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A MACRO-ECONOMIC ANALYSIS ABOUT AUSTRALIA AND NEW ZEALAND

by

Ryōichi Suzuki

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In connection with the recent problem of expanding Japan's trade areas, Australia and New Zealand have remarkably come into the limelight. Needless to say both countries are the constituents of economic sphere of the British Commonwealth, but in accompany with the recent economic growth their trade with Japan has jumped up to rank first in their respective total amounts of trade, giving Japan a very promising prospect, notably for plant exports. So let's try a general review of the economic positions of the two countries. First Table 1 presents the scale of economy (figures being computed by the National Income Division, Economic Planning Board, Japan). In both countries the level of per-capita income is higher than that of Britain, nearly two and half times as large as that of Japan, which readily leads us to suppose labor shortage, in particular for Australia with a wide land area and sparse population. As has been pointed out by Colin Clark in *The Conditions of Economic Progress*, industrialization is lagging in both countries and the dependency on agriculture is still appreciably high compared with West-European countries. Comparison of national income by industries between Japan and Australia is shown in Table 2, adapted from the above-said source (as for New Zealand data by the United Nation's statistical bureau will be considered later). The figures show a substantial approximation of industrial structure between Japan and Australia, only with a difference in the somewhat higher percentage of wholesale-retail trade on the side of Japan. It may well be appreciated by the figures that in Australia manufacturing holds a considerable weight in its national economy. Her manufacturing is, however, centered on the light industry, which makes the cause of high dependency on foreign trade.

Table 1

Country	National Income	Population	Per-capita Income	Rank
Japan (1965)	66160	97960	675	26 (1964)
Australia (1964)	17484	11136	1570	7
New Zealand (1964)	4161	2594	1604	6
Great Britain (1964)	75385	54231	1361	12
United States (1964)	517281	192120	2692	1
Sweden (1964)	15695	7661	2049	2
	(million dollars)	(thousand)	(dollars)	

Table 2. Composition of National Income by Industries (1964)

Industry	Japan	Australia
1 Agriculture, forestry, fishery	12.0	13.8
2 Mining	1.1	1.7
3 Manufacturing	29.4	27.8
4 Construction	7.0	7.7
5 Electric power, gas, water	} 9.2	3.4
6 Transport, warehouse, communication		8.0
7 wholesale-retail trade	17.2	14.1
8 Finance, insurance, real estate	} 8.5	3.0
9 Owned House		5.4
10 Administration, defense	4.6	3.8
11 Services	10.8	11.4

The degree of dependency on foreign trade in both countries is shown in Table 3. In New Zealand exports and imports respectively count about one-fourth of national income, a high rate, while they are not so high in Australia. In the Australian trade structure, however, exports of the primary industry constitute a major part, while an overwhelming portion of imports consists in industrial materials and equipment. This tells that expansion of trade and introduction of foreign capital are indispensable factors to promote Australian industrialization.

The growth rates of real national income in the three countries for the ten years 1955 to 1965 are:

Japan	9.5%
Australia	4.3
New Zealand	4.1

That Japan's rate is high seen internationally is well known. The rates of other two countries do not deserve to be called high even compared with EEC countries, and the growth is not steady as will be observed later. Also in these points there seem to lie some problems.

Table 3

Year	New Zealand			Australia		
	National Income	Exports	Imports	National Income	Exports	Imports
	<i>Y</i>	<i>E</i>	<i>J</i>	<i>Y</i>	<i>E</i>	<i>J</i>
1953	735	235	192	—	141	85
54	802	244	246	—	—	—
55	844	259	287	86	126	140
56	887	277	268	93	129	136
57	935	276	297	92	162	119
58	962	250	285	99	135	132
59	1038	293	231	110	134	132
60	1121	302	281	116	154	154
61	1157	283	287	119	155	181
62	1253	287	244	129	178	147
63	1377	327	296	144	178	180
64	1511	386	346	157	230	197
65	—	362	379	—	215	237
	(£ million)	(£ million)	(£ million)	(\$100million)	(\$ million)	(\$ million)

Table 4. Trade Structure of Australia (1964)

Exports (\$ thousand)		Imports (\$ thousand)	
Meat	20290	Industrial materials	101590
Butter	4560	Production equipment	39270
Wheat, flour	33690	Transport equipment	8010
Fresh fruits	2760	Fuels	4800
Dry fruits	1760	Consumption goods	35320
Sugar	13040	Food, tobacco	7650
Leather, hide	7640	Clothings	1390
Wool	80080	Materials	31160
Lead	4200	Semi-processed goods	27040
		Finished goods	139120

Next the proportional composition of distributed national income is as shown in Table 5. The composition in New Zealand broadly resembles that in Japan. But in Australia (1) employee's income has a large share, while personal proprietor's income small, (2) the share of government's income is large (this similar also in New Zealand). As the causes for the former phenomenon we can think of (1) modernized pattern of employment, that is to

say, petty owned enterprises are of small numbers, most occupied persons being hired; (2) high marginal productivity of labor due to its shortage; (3) high level of industrial structure. This last factor, however, does not appear to be working in view of the above-mentioned trade structure. And if the second factor alone is to be emphasized, the employee's share should be high also in New Zealand, but the reality is not so. Hence a further examination may be required on the inter-relations of these three factors.

Table 5. Composition of National Income (1964)

	Japan	Australia	New Zealand
1 Employee's income	53.7%	62.4%	57.8%
2 Personal proprietor's income	24.2	17.2	21.0
3 Personal property income	10.6	10.9	9.3
4 Transfer from corporate business to individual person	0.2		
5 Corporate reserves	5.9	5.4	4.0
6 Corporate tax and non-tax charges	5.0	4.6	6.4
7 Government's income from undertakings and property	1.2	4.3	4.6
8 (deduct.) Interests on government's debts	0.4	3.2	3.2
9 (deduct.) Interests on consumer's debts	0.3	1.6	

Next the composition of gross national expenditure is shown in Table 6. A high rate of propensity to consume is seen in both countries compared with Japan. The dependency on trade is higher than in Japan even in Australia, suggesting the heavy weight of trade. Contrastively the rate of fixed capital formation is somewhat lower than in Japan, which supposedly makes the reason for the difference in growth rate.

The relation between national income and consumer expenditure in Australia is presented by Table 7 and Graph 1. It is seen the propensity to con-

Table 6. Composition of Gross National Expenditure (1964)

	Japan	Australia	New Zealand
1 Personal consumption expenditure	53.5%	63%	63%
2 Government's purchase of goods and services	9.0	11	13
3 Domestic gross fixed capital formation	33.0	26	23
4 Increase in inventory	4.9	3	2
5 Exports of goods and services	10.1	16	24
6 (deduct) Imports of goods and services	10.3	18	23
7 Net income from abroad	△0.4	△2	△2

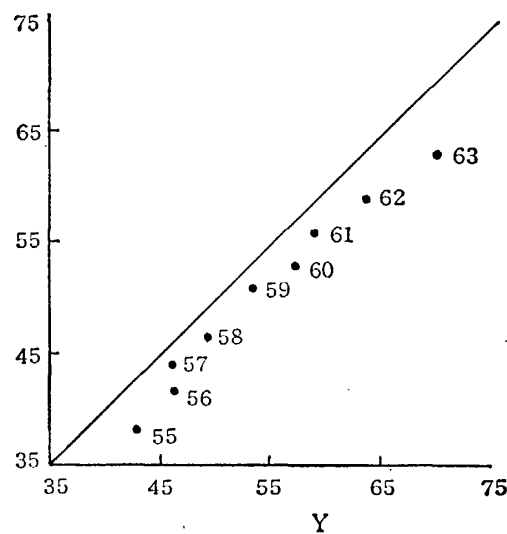
Table 7. National Income and Expenditure, Australia

Year	Y (national income)	C (personal consumption + government expenditure)	Money in Circulation	V (unemployment)
1955	4320	3864	3260	29
56	4680	4200	3260	81
57	4630	4400	3420	178
58	4930	4651	3336	268
59	5370	5100	3576	254
60	5750	5306	3551	160
61	5900	5594	3457	443
62	6350	5924	3525	439
63	6990	6358	3782	335
64	—	—	3990	170
65	—	—	—	125

(£10 million) (£10 million) (£10 million) (100 persons)

sume is higher than in Japan (though not necessarily high in comparison with European levels), notably for 1957~59 and 1961. There were some declines in 1962 and 1963, which, however, were not directly reflected in the money circulation. The money supply rather showed increase after 1962, hence a simple judgement of consumption inflation would be difficult to make. Unemployment showed a decrease in 1964 following the sharp increases of 1961~63. From these facts it seems that no clear-cut correlation exists between business fluctuation and personal expenditure.

Graph 1. Australia



The break-down of personal consumption expenditures is compared with that of Japan in Table 8 (data from the Bank of Japan, *Gaikoku Keizai Tōkei*

Nempō, 1964). It is natural that the percentage of food and drink is low due to the high level of per-capita income; but the rate of miscellaneous expenditures cannot be taken uncomparably high.

Table 8. Comparison of Personal Consumption Expenditures (1963)

	Japan	Australia
Food and drink	43.0%	32.3%
Clothings	8.4	10.8
Dwelling	13.4	17.1
Light and heat	3.3	2.8
Miscellaneous	30.9	37.0

3

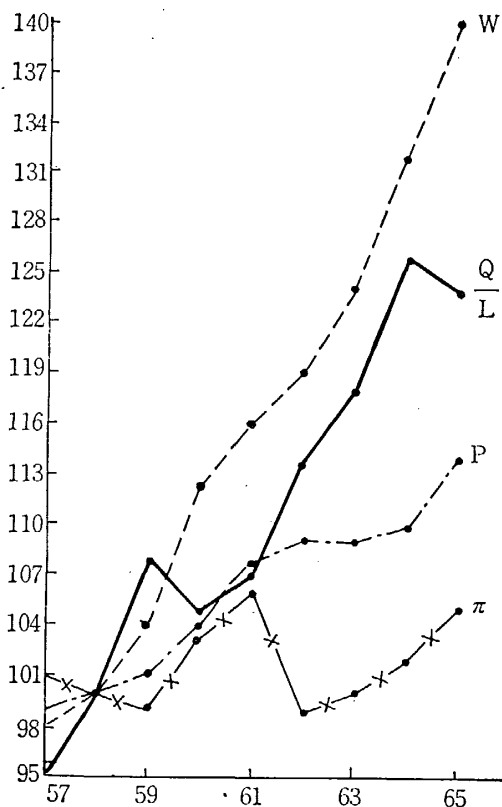
The descriptions above are, so to speak, a static observation. In the dynamic sense, what a pattern of change is being presented? Table 9 illustrates major economic indicators of Australia (data from the Bank of Japan, *op. cit.*). Substantial fluctuations are recognizable in the growth rate of nominal national income—not a steady growth. This is contrastive to EEC countries, resembling America in the apparent phenomena. Also changes in wholesale prices are appreciably furious—notably the drops in 1962 and others—reminding us the prewar pattern of economy. The rise in wholesale prices in the covered ten years was 10%, which cannot be said low in an international comparison; yet consumer prices registered a rise of as high as nearly 30%. In the advanced countries of the world today it makes a common phenomenon that wholesale prices are relatively stable while consumer prices are rising. But in Australia—not an advanced country—was there any particular cause

Table 9. Australia

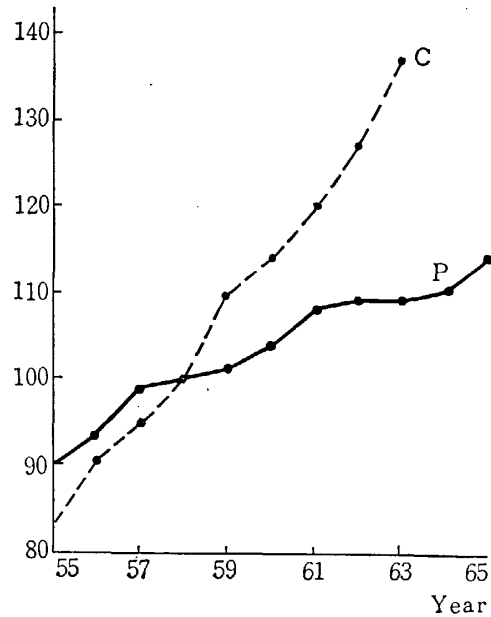
Year	National Income Y	Rate of Growth	Wholesale Prices π	Rate of Rise	Consumer Prices P	Rate of Rise
1955	86	— %	322	— %	102.6	— %
56	93	8.15	334	3.72	106.9	4.19
57	92	-1.08	344	3.00	113.1	5.37
58	99	7.60	339	-1.45	114.2	0.97
59	110	11.10	336	-0.88	116.0	3.33
60	116	5.45	348	3.58	118.9	2.50
61	119	2.58	360	3.45	123.8	4.12
62	129	9.17	336	-6.67	124.3	0.40
63	144	10.62	340	1.20	124.5	0.16
64	157	9.03	346	1.76	125.7	0.96
65	(\$100 million)		355	2.60	130.4	3.74

Year	Production Index Q	Employment Index L	Wage Index w	Productivity Q/L	π on Base Shift	P on Base Shift
1955	—	—	—	—	—	90
56	—	98	95	—	—	93
57	93	98	98	95	101	99
58	100	100	100	100	100	100
59	110	102	104	108	99	101
60	112	107	112	105	103	104
61	111	104	116	107	106	108
62	122	107	119	114	99	109
63	131	111	124	118	100	109
64	146	116	132	126	102	110
65	149 (manufacturing)	120	140	124	105	114

Graph 2. Australia



Graph 3.



for such an event? Wage inflation due to labor shortage is readily supposable, so we examined whether this impact can be seen. With respect to manufacturing, which makes the key to the Australia's economic development, we divided production indices by employment indices to obtain productivity indices, and contrasted these with money-wage indices (refer Table 9). Graph 2 is the

result.

Labor productivity dropped once in 1960 due to a steep increase in employment, but thereafter has shown smooth rises till 1964. On the other hand money wages have maintained a simple pattern of increase. Thus, taking 1958 for the base, this is obviously a "wage rise beyond productivity rise." This gap is not reflected in the wholesale prices but appears to have a correlation with the rise in consumer prices. For the rate of consumer price rise is low for 1961-64 when the productivity rise and the wage increase are parallel, while there is a sharp rise in 1965 with a decline of productivity. Then, in Australia does the basis actually exist for the law of market to establish itself? What are the relations between consumer expenditures and consumer prices? The comparison of the two is figured in Graph 3. The amplitude of fluctuation is larger for consumer expenditures than for consumer prices, but prior to 1961 there is clearly observed a positive correlation. After 1962 consumer prices are relatively stable in contrast to the fast increase in consumer expenditures. Did a remarkable change arise on the supply capacity of consumption goods? The production index of manufacturing showed a rapid rise after 1962, and that of agriculture sustained a steady growth after stepping out the stagnation of 1956-60. So it ought to be taken that the difference of growth between nominal consumer expenditures and production has constituted the inflation gap, while the relation between productivity and wages has worked to boost consumer prices as a back-scene condition.

4

Next, by what factors money wages have been determined? As is usual for an economy of labor-shortage pattern, it is impossible to say wages have been determined by labor productivity (see Graph 2). So a second thought is the correlation of wages to the rate of growth (this refers to the nominal growth rate since the real growth rate is rather meaningless where the changes in prices or money wages are under discussion), which is shown as the curves of Y (nominal growth rate) and w (wage-rise rate) in Graph 4. Assuming one-year precedence of Y against w , we can observe a correlation of some degree. However, the problem cannot stop at this point. For, unemployment is conceivable as a second factor to explain w . In Graph 4, it appears that some degree of negative correlation exists between the series of unemployment, U , and w . Our calculation brought about Table 10. Since the correlation coefficient is 0.737 we cannot say that the wage changes are fully explained by the growth rate and unemployment, yet the intense effects of these two factors may be recognized.

It is said that the fundamental cause for "slow inflation" consists in the "demand-preceding" pattern of economy. The Australians' attitude to investment is sound if amicably taken, but inactive if taken amiss; they do not go

Table 10

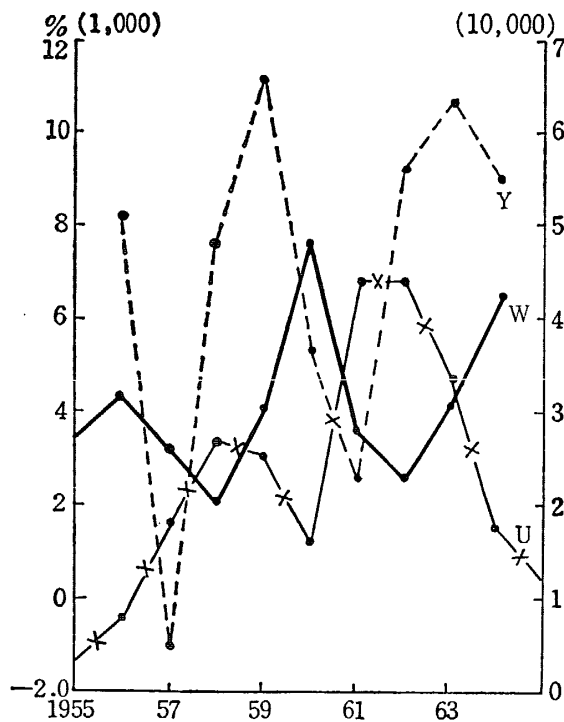
$y-1$	w	u	yw	wu	y^2	u^2	uy
+1.2	-1.3	-9	-1.56	+11.7	1.44	81	-10.8
-8.0	-2.5	0	+20.00	0	64.00	0	0
+0.6	-0.5	-2	-0.30	+1.0	0.36	4	-1.2
+4.1	+3.2	-11	+13.12	-35.2	16.81	121	-45.1
-1.5	-0.9	+17	+1.35	-15.3	2.25	289	-25.5
-4.4	-1.9	+17	+8.36	-32.3	19.36	289	-74.8
+2.2	-0.3	+7	-0.66	-2.1	4.84	49	+15.4
+3.6	+2.0	-9	+7.20	-18.0	12.96	81	-32.4
+2.0	+1.6	-14	+3.20	-22.4	4.00	196	-28.0
			+50.71	-112.6	126.02	1110	-202.4

Year	Consumption Expenditure Index	Wage Rise Rate	Agricultural Production Index	
1955	83.0	3.41%	97	$50.71 = 126.02a - 202.4b$ $-112.6 = -202.4a + 1110b$ $w = 0.4661y - 0.0397u$ $r = 0.737$
56	90.2	4.30	104	
57	94.5	3.16	105	
58	100	2.04	99	
59	109.5	4.0	119	
60	114.0	7.7	119	
61	120	3.57	123	
62	127.0	2.58	127	
63	137.0	4.20	133	
64		6.45	140	
65		6.06	144	

into investment until any increase in demand shows a definite sign of permanence. This has resulted in the shortage of productive capacity as against demands, hence the existence of the law of market. In fact the business fluctuations in this country have mainly been due to her balance of payments.

According to the exposition by the Labour Ministry, the determination of wages in concrete has been as follows. In the view of the Vice-minister, labor unions are acting to boost wages gearingly. Until 1953 wages were automatically stepped up in accompany with any rise in the consumer price index. After 1957 there has been organized a mediation committee on labor problems by which the capacity of economy has been taken into account. In reality, however, actual determinations have been based sometimes sheerly on price rises, sometimes on slidings for prices of import goods. In every year adjustment has been made at year-end. At present the wage-price spiral cannot be said to have completely disappeared (the bankers circles say the price rises in the immediate-postwar period were demand-pull but today they are cost-push, and the same view was expressed by a professor of Sydney University), but for the recent twelve years since August 1957 no warnings

Graph 4.



of danger have been proclaimed by the Mediation Committee, for example, as to manufacturing. For the effort of raising productivity mainly financial and physical measures have been taken; there is no institution like the Japan Productivity Center. As to rural products the policy covers financial and taxation aspects. Mechanization is progressing on a fairly high tempo. There are many enterprises closely linked with abroad, through which introduction of technology has been undertaken in a large measure from Britain, America or Japan. Importation of foreign capital goods of better quality is also intended, but the fundamental cause impeding productivity rise is the shortage of skilled workers, hence job shift is endeavored.

The labor shortage has persisted for the past twenty years—a condition under which 70% of workers change jobs once a year. The pay system comprises first basic pay, beside which there are differential wages. The basic pay is calculated on the basis of living pay and the differential (between skilled and unskilled) amounts to about 14% of it. For the same job of the same kind of work, no higher pay is provided even in firms of higher profit. Differentials by regions are recognized. Sometimes a brake is put on wage increase for the reason of boosting export prices. On average it takes about two weeks before a retired worker can find another job, although a longer time will be necessary if he has to move residence from countryside to town. There is no long-run plan about wage rise. Work time is 40 hours a week. Over-time work is seven hours a week on average, and over-time pay for Saturday and Sunday counts 2.5 times the normal rate. (From these remarks

it is supposed that labor morale is not high among Australian workers.)

5

How is the state of mechanization for productivity improvement? The Australian economy is depending on agriculture and the light industry, so to speak resembling Japan's industrial structure of the 1920's. The heavy

Table 11. Comparison of Income Tax, Australia and Japan (1966)

Deduction	Australia	Japan
Basic deduction	A\$ 416	A\$ 344
For spouse	286	314
For child under 16 years old (in Japan under 13 years old)	1st child 180 others 130	144
For student 16-21 years old	182	150
For invalid over 16 years old	182	
For dependent parent	286	
For house-keeper	286	
For medical expense, health insurance, contributions, life insurance, dotages		
For educational expense	provided	none
For local taxes, fixed assets tax	provided	none
For injured, and student worker	none	provided
Rates		
Taxable Income	Tax	
\$ 500	\$ 9.63	\$ 45.92
1000	54.83	110.68
1500	125.87	188.60
2000	217.81	289.43
3000	462.78	520.42
4000	771.31	791.93
5000	1140.10	1097.95
6000	1506.90	1428.93
8000	2392.50	1670.00
10000	3402.50	2968.92
12000	4502.50	3868.75
16000	6818.50	5718.93
20000	9234.50	7718.93
32000	16830.51	16582.68
50000	(no progression)	23968.92
100000		55235.00
150000		89344.00

1 Australia dollar=400 yen

Table 12. Income Distribution in Australia

Income x	Persons	N	$\log x$	$\log N$
\$ 200 & over	166 thousand	4653	2.3010	3.6678
400	187	4487	2.6021	3.6519
600	210	4300	2.7782	3.6335
800	238	4090	2.9031	3.6117
1000	257	3852	3.0000	3.5742
1200	290	3595	3.0792	3.5557
1400	288	3305	3.1461	3.5194
1600	290	3017	3.2041	3.4782
1800	329	2727	3.2553	3.4341
2000	349	2398	3.3010	3.3798
2200	326	2049	3.3424	3.3116
2400	282	1723	3.3802	3.2363
2600	240	1441	3.4150	3.1587
2800	189	1201	3.2030	3.0796
3000	511	912	3.4771	2.9600
4000	262	401	3.6021	2.6031
6000	71	139	3.7782	2.1430
8000	30	68	3.9031	1.8325
10000	32	38	4.0000	1.5798
20000	4	6	4.3010	0.7782
30000	2	2	4.4771	0.3010

industry will possibly show development if and when population increase enables the large-scale economy to work, particularly being helped by the recent discovery of iron and copper reserves which are being considered as a hope for the future. Yet at present the economy is merely an oligopolistic one, and that on a bring-up stage relying on protective tariffs. Financial and banking measures for protection are being given to export, and special provisions to plant import. Primarily in Australia fiscal policies take precedence over banking policies. For the aim of the demand-supply balance and the adjustment of external payments generally fiscal policies are utilized, banking measures being only for controlling the bank system. Fiscal policies also play a leading role in the business-cycle countermeasures. As a means of the business-cycle countermeasure red-ink bonds are issued, but no plan of redemption is provided. Such bond issue is conducted only from a viewpoint that business policies should precede fiscal balance, lacking in long-term planning. The precedence of fiscal policy over banking policy may be realized by a fact that 65% of red-ink bonds are accepted by banking institutions and 35% by personal absorption. The yield of blue-chip corporate debentures is 7%, which cannot be said unfavorable. The Finance Ministry says that introduction of foreign capital for industrialization is welcome, but on this point the standpoint of banks may be delicate. The rates of income tax are shown in Table 11.

The rates are higher than in Japan for some income strata, but the differences must be discounted for comparison since there is no local income-allocated tax such as seen in Japan. No progression is imposed for some highest classes because few persons come under them, suggesting evenness of income distribution. By the Pareto curve of distribution shown in Table 12, however, no larger evenness is recognized as compared with Japan.

6

What judgement on economy are being made by Australians themselves? Let's see *The Australian Economy*, 1965 edition, a government's publication. The economy of 1963/64 was a fortunate one, the book says. Unemployment decreased despite a sharp increase in labor force. Export prices rose, while domestic prices remained stable. Hence in the coming year labor shortage is to be expected, while industries will have to secure additional equipment and materials from abroad. On the other hand demands will show a rapid increase over last year. Accordingly there will be shortage of resources and a need of increased imports. The foremost factor determining economic growth is industrial production, especially in durable consumer goods and chemical products. The growth rates in fuels and energy as well as steel and textile goods have been stable. The year 1964/65 saw a draft in the eastern districts but 1965/66 will be a good year for agriculture. Construction is maintaining its rapid growth. If the growth rate of last year is sustained for this year, problems will arise on man-power. 1964/65 had a multitude of immigrants. Unemployment will show a further decline; age-limits for retirement have been prolonged; over-time work has been increased. Furthermore a vast expansion of equipment is on the progress, resulting in a continuous increase in investment and other outlays. Also government's expenditures are increasing at a pace half that of private expenditures, comprising defense and capital outlays. Doubtlessly these phenomena are exerting an unflagging pull on resources.

Also on the aspect of the balance of external payments 1963/64 was one of the best years. It is desirable that again the coming 1964/65 becomes so, but some sorts of export prices have already reached levels not easy to sustain. Wool and sugar are declining in price, metals and coal are rising, and useful gains are emerging in daily necessities and meat. The largest factor to change the position of balance of payments is the increase in imports, the cause lying in the buoyant home demands and want of resources. In the capital account inter-governmental transactions have been generally balanced for the past one year.

Throughout 1963 the fiscal and banking policies were on an expansive basis. The favorable exports pushed up financial liquidity. For the first three months of 1964 the Reserve Bank raised the deposit reserve rate for commercial banks. Thereafter interest rates have been on the rise. Money cir-

ulation has increased by 7.7% and the Statutory Reserve Deposit has been utilized to stabilize banks' liquidity. As the result the rise in liquidity has not been so high compared with the increased demand for capital.

Again in the aspect of world economy 1964 was a year of favorable trade and production, but at the close of the year major industrial countries saw a decline in growth rate, which weakened the demand for primary products. In the coming year (says the book after describing situations of America, Britain and European countries) the growth in industrial countries is expected to recover on a steady basis. To speak of Australia, its primary products have connections with the growth of world economy. Its exports have had cyclical changes in the past, to which is now added the problem of international payment position. While European countries have improved their balance of payments, America and Britain are still in the deficit. Thus, on piling up these factors, prediction for 1965 is made in the book.

Capital inflows from abroad make an important factor of the Australia's economic growth. To speak from the national-economic viewpoint, an increase in capital expenditure will cause shifts of resources through the effects of progressive taxation and autonomous saving. Now America and Britain, the principal capital-exporting countries to Australia, are going to check capital outflows. Capital inflows from abroad, of whatever type, can be supposed to bring about additional resources. Withdrawals of already invested capital work as a dis-stabilization factor to the Australian economy. Investors of America and Britain have been given complete freedom, which is now about to be restricted. A question may be presented (the book says), in view of the frictions between the profits of foreign capital and the local opinions against them, that any participation by Australians to foreign enterprises could make countermeasures to cope with the controls by foreigners. This question must be answered negatively because such participation would create no addition to national resources. Yet it may be of significance in the sense of profit distribution, and to this extent may satisfy the local opinions.

7

The descriptions in *The Australian Economy* (a White Book) as summarized above may be said to have carved in relief the problems implied in the country's economy. Next let's look at *Treasury Information Bulletin* (White Paper on Public Finance). In 1966/67 the deficit of the Commonwealth (to be covered by borrowing) amounted to 535 million dollars. This is larger than the deficit of 284 million dollars in the preceding year, although there were increases in both receipt and outlay. Of this deficit, 306 million dollars were financed by net loan proceeds, 91 million by drawings on the credit account of American military aid, and 138 million by other borrowings (see Table 13). Details of individual items are described in the White Paper, but here it will

suffice to observe the outline of budget structure. A glance at the table may reveal the heavy weight placed on the "outlays to states." It is said that in the administrative mechanism of this country the state's power is strong, the central government working only indirect influences through fiscal expendi-

Table 13. Public Finance Expenditures (million dollars)

	1965/66	1966/67
Defense	748	950
Outlays to states	1117	1218
Outlays to national welfare funds	942	1031
Charges for bonds	142	94
Other outlays to specified purposes	215	215
Administrative expenses	290	346
Other services	194	219
Repatriation service	254	251
Public enterprises	334	373
Railway	14	17
Postal service	279	340
Broadcasting	40	46
Territories	107	123
Capital work and services	434	472
State works and housing programmes	599	625
War service land settlement	6	6
Total expenditure	5380	5923
Revenues (million dollars)		
Taxes	4147	4413
Customs duty	272	277
Excise duty	751	806
Sales tax	369	379
income tax (personal)	1160	1324
Other income tax	571	599
Corporate tax	801	785
Dividend tax	17	23
Pay-roll tax	162	172
Asset tax	36	42
Donation tax	6	8
Public enterprises	458	490
Railway	18	20
Postal service	402	431
Broadcasting	38	40
Territories	25	24
Other revenues	250	300
Bond sinking funds	202	132
Net increases in other trust fund balance	47	28
Total revenue	5129	5388

tures such as defense. Such structure is reflected here. The proportion of defense expenditure is considerably large.

By the way in September 1965 an Economic Advisory Committee, with Mr. Vernon as chairman, was organized to set forth a vision of long-run planning, which is meaningful in respect of the criticism against the excessive dependency on foreign economies and trapclap policies. (The following review of the Committee's report is based on the introduction by *the Current Affairs Bulletin*). By the words of official circles the Committee's views have not always been approved by the government nor actually put into practice. But the intention to give a character of planning to this country's economy can well be called epochmaking. This event originated from the defeat of the Menzies Government in the 1961 election due to the dissatisfaction of the mass against the government's measures taken at the occasion of serious recession of 1960/61. Insecurity was produced to this country by the Britain's approach to EEC and the slowness of business recovery in 1962. In addition the economic plannings of Britain and France were reported to people to make a stimulus. The Menzies Government was stubbornly opposed to long-range planning but some economic advices, if only fact-finding and once, became necessary for the aim of tariff policy. That the tasks of the Committee were thus limited is apparent in the following words: "It should be kept in mind that the aims of Government's economic policies consist in the economic growth and population increase of high rate, as well as stabilization of production costs and prices while maintaining full employment and improving standard of living." Thus in the Committee's Report there are studied population, man-power, development of basic resources, increase of domestic savings, trend of overseas investment, favorable pattern of growth, location of industries, import replacement and export prospect, and further discussions are made on the effects on the resource allocation and the said aims to be worked by direct and indirect taxes including customs duty. The Committee is composed of three business-men and two economists.

The Report has two characteristic features. The first is its wide scope of study; the second is the model analysis based on econometric method (so says CAB). The model analysis has intended predictions on the growth, possible impacts to arise from growth, and necessary measures, referring these to various variables. The prediction extends over a period up to 1974/75, with focus on GNP and gross national expenditure. The growth rate of GNP is based on the rate of natural growth of population plus immigration of 100 thousand persons per annum. Furthermore the rise in labor productivity is taken account, dividing industries into four groups—agriculture, mining, manufacturing and others—and presuming a constant weight of employment among them.

On these assumptions man-power will grow at a rate of 2.7% per annum, and labor productivity at 2.3%. Hence the growth of GNP, which has been

4% for the past ten years, will rise to 5%. Next examination goes to whether corresponding demands will exist, and whether the export target necessary for the balance of external payments will be attained. Third, comparison has been made on the demand and supply expected to be realized in each industrial sector, thereby the Committee has concluded that some troubles will arise for the attainment of 5% growth. That is to say, the expected production will require a vast amount of capital, savings be too small, imports exceed exports, and employment in the tertiary industry increase its share, by which the fields with expectable productivity rise be narrowed.

The Committee, however, does not think these difficulties as insuperable. The first-mentioned difficulty, i.e., lack of savings to meet capital formation, can be evaded by a 1-2% step-up in the rate of saving to GNP. The deficit in the balance of payments could be covered by borrowings from abroad but these—the committee judges—will be difficult in the near future. So expansion of export, notably of manufacturing products, constitutes an important problem of policy. The third difficulty concerns unbalance among sectors. Structural changes favorable for productivity improvement require corresponding changes in the market structure, that is, changes in the absolute prices and the basic conditions of production and consumption. Recognition of these changes, however, would contradict the initial assumptions. Thus it has been concluded, "Attainment of 5% growth is not easy but not impossible provided adequate policies are taken."

8

A criticism against this Report in the *Current Affairs Bulletin*, March 1966, is as follows. The Report is grounded on the change of age composition in the Australian population. In the 1950's younger generations were of small numbers due to the low birth rates in the 1930's. This gap may have been filled in the 1960's by virtue of the postwar baby boom. The problem now is not how to find jobs for people, but how to expand capital equipment at a rate faster than the increase in labor force so that labor productivity may not decline. This would possibly exceed the supply of resources in short-run, deriving inflation or an excess of imports. Again the target of immigration is too large.

Also the long-run forecast of balance of payments is too pessimistic—a fault common to economists. For example, an attack seems inescapable to the Committee's judgement that the increase in the export of mining products by 1974 will be only 165 million pounds. The same can be spoken also with the import replacement of oil. Still more room for argument exists on the inflows of foreign capital. The Committee, while acknowledging the important contributions by foreign capital to the Australia's economy, maintains that "A policy to induce foreign capital is no more unable to secure results," and

"The concern of Australia is rather that the average amount of annual inflows will not reach recent levels."

These projections are attacked (by CAB) as "ludicrously alarmist." The assumption (in the Report) of 8% capital profits is too high compared with the past rate of 6%. The Report's rate may be backed by the decreased payments of income to abroad due to the recession of 1961, yet it is unconceivable that foreign investors are satisfied with it. Anyhow the projection is but a simple arithmetic example, implying no method of forecasting. True, payments of income to abroad will increase unless inflows of new capital are limited. However, capital raising has now become more difficult than was in the past due to the recent restrictions on capital outflow enforced in Britain and America. Hence, even if there is a need of limiting capital inflow, a discriminative policy ought to be adopted so that necessary investments for Australia might not be impeded.

And, what ways are being contemplated to level up the rate of social saving? The Committee recognizes that productivity rise cannot be attained to the full extent of capital formation. However, organizational or technological advances would enable to reach the goal with fewer expenditures of capital, while the more the domestic savings, the lesser would the danger of inflation become and the pressures on the balance of international payments, hence the dependency on foreign investments in the long-run.

According to the CAB, the highlights of the Report comprise the following points. First it says, "Deliberate and rapid development of northern Australia is desirable for the society, where higher profits could be expected than in other districts." Second the Report warns against imprudent investment of large money in irrigation work. The third point is regional diffusion of planning; developments only in limited areas contradict national economic interest. The fourth is utilization of skilled female workers, and the fifth is the problem of high transport costs due to the monopolistic organization of foreign shipping enterprises. The sixth is liberal policies to assist the developing countries.

Next the CAB refers to the problems of money, finance and wage policies, although these are not the focuses of Report. In the chapter of "Availability of Finance" shortage of finance is recognized only with agriculture and house construction, for which a need of "fringe banking institution" is acknowledged. In the chapter of "Costs, Prices and Wages" it is discussed that any rise in nominal wages over productivity rise is contrary to price stabilization, as has been asserted by many economists of Australia and European countries. The Mediation and Arbitration Commission could greatly affect nominal wages but not control real wages. As to customs duties the Report says as follows. "The protective tariff on manufacturing products has brought about favorable results to the economic growth of Australia. It is not realistic to weigh its cost in comparison with the case of imaginary free trade. For,

in case of non-tariff, the nation's balance of payments could be maintained only by devaluation of exchange rate." For these reasons the Committee negates the possibility of free trade and supports the maintenance of discriminative tariff system.

Explanation is not so detailed as to the problem of long-run planning. "The government can take actions to sustain full employment, physical growth potentiality and population increase, but it cannot ensure productivity rise within individual enterprises, private capital formation of high rate, or long-term investment planning." At the end of Report there are illustrated the methods of long-run planning being recently employed in Western countries, of which those of Britain and France are rejected by the Committee as unsuitable to the circumstances of Australia. The method of Canada is taken more preferable and adaptable.

The broad line of Vernon Report, and the criticisms by CAB, are as above described. Its recommendations were not accepted by the government on account of the target of immigration—100 thousand persons per annum for several years in future. The Prime Minister said on September 21, 1965, that "The 5% growth could be achieved only by willing pulls of resources from one region to another." Yet the Report served to build the target of foreign investments and to organize an Advisory Council on Economic Growth. Since the war-end the planning of economic policies had been under exclusive charge of the Finance Ministry, with some revisions on commercial policies being made by the Trade Ministry. The official circles held doubts about the possibility of long-run planning since they had been feeling difficulty in policy decisions even for several months ahead.

The elapse of time is not yet long enough to judge whether or not the

Table 14. Recent Economic Indicators of Australia

	1964/65	1965/66
National income	\$ 15800 million	\$ 16431 million
do, growth rate		3.9 %
Wholesale prices	355	371
do, rate of rise		4.5 %
Consumer prices	130.4	135.2
do, rate of rise		3.7 %
Weekly pay (adult male)	\$ 40.04	41.08
do, rate of increase		2.6 %
Natural population growth	123 thousand	
Immigration	104 thousand	83 thousand
End-year total population	11449 thousand	11540 thousand
Employment of manufacturing	3604 thousand	3704 thousand
Industrial production index	149	160
Labor productivity	100	104.5
do, growth rate		4.5 %

projection in the Report conforms to the reality. Yet the economic indicators for 1965 to 1966 are as shown in Table 14. In 1966—a year of recession—the nominal growth rate registered only 3.9%, nominal rate almost nought if price rises are taken into account. Immigrants were 80 thousand persons—below the required 100 thousand—hence insufficient to remedy the labor shortage. Yet the productivity rise in manufacturing was appreciable, exceeding the rise in nominal wages. So it may be supposed that the phenomenon of cost-push, avowed by many people concerned, will turn toward a solution. Of course it is unreasonable to criticize a long-run planning on the basis of some certain years, and in this case an overall appreciation is impossible since the plan was not accepted by the government, yet even these limited results may serve as a material to check its reality.

9

Now let's observe the New Zealand's economy. Table 15 shows its national income by industries for 1954—somewhat old figures but this year provides complete data. The agriculture-forestry-fishery industry accounts for the largest portion, larger than manufacturing. Since in addition the rate of tertiary industry group (wholesale-retail trade, services, etc.) is fairly high, one cannot speak of an economy of high-grade structure. By the 1958 figures, the sum of private and public consumption expenditures makes up 88% of GNP, a high propensity to consume. This is due to the smallness of equipment-capital formation reflecting the lowness of industrial structure. The capital

Table 15. National Income of New Zealand

Industrial Sector	Composition (%)	Item	Value (£ million)
1 Agriculture, forestry, fishery	22.0	1 Private consumption expenditure	765
2 Mining	1.0	2 Public consumption expenditure	138
3 Manufacturing	21.7	3 Domestic gross fixed capital formation	243
4 Construction	7.1	4 Increase in inventory	10
5 Electric power, gas, water	2.2	5 Exports of goods and services	285
6 Transport, communication	9.1	6 (deduct) Imports of goods and services	291
7 Wholesale-retail trade	15.7	Expenditure to domestic gross product	1150
8 Finance, insurance	4.0	7 Net factor income from abroad	-13
9 Owned house	3.8	Expenditure to GNP	
10 Administration, defense	2.4	(1958)	1137
11 Services	11.0		
Domestic GNP at factor prices (1954)	899 (£ million)		

formation is broken down into industrial sectors as seen in Table 16. Private owned-house construction ranks top, while manufacturing is not of so large amount. Government constitutes 38.6% telling its big role.

Table 16 (1954, million pounds)

Fixed capital formation	207	9 Owned house	48
1 Agriculture, forestry, fishery	22	10 Administration	17
2 Mining	1	11 Services	15
3 Manufacturing	33	Increase in inventory	39
4 Construction	6	Domestic gross capital formation	246
5 Electric power, gas, water	21	Fixed capital formation	
6 Transport, communication	20	Private	130
7 Wholesale-retail trade	14	Public	82
8 Finance, insurance	10		

Table 17 presents incomes and expenditures in the private sector. The smallness of savings is noticeable, corresponding to the said smallness of fixed capital formation. Of the gross dividend national income 59.8% is accounted for by employee's remunerations, a rate higher than in Japan reflecting a modernized pattern of employment and perhaps a high level of labor productivity. The growth rate of nominal national income is shown in Table 18; relatively steady growth—although with a few exceptional years of depression such as 1958 and 1961—and appreciably high after 1959. Alike with most advanced countries the rate of rise in wholesale prices is higher than in retail prices. Whether it has been derived from demand-pull or cost-push may need a further examination. Wholesale prices have shown relatively high-rate rises from 1962 to 1964, which appear to have a correlation with the high-rate increase of nominal national income, yet prior to this period the rates were low. As to retail prices the rises seem to be more levelled than in wholesale prices.

A fact to be noticed here is that, in contrast to the case of Australia, no phase of cost-push is apparent either in statistical data or in the words of the circles concerned. On the data of Table 19, (adapted from New Zealand Statistics Bureau, *Pocket Digest of Statistics*, 1967), the relations between productivity, wages and prices are figured in Graph 5. It is seen that after

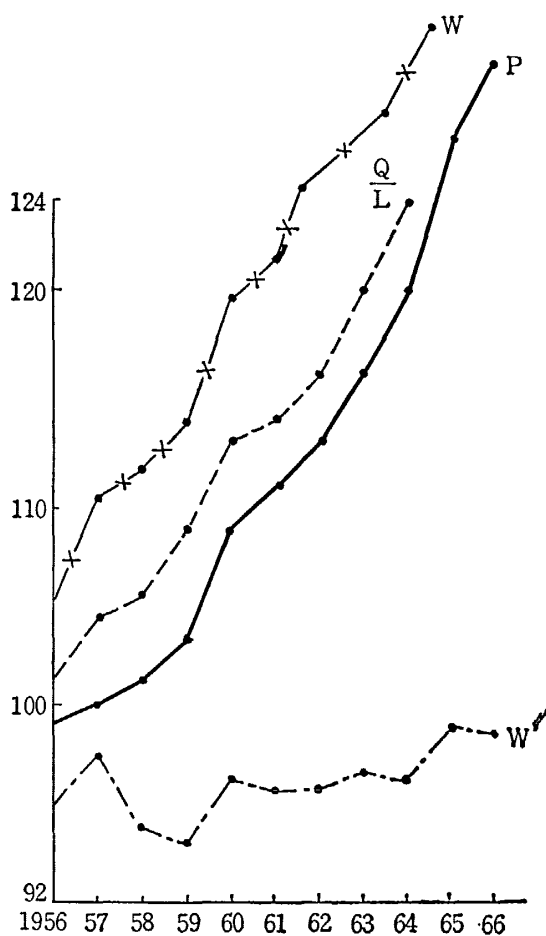
Table 17. Incomes and Expenditures in New Zealand (1958)

Distributed national income £ 962 million		6 Government's income	3.8
1 Employee's income	59.8%	7 (deduct) Bond interest	2.9
2 Non-corporate enterprise income	22.9	Gross national expenditure	£942 million
3 Property income	7.9	8 Consumption expenditure	81.1%
a Rent, interest	5.1	9 Direct taxes	17.8
b Dividend	2.8	10 Current transfer to abroad	1.0
4 Corporate savings	3.3	11 Savings	£34 million
5 Corporate taxes, etc.	5.5		

Table 18. New Zealand

year	National Income	Rate of Growth	π	Rate of Rise	P	Rate of Rise
1953	735	%	92	%	84	%
54	802	9.1	92	0	88	4.8
55	844	5.2	93	1.1	91	3.4
56	887	5.1	96	3.1	94	3.3
57	935	5.4	97	1.0	96	2.1
58	962	2.9	100	3.1	100	4.2
59	1038	7.9	102	2.0	104	4.0
60	1121	8.1	101	0	105	1.0
61	1157	3.2	102	0	106	1.0
62	1253	8.3	102	0	109	2.8
63	1377	9.9	105	2.9	111	1.8
64	1511	9.7	110	4.8	115	3.6
65			111	0.9	119	3.5

(Values in million N. Z. pounds)

Graph 5. W' (nominal wages)

1956 the rises in real wages are moderate despite the productivity rises, while no remarkable gap seems to exist between the steep rises of nominal wage rates and the productivity. Rather the rises of both productivity and wages are parallel if roughly, and hence cannot explain the rises in consumer prices. (It is said that the relation between productivity and wages observed nationally is taken up as a reference material in wage negotiation but is not particularly discussed as a problem of individual industries—a state similar also in Australia.) Consumer prices have risen at an appreciable tempo on the statistical figures but no strong feelings of price rise seem to exist contrastively to the case of Australia. This has been explained by the government's subsidies to consumer prices—as a feature of the fulfilled social policies conforming to the self-acknowledged high-level welfare state—which, however, have resulted in the pressures on

public finance and further on the balance of external payments and, we hear, come to sustain a big liquidation in 1967. Table 20 presents some international comparisons of food-stuff prices (as of 1966) obviously telling how low are prices in New Zealand.

Table 19. New Zealand

year	Production Index <i>Q</i>	Employment Index <i>L</i>	Productivity Index <i>Q/L</i>	Wage Index <i>W</i>	Consumer Prices <i>P</i>	do, Index	Unemployment <i>U</i>
1954	100	100	100				
55							
56	106	104	102	96.2	78.6	100	
57	112	106	105	98.5	79.1	101	
58	115	108	106	95.4	80.0	102	
59	119	109	109	93.5	81.4	104	
60	127	112	113	97.5	85.5	109	633
61	131	114	114	97.3	86.9	111	
62	135	116	116	97.2	89.0	113	1040
63	143	119	120	97.9	91.5	116	849
64	152	123	124	97.5	94.3	120	650
65				100.0	100.0	127	513
66				99.7	102.5	130	463

Table 20. International Comparison of Food-stuff Prices

Item	Unit	New Zealand (25 cities)	Australia (Sydney)	Britain (London)	America (non-tax)
Bread	2 lb	6 c	14 c	15 c	33 c
Flour	25 lb	68	153	116	219
Tea	1 lb	68	49	59	—
Coffee	"	86	74	—	58
Sugar	"	6	8	7	9
Milk	1 quart	8	18	17	19
Butter	1 lb	20	41	41	64
Cheese	"	41	34	32	64
Bacon	"	60	75	48	61
Plum	"	32	—	20	—
Canned plum	30-oz tin	38	25	25	—
Beef (stake rib)	1 lb	40	41	40	66
Mutton (shank)	"	34	24	—	—
Pork (shank)	"	44	48	42	—
Pork chop	"	15	42	58	76
Margarine	"	—	31	20	21

(in N. Z. dollar, 1 N. Z. dollar=500yen)

10

Wage differentials are very narrow due to labor shortage. Below are data from the Unilever Company (producer of food and crazer with 1,200 employees, a big factory in New Zealand) in Wellington.

	Weekly Pay	
	Award Company	Unilever
Class 1	\$ 29.1	\$ 30.4
2	30.4	31.8
3	32.4	33.3
4		34.7
5		36.1

Thus the differential between class 1 worker (unskilled) and skilled worker is insignificant. This seems to have a connection with morale of working. It is no wonder that in a country with high standard of living—rank fourth of the world in 1967—and well-established system of social security willingness of toiling is feeble. (Under the said social security system, however, the old age pension—to be paid at age 65 for male and 60 for female after age-limit retirement—is not so high since it is 7 shilling 6 pence per one pound of pay at the time of retirement. To the endowment life insurance on voluntary contract, substantial subsidies are given by the government, providing security for old age. Herein we can recognize an effort of evading the evil equality.)

Owing to these situations there is much evenness of income distribution. Graph 6 compares the distribution in this country with that in Japan for 1961. Income-holders of less than 1000 dollars (per annum) are very small numbers, while those with an extraordinary high amount do not seem to exist. It is said that among New Zealanders behavior to earn more money by over-time work is weaker than among Australians.

The tax burden is as shown in Table 22. It does not seem that any larger progression among rates is in effect as compared with the case of Japan. (In the table a zigzag move is observed in the rate progression. This is because the figures are actual data by income strata and do not specify the numbers of dependants and other relevant conditions.) The tax exemption line in 1967 is 850 thousand yen for a couple and three children, somewhat higher than in Japan. The marginal highest rate is 67%. Thus a "heavy tax" is spoken, but it is lower than in Japan since there is no tax resembling our local resident's tax. Insofar as the above is concerned, the New Zealander's living seems to be very comfortable. To speak of the price of estate, it is said a lot in the suburbs of Auckland (the largest city in New Zealand with population of 550 thousand—a scale as large as Hiroshima or Sendai) costs about 5,000 yen per *tsubo* (3.3sq. meters); a house for middle class family with ground of

Table 21. New Zealand Income Distribution (1961)

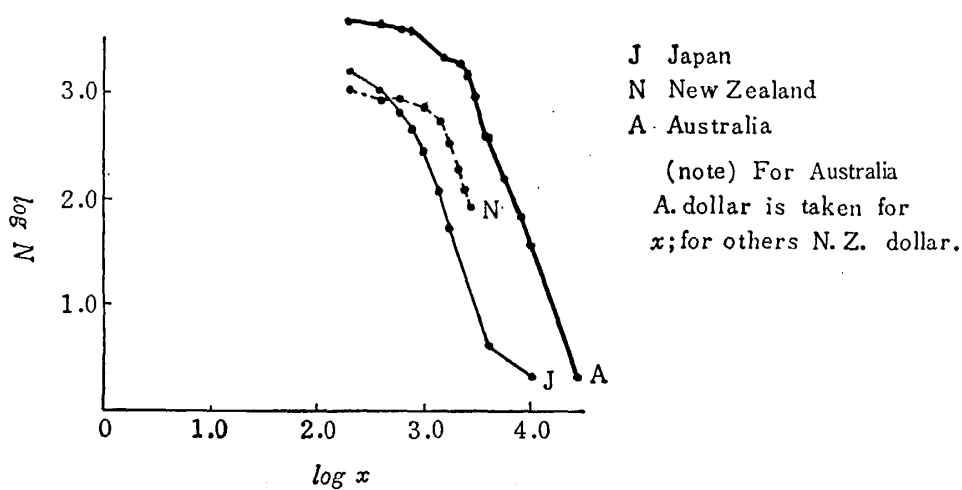
Income x	Persons	N	$\log x$	$\log N$
0	1364			
\$ 200 or less	75	1037	0	3.0157
600	102	962	2.3010	2.9832
1000	146	860	2.7782	2.9345
1400	154	714	3.0000	2.8537
1800	197	560	3.1461	2.7482
2200	158	363	3.2552	2.5599
2600	81	205	3.3424	2.3118
3000	38	124	3.4150	2.0934
\$ 3000 or over	86	86	3.4771	1.9345

Japan (1961)

Income x	Persons	N	$\log x$	$\log N$
\$ 0 or over	295(10000)	1830	0	3.2625
\$ 200 or over	509	1535	2.3010	3.1861
400	349	1026	2.6021	3.0111
600	241	677	2.7782	2.8306
800	156	436	2.9031	2.6395
1000	162	280	3.0000	2.4472
1400	61	118	3.1461	2.0719
2000	53	57	3.3010	1.7559
4000	2	4	3.6021	0.6021
10000	2	2	4.0000	0.3010

(data by National Tax Agency)

Graph 6. Pareto Curves



200 *tsubo* is about 5 million yen. Thus at least in the past the living in this country has been stable and peaceful. But in 1967 an economic crisis attacked the people. What was the reason?

Table 22.

Income Class	Aggregate Income Y	Aggregate Income Tax T	T/Y
\$ 200 or less	8.4	0.3	0.036%
400	18.8	0.7	0.037
600	27.2	1.3	0.048
800	48.7	2.7	0.055
1000	68.1	4.2	0.062
1200	81.2	6.3	0.078
1400	86.0	8.0	0.093
1600	113.8	11.6	0.102
1800	147.1	15.5	0.105
2000	169.6	18.7	0.110
2400	348.7	40.7	0.107
2800	242.7	31.2	0.129
3200	151.4	21.7	0.143
3600	91.9	14.5	0.158
4000	65.2	11.3	0.173
6000	178.5	37.0	0.207
8000	78.2	20.9	0.254
10000	33.8	11.0	0.326
\$ 10000 or over	65.7	25.2	0.384

(fiscal 1962/63)

11

The New Zealand's economy has a high grade of dependency on external relations. A reasoning for checking wage rise in labor-management negotiation—in which the labor unions have a strong voice by virtue of labor shortage—has been that it may invite cost-push, boost export prices, and deteriorate payments balance. On this external balance is now lighted a red lamp. The cause for it lies in the industrial structure. In Table 23—the interindustry relations table for 1954/55, a year of better economic conditions than in today—noticeable is the large weight of agriculture-forestry, in which wool constitutes a major part.

Now the export price of this wool has drastically been declining since 1965, as seen in Table 25. The major reasons are as follows. (1) New Zealand's wool is mainly used for carpet in contrast to that of Australia and its demand has relatively decreased due to the world-wide popularization of substitute stuffs. (2) The devaluation of Argentine peso has lowered the export

Table 23. Input-Output Transactions, 1954-55.

£ (million)

Input		Industrial Sectors																	Final Demand				Total Output
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17					
Output	Farming	68.6	0.1	—	—	136.7	28.5	—	—	—	0.1	0.3	2.2	22.8	1.4	65.5	2.4	1.6	330.2				
	Forestry and logging	1.0	—	—	0.1	—	7.1	—	—	—	—	—	—	0.5	0.4	—	—	—	9.1				
	Hunting, fishing, etc.	—	—	—	—	0.1	0.2	—	—	—	—	—	—	1.1	1.3	1.2	—	—	4.2				
	Mining	—	—	—	—	0.9	3.0	4.1	1.1	1.2	—	0.2	0.7	1.7	0.2	0.5	—	—	13.6				
	Manufacturing, primary produce processing	1.4	—	—	—	2.0	8.8	—	—	0.2	0.1	0.3	1.6	20.0	—	136.9	3.9	—	175.2				
	Manufacturing, other	28.8	0.9	0.5	1.9	1.8	83.1	47.0	2.2	14.8	12.2	3.8	16.0	218.6	4.5	18.8	10.9	32.5	498.3				
	Building and construction	1.0	—	—	0.2	0.4	4.4	—	0.3	1.8	0.5	5.1	1.8	5.4	15.8	0.1	3.7	117.1	157.6				
	Public utilities	1.2	—	—	0.1	0.7	3.6	0.2	0.3	0.3	1.8	0.5	2.3	11.3	2.1	—	-0.1	—	24.3				
	Transport and communications	7.9	0.2	0.1	1.3	5.3	11.8	7.6	0.4	5.7	22.6	2.9	4.1	25.3	4.6	17.6	—	5.0	122.4				
	Wholesale and retail trade	14.8	0.2	0.2	0.5	0.9	14.2	13.3	2.1	4.2	3.2	2.8	4.4	132.5	0.9	17.7	12.0	9.4	233.3				
	Banking and insurance	2.8	0.1	0.1	0.2	0.5	6.1	1.3	0.2	1.8	8.3	3.1	5.5	25.0	2.5	3.1	—	—	60.6				
	Services	4.9	—	—	0.2	0.6	5.5	0.7	0.2	1.3	9.8	4.3	20.1	68.6	52.1	3.0	—	—	171.3				
	Primary Inputs																						
	Net domestic output	13	172.7	6.3	2.9	8.0	20.6	160.3	601.8	14.7	69.8	138.8	31.3	94.8	29.8	21.8	-5.9	—	8.6	835.3			
	Rest of world—imports	14	10.9	0.7	0.3	0.5	2.8	114.3	20.0	1.6	9.8	4.9	1.3	9.4	65.8	15.9	1.8	6.6	32.8	299.4			
	Net indirect taxes	15	0.4	—	—	—	—	35.9	—	-0.4	2.1	21.9	0.5	4.9	2.1	—	—	—	—	67.4			
	Depreciation	16	13.8	0.6	0.1	0.6	1.9	11.5	2.6	1.6	9.4	9.1	4.2	3.2	3.8	—	—	—	0.1	62.5			
Total input		330.2	9.1	4.2	13.6	175.2	498.3	157.6	24.3	122.4	233.3	60.6	171.3	634.3	123.5	260.3	39.4	207.1	3064.7				

price of its wool, with the same quality as New Zealand's wool, resulting in a shift of demand to that country. (3) Formerly Great Britain bought New Zealand's wool to some extent irrespective of price differences with other countries' wool because this country was a constituent of the Commonwealth economic sphere. Now with the Britain's worsening balance of payments and the weakening relations among the Commonwealth Conference Nations—which makes a condition of Britain's joining EEC—New Zealand is being obliged to step out of such reliance on Britain, yet exportation to other areas is conditioned by the said factors (1) and (2). Thus due to the deteriorating payments positions, restrictions on import and overseas travelling are becoming inevitable, while consumer-price subsidies are being abolished in a wide range in order to avoid their effect upon wages and export prices, the effect being increased by the restraints on imports through the tight money policy. The banking policies, which in this country are said more important than fiscal policies, are mostly enforced by the government, the role of the central bank being not so essential. The share of banks in providing industrial money is generally low, although some effects by the tight money policy are recognized on the restriction of construction activity and so forth. Influential banks comprise the Bank of New Zealand (under government's management), the Bank of New South Wales, Australia and New Zealand (with home office in Australia), the National Bank of New Zealand (home office in Britain), and the Commerical Bank of Australia, suggesting also in this aspect of finance a high dependency on Britain or Australia. The rate of saving among New Zealanders, 23%, is to not to be said low but, since the people are aware of the weak positions of New Zealand's economy, most deposits are placed on the banks of home Britain consequently causing a worry of capital outflow. With the banks' share in industrial money supply being small and that of insurance companies and smaller-scale financial firms being large, monetary controls are difficult to enforce.

Under these conditions it is natural that a money devaluation is spoken of. It is for one thing because of the weakening of the New Zealand's economy itself, and for another from a fear that a possible devaluation of the British pound might affect this country. The former reason is of course negated by the government as well as bank circles (from their standpoints) but as to the latter many business-men recognize that "if Britain devaluates, we will be unable to maintain our exchange rate." This is contrary to the case of Australia. Governor of the Commonwealth Bank, Sydney, asserted to us (though with some sense of propagation) that the ground of Australia's economy had been reinforced by the discovery of mineral resources and other reasons and, although Britain's devaluation might work effects, the extent of devaluation of the Australian pound would be smaller than the British pound notwithstanding a fact that a large portion of Australia's exchange reserves was taking form of the British pound. This is also a point suggest-

ing the distinction between the two countries.

In Australia industrialization is expectable to some extent, though largely in the light industry, while in New Zealand it is only "just beginning."

Table 24

year	GNP Y	Personal Consumption C	Government Consumption G	$C+G$
1956	1,965	1,279	249	1,528
57	2,061	1,329	274	1,603
58	2,184	1,447	287	1,734
59	2,270	1,463	302	1,765
60	2,434	1,477	324	1,801
61	2,622	1,721	346	2,067
62	2,721	1,798	363	2,161
63	2,924	1,887	395	2,282
64	3,200	2,028	416	2,487
65	3,489	2,167	459	2,626
66	3,759	2,397	494	2,885

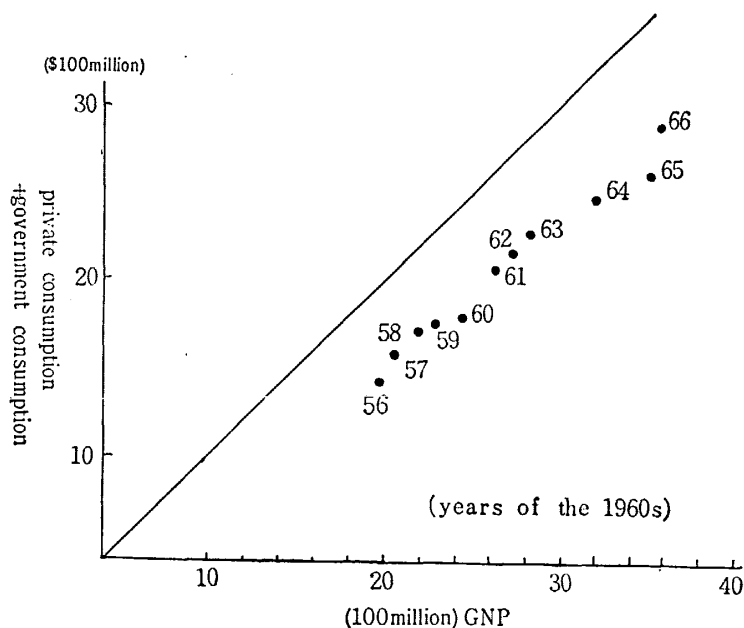
(Values in 100 million dollars)

Table 25. Trend of Export Prices

year	Daily Necessaries	Meat	Wool	Total
1959	102.9	103.6	84.3	95.5
60	115.9	95.3	103.1	105.4
61	92.7	99.2	94.8	95.7
62	97.2	90.5	93.0	93.8
63	104.8	100.3	100.3	100.8
64	110.0	106.6	127.0	113.8
65	118.5	122.6	98.7	111.9
66	113.6	118.7	97.2	110.8

Any effect of a devaluation unaccompanied by structural changes of economy is only temporary, while the price elasticity of demand for wool seems not large. Of course New Zealanders are aware of this, yet structural changes are not to be achieved overnight. Then a ready thought is tourism. (The situation resembles, to seek an example in Japan, the case of Hokkaido if and when it were separated from Japan proper to become independent.) Indeed resources for tourism are rich, with beautiful scenery and hot springs which are lacking in Australia. However, the population of Australia itself is scarce, and travellers from other lands are difficult to expect much because of too long distances.

Graph 7



The Ministry of Industry and Trade say they wish export of material stuffs to Japan and import of machinery, etc., but this is being impeded by the deficit in the balance of payments. As for future prospect, trade with Japan will become more desirable if Britain joins EEC. (At present Japan's imports amount four times the exports.) By the views of business circles generally import of hydraulic power plant, agricultural machines, spinning and weaving machines and computer is being wanted. However, even if spinning and weaving machines are imported, there lies a big obstacle to industrial development, i.e. labor shortage. They say entry of workers, even for a short period, is not permitted because of strong oppositions by the labor unions, except some specified kinds of skilled laborers. Supposedly herein lies a factor obstructing development.

The fundamental obstacle to growth is the scarceness of population, only 2,600 thousand persons in a land of average two-thirds that of Japan. Hence effective demands are insufficient to provide basis of the heavy-chemical industry which affords the advantage of large-scale economy. Recently the steel industry is being projected following the discovery of iron sand, yet it is a bring-up projection from a viewpoint of national policy, far from commercial basis. The government has a projection of population as shown in Table 26, but any increase of this scale would be inadequate to construct the heavy-chemical industries. (If the same density as that of Hokkaido is assumed, population would count 20 millions, a size that would render industrialization in a full sense possible.)

If the progress of industrialization cannot meet expectations, a second course is a conversion in the sorts of agricultural produce. A shift of trade

Table 26. Projection of Population

	Population	Labor Force
	(actual)	
1960	2,370 thousand	876 thousand
65	2,640	989
	(projected)	
70	2,927	1,116
75	3,244	1,235
80	3,608	1,360
85	4,016	1,483
90	4,452	1,647

structure is of immediate urgency, that is, trade centering on wool for (not carpet) clothing, dairy products and wood.

To this problem of industrial structure, the labor problem has a close connection. The labor economy in this country has a phase resembling that of Australia. Also in this country the scarceness of population is impeding economic growth from the sides of both effective demands and labor force. A point different from Australia is that few arguments are heard of the phenomenon of cost-push owing to the government's subsidies to consumption goods. (Consumer prices, however, have been on the gradual rise, so reality and consciousness are not always conforming.) By the words of various people on wage determination, the rate of wage rise has been affected by (1) the rate of economic growth and (2) potential rises in export prices. Direct measuring of the second factor is difficult (unless a certain relation is assumed between the actual and potential changes of export prices). In this context another conceivable factor is the increasing unemployment which may, or may not, work as a check to wage rise, similarly as in Australia. In order to clarify this we tested the correlations between w (wages), Y (nominal national income) and U (unemployment) taking data from the government's statistical yearbook as shown in Table 27. As to Y we adopted values based on market prices for the purpose of including the behavior that wage rise follows consumer-price rise. In applying the regression equations, however, we found that the regression coefficient between U and w takes plus sign—obviously contradicting a priori inference. This is due to the rise in money wages in, for example, 1962 and 1963 when there was an increase in unemployment. This may be said a phenomenon quite different from the case of Australia. The same can be spoken also by the plus sign of w - U correlation, though the value is a low of 0.159. The correlation between Y and w extremely high, telling that in this country money wages have been determined almost exclusively by the growth rate (a Y -preceding pattern with one-year lag). However, whether this inclination will continue or not poses a problem in respect of the above-described difficulties

facing the New Zealand's economy, while the future moves of the growth rate itself may require attention.

Table 27

year	Unem- p- ment u	Nomi- nal Wages w	Nomi- nal Natio- nal In- come Y^*	Δw	Δu	ΔY_{-1}	$\frac{\Delta w}{\Delta Y_{-1}}$	$\Delta w \Delta u$	$\frac{\Delta Y_{-1}}{\Delta u}$	$(\Delta w)^2$	$(\Delta u)^2$	$(\Delta Y)^2$
1955	(thousand) —	—	(\$ million) 1738	—	—	—	—	—	—	—	—	—
56	1	105.5	1833	-17	-5	-60	+1020	+85	+300	289	25	3600
57	4	110.5	1915	-12	-2	-51	+612	+24	+102	144	4	2601
58	4	111.7	2026	-11	-2	-42	+462	+22	+84	121	4	1764
59	12	113.7	2104	-9	+6	-31	+279	-54	-186	81	36	961
60	6	119.5	2266	-3	0	-24	+72	0	0	9	0	576
61	3	121.4	2438	-2	-3	-7	+14	+6	+21	4	9	49
62	8	124.5	2517	+2	+2	+10	+20	+4	+20	4	4	100
63	9	128.0	2704	+3	+3	+16	+80	+15	+48	25	9	256
64	6	132.0	2968	+9	0	+36	+324	0	0	81	0	1296
65	6	140.1	3239	+17	0	+63	+1071	0	0	289	0	3969
66	4	143.7	—	+21	-2	+90	+1890	-42	-180	441	4	8100
Av.	6	123	2340				5844	+60	209	1488	95	23272

* at market prices

$$5844 = 23272a + 209b$$

$$60 = 209a + 95b$$

$$a = 0.24226 \quad b = 0.98607$$

$$\Delta w = 0.24226 \Delta Y_{-1} + 0.98607 u$$

$$r_{yw} = 0.994$$

$$r_{wu} = 0.159$$

$$r_{yu} = 0.445$$