are rich enough to be able to lend it. It cuts demand by those who spend on the taxed consumption goods and increases demand by those who sell them. What is more, it is likely to increase total demand more than it reduces it. 20

The Prime Minister recognized in his speech that there was a good deal to be said for introducing selective controls on the demand for capital by some system of capital issues control. Also, he felt the same applied to the "vexed problem" of hire purchase. Though, he did not think it was opportune to act at that time. This also proved to be a mistake as time indicated.

The government set up a Commonwealth Economic Planning Board in February, 1956 to aid it in formulating economic policy. The Board was to be made up of eight ministers, two economists, and four persons representing primary industries and manufacturing and commercial activities. The Prime Minister is the chairman of the Board and the Treasurer is the deputy chairman. Up to this point the Treasury was the principal economic advisor to the government. The new arrangement is a major policy change. In the new committee of experts, Treasury representation is small compared with that of other

20 J. F. Cairns, "Controlling Inflation", Voice, April, 1956, p. 24. Mr. Cairns was formerly Senior Lecturer in economics at the University of Melbourne and at that time a member of the Federal House of Representatives.
official sections which have frequently criticized Treasury policy.
The minister's committee virtually dictates government economic
policy. But some major decisions are subject to approval of the
Cabinet and Parliament. The matters it will deal with include the
budget, import control policy, Loan Council policy, migration policy,
development policy, and the government agricultural and production
program.

The Australian economy was in serious trouble by August, 1956 due to the lack of any effective policy from the government. Inflationary pressures were causing serious troubles in both the internal and external sectors of the economy. The issue was brought to a head at a Loan Council meeting on June 30, 1956. It was decided to hold a Premiers' Conference after the return from abroad of the Prime Minister. The problem to be discussed was the disparity between state and federal wage rates. All of the states except South Australia were paying automatic cost-of-living adjustments to workers under state awards, despite the decision of the Arbitration Court in 1953 to discontinue these adjustments for workers under federal awards. The Conference was held in the absence of the Prime Minister since he delayed his return from overseas. The Conference was a failure in that no decision was reached. The Prime Minister was severely criticized, and justly so, for his failure to return to Australia at that time and give the Conference the leadership it needed.
As the full impact of the supplementary budget of March, 1956 was gradually felt by the economy, demand slowly decreased to a level that could be accommodated by the supply of goods and services available under the tightened import conditions. By late 1956 it was not certain that this condition would continue. A great deal depended on the trend in wool prices. Fortunately for Australia the wool prices steadily increased during the 1956/57 season. The result of the increase in export receipts together with a reduction in import payments produced a surplus on the current account. This resulted in an increase in international reserves.

The inflationary pressures were greatly lessened and the internal sector of the economy appeared to be in a better position by early 1957. A new expansion in business activity began as employment and production increased. Again a continuance of expansion depended upon the wool prices in the 1957/58 season. As the sales began in August, 1957 prices began to fall and fell throughout the entire season. There was no revival of the inflationary pressures as import restrictions were not lessened. The rise of domestic productivity and the relative stability of wages during 1957/58 did much to improve Australia's ability to compete with imports. But a fall in export prices, as the result of recession in many of the industrial nations, offset this advantage. Australia could use her international
reserves but something still had to be done to cut her domestic costs to a competitive level. The alternative to this was to increase import restrictions.

Business activity was at a high level during the last half of 1957 and early 1958. Production was rising in the basic industries such as steel, coal, and power. But, there was a good deal of unused capacity in some industries, notably in the auto and domestic appliance fields. Unemployment more than doubled from the year before and by November reached the highest level since the 1952/53 recession.21 The government authorities kept a close watch on the deflationary influences developing as the result of drought, reduced wool and wheat earnings, and import relaxations.

The drought reinforced the credit restrictions and taxation, which the year before succeeded in curbing the overspending which was one of the main causes of Australia's difficulties. Over the year, personal consumption expenditure barely kept pace with the rise in prices and population. Private investment expenditure declined as a result of reduced spending on inventories. The continuous rise in the cost of living index was halted by September of 1957. This was despite a rise of 10/- in the federal wage. It appeared that industry absorbed

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21 The Financial Times, November 19, 1957.
the wage increase. These developments caused a check to the cost inflation which had been pricing Australia out of the competitive world markets.

A significant factor in the check of expansion was the drop in rural investment. Pastoralists who had satisfied their most urgent requirements for capital development tended to conserve their resources, partly as a precaution against a dry season. These unspent millions of pounds lifted bank deposits, reduced advances, and helped to raise the level of personal savings to the highest in four years. Meanwhile, suspension of automatic variations in wages prevented any spending of higher export incomes from spreading its full effects into general commodity demand.

The performance of the Australian economy over the past year (1958/59) has been creditable and the country has come through a period of some difficulty without serious distortions or loss. If good seasons continue and commodity prices continue to rise further, Australia can look forward to a prosperous year in 1959/60.

Wool prices, after falling from an average of about 80 pence per pound in 1956/57 to about 63 pence per pound in 1957/58, fell further, to 43 pence per pound in January, 1959. The price of wool, though, has started to rise and has continued to rise through July 1, 1959. Other exports have done well also recently. There has been
an expansion of exports of beef, particularly to the United States since the first of January, 1959. There have been record crops of oats and barley, and the wheat harvest was one of the largest on record. Exports of minerals are expected to be greater and prices are expected to be higher as the nations recover from recent recessions.22

The domestic economy has been characterized by a strong employment position, increasing industrial output, and a high level of building activity and industrial investment in recent months. The level of consumer demand appears to be sufficient to take up any additional output, and there is no indication of a buildup of inventories. The main weakness is in the wool industry which is still financially the strongest of the rural industries. The fact that the domestic economy was not affected more by the fall in wool prices reflects the fact that farm income is a much smaller proportion of the gross national product than it used to be. In 1956/57 when Australia received its last big wool check it was almost 10 per cent. Though, it should not be forgotten that the role wool plays in export income is not this small. Wool remains the largest export earner.

Summary

The extraordinary fluctuations in Australia's balance of payments in the past have caused disturbances and embarrassment not only to the Australians but to the Sterling Area as a whole. This naturally made the other member nations anxious to see whether disturbances of this order could be avoided in the future. Australia was asked if it would emulate its partners by making greater use of a more positive and flexible monetary policy to this end.

Australia could modify the fluctuations in its external accounts by using its existing monetary weapons more frequently and at the proper time. Also new and more effective techniques of control could be evolved. But there are special factors in Australia that work against a reliance on monetary policy as an external regulator. In the first place, Australia's exports are subject to severe fluctuations. Around one-half of export proceeds are normally derived from wool and the greater proportion of the remainder comes from exports of foodstuffs. These items are subject to climatic conditions, severe price changes, and world demand. Also the length of transportation lines over which Australia's imports have to travel means that the pressures or sanctions on Australian importers have their effect on landed imports only after a time lag running into some months.
Australia's high dependence upon overseas trade, moreover, means that swings in the external balance have a particularly strong automatic effect on bank credit and national income, and, after some lag, also on imports. In order to carry out its policy of maintaining internal stability, the Commonwealth Bank consequently feels the need to protect the banking system from the worst of these automatic forces. And accordingly it may actually aid banking liquidity in times of external deficit and reduce it in times of external surplus. The dilemma of the monetary authorities in attempting to maintain internal and external equilibrium is the greater on account of the import-time lag, and the impossibility of forecasting how far conditions will have changed by the time their policies take effect. In addition, there are the unusual difficulties of applying orthodox monetary weapons in an economy with only a narrow capital market and without a tradition on the part of the banks of close adherence to a definite liquidity ratio.

The main instrument of Central Banking control in Australia is, in fact, neither that of open market operations nor of frequent resort to changes in interest rates. Control is now centered in the freezing of reserves in Special Accounts. By reducing effective reserves in times of boom and expanding banking liquidity in times of external strain on bank reserves the Special Account system has been a moderately effective internal stabilizer. It has, also, in exactly
corresponding measure served to intensify the originating unbalance in external accounts. Greater stability could have been achieved, though, if the proper authorities had been farsighted enough.

Australia's basic postwar financial problems arose out of the drive toward the economic development of the country. The Commonwealth government made extensive use of its fiscal policy to encourage economic growth and prosperity. Also attempts were made to use this policy to maintain stability but this was not always successful. Many of the problems were the result of an over ambitious development plan and a large immigration program. The result was that Australia often found itself in a condition of over full employment. Thus inflation was a thing Australians had to live with frequently.

The Commonwealth government attempted to do nothing that would slow down the process of development unnecessarily. The result was that the government's policy was generally ineffective or too late. The government generally felt that the principal problem was inflation where time has indicated that it was likely a capital shortage.
CONCLUSIONS

The many-sided economic development in Australia, especially since World War II, is one of the most impressive of modern times. Australia's determination to expand, aided by a large inflow of foreign capital and a great new labor force of immigrants from Europe, has brought significant results. Science and mechanization have multiplied agricultural yields, and large new industries have sprung up around all the principal cities.

Australia's tremendous development was helped substantially by the fact that domestic and world shortages of many goods and services gave a spur to much public investment, and provided the essential profits which were necessary to stimulate private enterprise. In this period Australia devoted sufficient of its production and imports to the task of developing the country's resources to enable the immigrants being brought in under the migration program to be absorbed.

The question is frequently asked if Australia can maintain its rate of expansion. The answer is in the affirmative. But, the background from now on will no longer be one of shortages. However, many opportunities for expansion still exist. Increased scientific knowledge about the country is transforming the outlook, and the economic potential has been enormously expanded. No longer must Australia's future be visualized as being that of a large physical area.
occupied by a relatively sparse population. But the immediate vital question is, what rate of expansion will the people of Australia be willing to carry out in the next few years?

It is not a question which has to be settled now. There would probably be a general agreement that the country would be better off with a high rate of development on a sound basis than without it. The decision will be made in democratic fashion by the people. It is important, therefore, that the process whereby development takes place should be well understood.

The basis of the Australian government's development policy since World War II has been the general acceptance of the desirability of developing and expanding resources at the highest possible rate while maintaining a stable economy. The objectives have been immediately to increase Australia's white population, raise the level of living, and strengthen the country's defense potential. More recently an even more immediately pressing aim has arisen with the need for increasing the nation's exportable surplus so as to assist in balancing international accounts, and at the same time permit a high rate of required imports.

The postwar Australian economy has had two major related problems to face. They are inflation in the internal sector of the economy, and current-account deficits in the balance of payments in
the external sector of the economy. These difficulties sprang from the policy of rapid national development. The problems might be expected to recur from time to time so long as expansionary policies persist.

Perhaps the more urgent of these problems is the position of the balance of payments. A prerequisite for any rational balance of payments policy is the removal of internal inflationary conditions. By the use of various types of controls and policies the government has attempted to solve this problem. This involves the fundamental decision to be made about the rate of economic development.

The feeling of an urgent need to develop was the result of World War II. Australia was informed by the United Kingdom that it would be on its own to a large extent. This brought home to the Australians their basic dependence upon British industrial products and their lack of industrial development. Thus, the Australians began an economic development program to achieve greater independence and to improve their national defense.

Many difficulties had to be faced in this process such as a labor shortage, the Korean War, the need to expand exports, and the increasing requirements for imports. Thus, the critical problem became the balance of payments.

The trend in overseas payments is of vital importance to the Australian economic life. Since World War II it has fallen into four
distinct phases. The first was a period of high commodity prices in an era of shortages of finished goods. This period continued up to the Korean War. The second phase began during the Korean War. At this time the Australian government increased its targets for national development. The expanded development program was based on the phenomenal rise in wool prices. This generated an increase in confidence in the Australian economy and imports were greatly expanded. The third phase began with a rapid decline in some commodity prices, particularly wool, as demands stimulated by the Korean War diminished. Therefore, as Australia's high export income fell the country found itself facing a serious situation as imports continued to expand. Severe import controls were imposed to prevent a serious depletion of Australia's international reserves. An increase in export incomes, combined with a more restrained level of demand, permitted successive easing of import quotas. The fourth phase began with the internal inflation of 1956 and a critical loss of international reserves. Today, inflation is not a great problem and over-full employment is not the norm. Australia, however, has recently passed through a severe drought which has cut her exports of surplus agricultural commodities.

The government's policy for development and internal and external stability has not always been the best possible for various
reasons. This meant that the proper environment for development has not always been created by the government. Now, in more competitive conditions, the costs of development become more apparent. Therefore, it is important that future policies should be soundly based to ensure economic development.

Evidence of the achievement of the period since World War II in the economic development of Australia may be found in every hand, in the increase in population, by natural increase as well as by rapid immigration; in terms of larger physical output in primary industries as well as in manufacturing; in public works construction; in the growth of factories, establishment of new industries, and greater capital investment on farms in the form of machinery, buildings, and improvements in the quality of pastures, plants, and livestock.

All these forms of development have been accomplished under frustrating conditions of scarcities and rising costs. Despite the rapid rate of increase in population and of the expansion of civil employment; conditions of over-full employment of varying degrees of intensity have prevailed, except for a brief period of readjustment during 1952 and during 1956/57. During the whole period skilled labor has been persistently scarce. In consequence, through the various court adjustments to the basic wage and the margins for skills as well as through overtime payments, average weekly wages have
risen. Early scarcities of basic materials, notably coal, steel products, and electric power, and of plant and machinery, hindered development programs in all their phases, and even when made good by imports, all these items manifested rising costs.

In these discouraging circumstances it is remarkable in retrospect that so much was achieved. A driving force was, initially, the banked-up demand after wartime restraint of consumption throughout the community and after the suspension of capital expansion in industry and even neglect of maintenance during the war. These pressures were particularly evident in the demand for housing and motor vehicles and in the urgent needs for expanded capacity in electricity generation and public transport. These primary forces were early reinforced by population pressures, in the high rate of family formation after the war and subsequently by the immigration influx. The expectation of a sustained high rate of increase of population has been the basis of most planning for capital expansion in private industry as in public works.

Yet, in the conditions of persistent postwar scarcity the vast requirements for reconstruction could be met at the speed they were only through the fortunate circumstance of a relatively large wartime accumulation of overseas reserves and continuously improving terms of trade. By virtue of these circumstances a significant proportion
of current requirements and much of the vital capital equipment required for development programs could be imported subject chiefly to the limitations of overseas deliveries rather than of any scarcity of Australian reserves of overseas funds. Even before the Korean-War boom the terms of trade had improved so much, through the greater increase in export prices compared with import prices, that a given quantity of exports was equivalent to about 30 per cent more imports than in the years immediately before the war. In the three years following the record wool season of 1950/51 something approaching this relationship was sustained, despite a rather high level of import prices.

This improved earning power of Australian exports was supplemented further by the considerable inflow of capital from overseas, chiefly on private account. Although this had varied sharply from year to year in accordance with overseas estimates of investment opportunities, it has made a notable contribution to Australian development, both in the form of the larger volume of imports which it has permitted and also in the extension of new industries and technical processes.

Buoyant export incomes and inflow of overseas capital helped to create favorable conditions for investment in Australia, providing a base for both higher consumption standards and larger domestic
savings. Although the yearly totals have been influenced by variations in the business outlook and by changes in the availability of funds for expansion from other sources, the higher rate of investment has been characterized by a spate of new issues by Australian companies. More capital has been provided in the form of fixed interest borrowing by companies and an increasing amount by retained profits which it has been possible to accumulate in the prevailing conditions of strong demand for virtually all the products of successful industry.

In the government sector much of the capital works program has been financed by public loan subscriptions and by overseas borrowing, chiefly in the large loans obtained from the International Bank for Reconstruction and Development. But an increasing proportion of public works has been financed in recent years by revenue surpluses derived by continued high rates of tax on inflated incomes and turnovers.

Indeed on analysis, it is clear that a substantial proportion of capital development in both public and private sectors since the war has been financed by an inflation which has more than doubled prices and not quite doubled money wages. This inflation has effectively reduced the real incomes of all on fixed money incomes, chiefly retired persons, educational foundations, and those dependent on
rents and other investment income which has not been fully adjusted to the rise in prices. Fear of continued inflation has lessened support for government bond raising. It has also shifted the emphasis in many individual budgets away from saving to spending on higher standards of consumption and on consumer durables such as motor cars and household appliances, assisted largely by hire purchase finance.

Until recently, these deleterious effects of inflation have been partly concealed by the buoyant conditions of overseas trade and investment. Lately, however, the pressures on the economy have been painfully evident in the sustained high demand for imports which continued to flow in despite successive stringency of licensing. The urgency of this structural drain on the balance of payments has been emphasized by the weakening of export prices which have brought the terms of trade back to the same relationship as existed during the latter part of the 1930's. Fortunately the volume of overseas investment has continued high to support the drain of payments on trade and current services.

These recent circumstances have directed the course of development more along lines of national self-sufficiency than those dictated by economic efficiency, and in consequence have tended to raise the level of costs rather than provide a sound basis of economic expansion. Scarcity of overseas currency and the need for tight
restraint of imports has placed great emphasis on the principle of import replacement in the development of manufacturing, with but scant regard to costs or to the pressures which such capital expansion itself places on imports of plant and equipment, or on funds available for investment. It may be argued that such a policy reinforces the pressures of inflation and higher costs because it involves a less than ideal economic use of resources and in many cases maintains the demand for imports of raw materials which cannot be cut back without resultant unemployment and wastage of industrial capacity.

The scale of development and capital expansion in Australia has imposed critical pressures which demand some adjustment now that the bonus conditions in the terms of trade have ended. Development programs based on continued rapid growth of population by a high rate of immigration, which dictates an expanded capacity in industry, housing, and public utilities, are producing daily more strains on the community in the form of intensified inflation, higher costs, and more stringent balance of payments problems. Under these pressures the immediate political reaction is toward more rigorous controls and direction of the economy to endeavor to sustain the ideals of development. But, as has been pointed out in the case of import replacement, these policies intensify the strains. Attempts
to finance development by inflation will destroy the social structure and the moral capital of the community as well as frustrating the economic objectives of development.

Despite the unpalatable problems, however, the basic drives of development still remain. There is still urgent need for expansion of community capital in the form of hospitals, schools, better roads and improvements in other forms of transport. Higher levels of living depend on greater productivity in industry which will come in any significant proportions from more labor-saving machinery, rather than from harder work, though, that has an important place where equipment is being used below its technical capacity. Australians have a moral, as well as an economic, incentive to develop the physical resources of the country to their optimum potential.

To achieve these objectives and yet to avoid the self-defeating descent into government controls, the rate of development must be matched to the rate of savings for investment. This may mean moderating the rate of development. It certainly requires the adoption of realistic monetary and fiscal policies which will defeat inflation, induce adequate savings, and preserve the workings of the economic system to ensure the pattern of development is best designed to achieve economic strength and efficiency. It is better to proceed more slowly than to be bogged down with a series of incomplete
grandiose projects in a morass of controls.

National development is an article of faith with most Australians. Public and private authorities have many plans for increasing the capacity of the country to provide desirable goods and services. One of the great problems before the authorities is to decide which projects should be undertaken and at what rate. Three of the most important proposals for development projects are proposals for a hydro-electric scheme on the Clarence River in northern New South Wales; for a large land settlement scheme in the Riverina; and for standard gauge railways linking Broken Hill to Port Pirie and Kalgoorlie to Fremantle. The latter would give Australia a standard gauge railway running from the east coast to the West coast.

The especially remarkable thing about what is happening today is that development plans are being carried out close to the limit of the natural resources available. Furthermore, these plans are being carried out at the same time when a large proportion of these resources is being diverted to national defense purposes. If development at a much greater rate is desired, the nation must either borrow money overseas in order to purchase the desired material from overseas, or spend proportionately less on such things as clothing, home comforts, and entertainment so that there will be that much more available for developing resources.
Of course, with almost all natural and human resources being used, much more careful judgment must be used in deciding what new projects shall be undertaken. On the one hand, there is no sense in trying to do too much by commencing too many projects which cannot be continued steadily. On the other hand, the projects selected must be those which as far as possible will advance national development the most. These are the investment decisions which determine the rate of development.

In the private sector such decisions are influenced by all citizens who are seeking to buy goods and services of some kind. When the demand tends to increase relative to supply, this will suggest to some enterprising Australian that he should seek to provide the goods and services being sought. Private enterprise has by far the biggest share of the responsibility for making investment decisions. In the main these decisions have been wise and constructive.

So far as the public sector is concerned it is the Common-wealth and state governments who decide what plans will be undertaken and in what volume. These governments have two tasks. First they have to judge what level of public works expenditure is needed to complement the level of private investment without raising too high the consequential demand for goods and services. Next they must provide a number of goods and services which are vital to economic development, including transport, communications and power, and, which if
not provided in adequate quantity, can retard the rate of development. These are the processes by which national development is taking place in the public and private sectors and they are working effectively.

Many resources are being developed. In the primary industries, new prospects for development are being carried out as the result of the increasing knowledge being gained by CSIRO of the means of correcting soil deficiencies. However, the important feature is that increased technical knowledge applied in Australia has shown that the capacity for primary production is now much greater than was once supposed.

So far as manufacturing industries are concerned they have developed greatly since World War II. Their future development will be limited in part by the growth in the size of the home market, which in turn is affected by the growth in population. It will also be influenced by the ability of manufacturing industry to increase its efficiency and reduce its costs so that it may demand the greatest possible share of the available markets, domestically and overseas. With the great expansion in manufacturing that has taken place since the war it is not surprising that costs have tended to be on the high side. It has been necessary to introduce much new plant, to train management and operatives in new techniques of production, and to
meet all the inevitable problems of production and control associated with launching new ventures. Growth of this nature cannot fail to be costly. Australia should now commence to reap real benefits from the greatly increased capacity established by manufacturing industries in the postwar period.

At the same time, however, the process of expansion will go on. There are still many opportunities for development and growth of existing industries and establishment of new ventures of many kinds, for example, those which will produce goods or provide services in specialized fields. In the postwar period there have been many new manufacturing ventures started in Australia by foreign capital. These developments have been of enormous value to Australia.

The long-term outlook for the mineral industries in Australia is today more promising than it has been for many years. As a result of modifications in taxation policy, a real stimulus has been given to development and expansion. Interesting and promising developments have taken place in oil, uranium, copper, lead, and zinc. Further prospective developments in the mineral industries can strengthen Australia's basic material-supply situation, and also the country's foreign exchange position. This, of course, is particularly important because a shortage of foreign exchange could be a limiting factor in the rate of development.
In considering the means by which development is achieved, Australia's foreign exchange position is particularly important because resources still have to be imported from overseas for development purposes. Experience suggests that, on the whole, the higher the rate of development the more the resources are sought from abroad. But, as a general rule, Australia has to find from the proceeds of its own exports a substantial proportion of the foreign exchange required to pay for imported materials.

Sometimes in order to build up holdings of foreign exchange or to keep them at what is judged to be a prudent level, Australia has found it necessary to apply restrictions on the freedom with which overseas liabilities may be incurred. If the restrictions need to be made very severe they might in fact cause some reduction in the rate of development. Fortunately this has not often occurred in Australia, thought it has happened. In sum, the size of foreign exchange holdings in relation to prospective total outgoings on foreign account, is of great importance in determining what rate of development will be prudent and practicable.

Another important means of development is the nature and extent of domestic production and this, of course, is closely related to the question of imports. In fact the contribution to Australia's capacity for development which has come from domestic production
has been steadily increasing in recent years. Increases in domestic output in a number of important commodities will continue to be a substantial means of development.

The productivity of Australia's resources can influence materially what can be achieved. Thus, for example, science and research in the primary and secondary fields is a very important means contributing to the rate of development. Reference has already been made to the remarkable results of CSIRO concerning mineral deficiency in soils. Another spectacular achievement has been in the work on myxamatosis for control of the rabbit and the good results this has had on wool production. The past and the future work of CSIRO is of fundamental importance. It is an essential means to achieving a high rate of development. Not less important has been the contribution of the Bureau of Mineral Resources to mineral development, notably oil and uranium.

Australia has experienced some problems in its development program which likely could have been eliminated if the proper policy had been employed by the government. Also, it is fairly easy to determine that the balance of Australian production is not of the most desirable pattern. Manufacturing production is expanding on too wide a front and both the total volume of rural production and its composition are not quite what they should be. It is most difficult to find out
why manufacturing in Australia is concerned with making a greater variety of goods than the present size of the consumer market will allow to be produced on a scale consistent with low-cost production. It is still harder to understand how total rural production and its composition have tended to lag behind that desired. The use of import restrictions and tariffs appears to be the cause of the situation. And, it appears Australia will have import restrictions for some time to come.

Australian rural production has been relatively slow in the postwar period to expand. Limiting factors have been shortages of labor, of fertilizers, of agricultural machinery, and of such materials as fencing wire and galvanized iron. In the somewhat longer term, increasing and intensifying rural production usually calls for further capital expenditure by either individuals on improvements or governments for big developmental projects. Such expenditure is justified when the price and market prospects for the additional production are good. But the amount of capital available for investment in expansion depends partly on the relative attractiveness of investment in other industries. In the postwar period investment has been more attractive in the protected secondary industries. Thus, beyond these limitations lie broad issues of national policy as to the kind of balance which should be established between primary and secondary industries.
The future of the secondary industries is promising. There are, however, some limiting factors. In the first place, the Australian population provides only a small market compared with those of most other manufacturing countries—even though Australian standards of living may permit a higher per-capita consumption of manufactured goods than is found in some of those countries.

The expansion of manufacturing industries and the widening of their range must be limited in some degree by the size of this market. The manufacture of some articles requires such a large capital expenditure on plant that only mass production and a large volume of sales makes the establishment of a factory economically possible for a private company. Government subsidies and high tariffs have modified this situation. The government policy is based on a desire to increase Australia's defense potential. There is, inevitably, a limit beyond which protection or subsidy cannot go without imposing such a burden on the community that other forms of economic activity are adversely affected.

In spite of all these limitations, it has been in manufacturing industries that Australia's greatest postwar expansion has taken place. This has been largely a result of deliberate national policy. After the war the Australian government, uncertain of future world prices for food and raw materials, and determined to maintain full
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employment, sought to maintain in peacetime all the industrial capacity that had been created for the war effort. The government also stimulated the secondary industries in the direction of national self-sufficiency.

As was pointed out earlier, the technical and raw material resources exist to make possible considerable expansion of the secondary industries, but decisions about their rate of expansion and the pattern of the growth are increasingly being made on political grounds. Defense considerations, therefore, are likely to play an increasingly prominent part in national policy, especially as the nationalistic forces in Asia gather strength. The development of the tropical north is likely to be affected in this way. It is thought that if it is left underdeveloped, this region will become an invitation and temptation to the overcrowded peoples of Asia. Whereas in the past the tropical north was Australia's "back door" to the world, the airplane is fast making it Australia's "front door". Thus, the government feels that development of this area is essential—even if it does not pay for itself.

Coincidentally, there is renewed interest in the meat-producing possibilities of the inland tropical regions. And there is extensive development of large-scale rice growing on an economical basis in the Darwin area. The prospect of economic, as well as defense, rewards from the development of the north may easily decide
the issue for the Australian government.

Whatever choice the Australian people make it is apparent at present that the economy is basically sound. This is indicated by the fact that it seems likely that Australia's productive resources, while not great, will increase through use of scientific and technological methods. The use of chemical fertilizers will boost wool production on millions of acres. Irrigation projects, while limited in scope, will increase the area available for agriculture. Mineral resources are being tapped on a scale never before known. Bauxite discoveries are leading to construction of entirely new cities, oil exploration is being carried on intensively in Western Australia, and uranium discoveries are becoming more important.

Public works and other governmental measures will continue to create the foundation of a stable economy. Improvements in transportation and power plants have expanded development prospects. Research will continue to turn up new products and techniques to stimulate more efficient production. Private enterprise is showing increasing ingenuity and interest in discovering ways of reducing its cost structure. Handicapped by inability of its manufacturers to compete with goods produced elsewhere in great volume, industry is intensifying the search for products which can find a foreign market. Retailing practices are being improved and the long-neglected fields of
packaging, inventory control, material handling, and the like, are being studied as never before.

Foreign investment is finding Australia a particularly fertile ground. To date the Australians have shown little apprehension over foreign ownership of domestic resources and industries. The investment climate fostered by current expansion goals is bringing an increasing flow of overseas capital to the country, as officials, banks, and other agencies urge foreigners to "peg a stake" in Australia. There are good prospects for Australia's future as long as the government acts to reduce fluctuations in the economy.

The record of monetary and fiscal policy in Australia in the period after World War II is a mixed one. The task of bringing under control the postwar inflation may well have proved beyond the wisest of authorities. Yet there can be no doubt that the experience of the Australians showed up weaknesses both in the government's understanding of the situation and in the techniques used to overcome it. One important factor was that the government made little use of fiscal policy as a stability weapon.

Certain clear conclusions can be drawn from the Australian experience. First, no monetary policy can be effective unless there is reasonable discipline in public investment programs. Such discipline is practically impossible to achieve in conditions of grossly excessive money supply.
Second, in the restraint of a growing money supply, budget policy and more effective open market policy by the central bank can be of great value. If it is necessary to counter a growing money supply, open market sales must not be subordinated to low interest rates however desirable these may be.

Third, it was demonstrated that both central banking and trading bank policy would be given a surer foundation if there could be established a firm convention among banks as to an appropriate relationship between their liquid assets (other than Special Accounts) and total deposits. This was done in the recent revision of the Commonwealth Bank's controls.

Finally, it can be said that monetary policy, as used in Australia, has re-emerged as a significant force to deal with the problems of stability and has proved itself useful. The Australians have much to learn and many improvements in techniques to develop. In these tasks they can be aided by frank discussion and the widest possible understanding. It may well be said that the Australians will never wholly solve the problem of combining economic stability with full employment and development but it is a task worthy of their best intelligence and their utmost devotion.
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SECTION 2

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SECTION 4

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I, Wayne Travis Frank, was born in San Francisco, California, April 1, 1926. I received my secondary school education in the public schools of San Diego and Santa Ana, California, and my undergraduate training at the University of California at Los Angeles and Utah State University. I received the Bachelor of Science Degree in 1953 and the Master of Science Degree in 1955 from Utah State University. While in residence there, I was a graduate assistant in the Economics Department from 1953 to 1955. In March, 1955, I began work on the degree of Doctor of Philosophy at Michigan State University where I was a graduate assistant. From October, 1955, to November, 1956, I attended the University of Melbourne, in Australia, on a Fulbright Fellowship. Upon returning from Australia I took a position as an Assistant Instructor in the Economics Department at Ohio State University where I continued to work on the degree of Doctor of Philosophy. In September, 1959, I accepted a position as Assistant Professor at the University of Nevada while I completed the degree of Doctor of Philosophy.