

A Measure of the Incidence of the Costs of Structural Change: The Experience of Birthplace Groups in the Australian Labour Force during the Seventies*

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During the 1970s there were some marked shifts in the occupational composition of the Australian workforce. It is sometimes argued that these had a particularly adverse effect on migrants. However we conclude that the structural pressures of the early 70s had only a minor impact on the relative labour market performances of different birthplace groups in Australia. The analysis involves the construction of a measure of the incidence of the costs of structural change. The correlation between this measure applied to birthplace groups and various indicators of their labour market performances is found to be low.

1 Introduction

Modern economies are continually undergoing structural change. Changes are continually taking place in the occupational compositions of their workforces, the geographical distributions of their populations and the industrial compositions of their GDPs in response to, among other things, technical change, changes in industry assistance, capital accumulation and changes in world commodity prices. Structural changes are of little concern during periods of rapid overall growth when all sectors of the economy are achieving positive growth rates and intersectoral shifts of existing resources are not required. However, in a period

of low overall growth, such as that currently being experienced in Australia, structural change may require committed resources to be transferred to alternative uses. These transfers may involve resources becoming idle for lengthy periods, imposing serious costs on the possessors of particular labour skills and on the owners of specific types of capital.

In low growth periods it is often argued that the costs associated with structural changes are borne very unevenly across different groups in the community. Inevitably, some groups are disproportionately represented in the ownership of resources (skills and capital) which are displaced by structural change. Thus, for example, Stricker and Sheehan (1981, ch.8) have argued that migrants in the Australian workforce have suffered relative to non-migrants from the structural changes of the seventies. This is because migrants are over-represented in occupations and industries having declining shares in total employment.

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In Section II of this paper we define a simple measure which can be used as an indicator of the incidence of the costs of structural change. Then in Section III we apply this measure in an examination of the effects on different birthplace groups in the Australian economy of shifts in the occupational composition of the workforce from 1971 to 1976. Our calculations support Stricker and Sheehan's conclusion that structural change impinged more heavily on migrants (especially those from southern Europe) than on non-migrants. On the other hand our calculations do not support the argument in Stricker and Sheehan (1981, especially pp.167 and 174) that structural change was an important determinant of the relative performance in the Australian labour market of different birthplace groups. We find little correlation between our measure of the impact of structural change on the different groups and indicators of their labour market performances such as changes in their rates of unemployment and their rates of participation.

II A Measure of the Incidence of the Costs of Structural Change

This section describes our measure of the incidence of the costs of structural change. Our approach is based on two key assumptions. The first is that in recessionary conditions job opportunities are of paramount importance. Thus, we assume that a structural change adversely affects community group 1 relative to group 2 if the structural change limits group 1's job opportunities relative to those for group 2. Second, we assume that the main mechanism by which structural change affects the allocation of job opportunities across groups is by changing the occupational composition of the demand for labour.¹

¹ Alternatively we could have assumed that structural change affects the allocation of job opportunities across groups through changing the industrial composition of the demand for labour. This was the approach adopted by Eccles (1980) in her study of the effects of structural change on employment prospects for males and females. In our view changes in the employment prospects for a community group are more closely tied to changes in the demands for the occupational skills possessed by the group than to changes in the demand for labour by industries in which members of the group happen to be employed. Another interesting issue to explore would be the incidence of the costs of structural changes which occur when there is a change in the regional composition of the demand for labour.

With these assumptions in mind, we start the derivation of our indicator of the costs of structural change with the identity

$$N_b = \sum_{j=1}^n S_{bj} Q_j N \quad (1)$$

where N_b is the number of people in employment belonging to community group b , N is the total number of people employed, Q_j is the share of total employment accounted for by occupation j , $j=1, \dots, n$, and S_{bj} is the share of the employment in occupation j accounted for by group b . The basis for the groups, b , could be age, sex, educational attainment or a variety of other characteristics. In our application (Section III) people are classified according to birthplace.

Next we express (1) in change form as follows:

$$\begin{aligned} \Delta N_b = & \sum_{j=1}^n (\Delta S_{bj}) \bar{Q}_j \bar{N} + \sum_{j=1}^n \bar{S}_{bj} (\Delta \bar{Q}_j) \bar{N} \\ & + \sum_{j=1}^n \bar{S}_{bj} \bar{Q}_j (\Delta N) \end{aligned} \quad (2)$$

where ΔN_b , ΔS_{bj} , ΔQ_j and ΔN are changes over a period T (1971 to 1976 for example²) in N_b , S_{bj} , Q_j and N . Equation (2) is an approximation which is satisfactory for small changes. The accuracy of the approximation is usually increased substantially if the Q_j , N and S_{bj} appearing on the right-hand side are evaluated at midpoints rather than at starting values. Midpoint evaluation is indicated by the bars. Thus, for example,

$$\bar{Q}_j = (Q_j(I) + Q_j(F)) / 2$$

where $Q_j(I)$ and $Q_j(F)$ are the initial and final values for Q_j .

There are some obvious reasons, which we will consider later in this section, for doubting whether the three terms on the right-hand side of (2) should be treated as though they are determined independently of each other. However, setting these doubts aside for a moment, we can say that the first term is the change in the employment of group b arising from changes in b 's share of the employment available in each occupation; the third term is the change in group b 's employment arising from the change in the aggregate level of employment; and the second term, on which our

² Alternatively, ΔN_b , ΔS_{bj} , etc., might be forward projections from an economic model.

main interest will be focused, is the change in b's employment arising from changes in the occupational composition of the demand for labour. We express this last-mentioned term as a percentage of group b's midpoint employment level. This gives

$$c_b = 100 \sum_{j=1}^n W_{bj} \Delta Q_j \quad (3)$$

where

$$W_{bj} = \bar{S}_{bj} / (\bar{N}_b / \bar{N}) \text{ for all } b \text{ and } j. \quad (4)$$

The c_b 's are our indicators for the period T of the incidence of the costs of structural change.

For thinking about the properties of the c_b 's it is convenient to note that $\sum_j \Delta Q_j$ is zero so that (3) may be rewritten as

$$c_b = 100 \sum_{j=1}^n V_{bj} \Delta Q_j \quad (5)$$

where

$$V_{bj} = W_{bj} - 1. \quad (6)$$

V_{bj} is a measure of group b's relative concentration in occupation j. It will be zero if group b holds the same share of the jobs in occupation j as it holds in total employment. It will be positive if group b is relatively concentrated in occupation j. For example, V_{bj} will be +1 if group b holds 10 per cent of the jobs in occupation j ($\bar{S}_{bj} = 0.1$) while holding only 5 per cent of the total number of jobs ($\bar{N}_b / \bar{N} = 0.05$). On the other hand, if group b is under-represented in occupation j, then V_{bj} will be negative. Thus, the c_b 's will be negative for groups whose employment is concentrated in occupations with declining shares of total employment, while they will be positive for groups whose employment is concentrated in occupations with increasing shares. The groups with the largest negative c_b 's are those we would expect to be worst affected by structural change while the groups with positive c_b 's are those we would expect to be least adversely affected.

As indicators of the incidence of the costs of structural changes, the most attractive feature of the c_b 's is that they require a minimal data base. They can be computed for any set of changes, ΔQ_j , $j = 1, \dots, n$, in occupational shares providing we have suitable information on employment classified by occupation. Given the modesty of these data requirements, it is not surprising that the c_b 's suffer many shortcomings. Before describing our application of the c_b 's, we briefly list some of their limitations.

The first problem is that the coverage of the c_b 's may be too narrow. They fail to reflect losses of physical capital or to attach any weight to movements of workers between industries and regions. Even if we accept the coverage of the c_b 's, they may nevertheless be biased by the choice of occupational classification. If the classification is too broad, then they may miss important differences in the impact of structural changes on the various community groups arising from shifts in the composition of employment at the sub-occupational level. If the classification is too fine, then the c_b 's may exaggerate the impact of structural changes on some groups by attaching weight to the displacement of workers who can be absorbed easily into very closely related occupations. A final difficulty worth mentioning is the one alluded to earlier in this section: it may not be legitimate to treat the three terms on the right-hand side of (2) as though they are independently determined. Consider, for example, the possibility raised by Sheehan (1981, p.19) that 'sharp changes in industry structure may have a direct impact on ethnic shares, perhaps because of the last on/first off principle or for other reasons'. What this suggests is that technical change, changes in industry assistance and other changes causing shifts in the industrial (and hence occupational) composition of the demand for labour may also cause shifts in the birthplace shares in each occupation. In other words, where we are dealing with birthplace groups, our c_b 's may be misleading indicators of the relative impacts of structural change. Forces which are usually identified as causes of structural change may affect ΔN_b in equation (2) not only via the second term on the right-hand side but also via the first. This possibility can be examined empirically and will be discussed further in Section III. It may also be true that technical change, changes in industry assistance, etc., affect ΔN_b via the growth term (term three on the right-hand side of equation (2)). However, this would not invalidate the c_b 's as indicators of relative impacts. Subject to a small approximation error, the growth terms expressed as percentages of their \bar{N}_b 's are all equal to the percentage growth in total employment ($100 \Delta \bar{N} / \bar{N}$).

III The Effects of Structural Change on Birthplace Groups in the Australian Labour Force, 1971-76

In this section we report an application of our c_b 's to the study of the effects of structural

change on birthplace groups in the Australian workforce. Our application is concerned with propositions discussed by Stricker and Sheehan.

In their book, Stricker and Sheehan (1981, ch.8) cite statistics for the period 1973 to 1979 showing that compared with Australian-born workers, migrants (especially those from southern Europe) suffered higher unemployment rates, had a lower rate of growth of employment and experienced a relative decline in their rate of workforce participation. Stricker and Sheehan argue that the relative deterioration in the labour force position of migrants can be attributed largely to structural changes accompanying the post-1973 recession. In particular, they note that a higher proportion of migrants than Australian-born workers are employed as tradesmen, process workers and labourers, and that these occupations lost share in total employment. Correspondingly, Australian-born workers are relatively concentrated in the white-collar occupations which gained an increased share of total employment. For our purposes, it will be convenient to divide the Stricker-Sheehan argument into four propositions:

- (i) migrants bore a disproportionate share of the costs of structural change in Australia during the seventies;
- (ii) among migrants, those from southern Europe were particularly adversely affected;
- (iii) the relatively adverse effect of structural change on migrants resulted from their overrepresentation in the blue-collar occupations; and
- (iv) the uneven incidence of the costs of structural change was an important determinant of the relative labour market performances of different birthplace groups in the Australian workforce.

To examine these propositions we computed c_b 's for the 11 birthplace groups shown in Table 1 for the period 1971 to 1976 using Census data for the two years. Since most of Stricker and Sheehan's analysis relates to the period 1973 to 1979, our conclusions will not be completely comparable with theirs.³ In attempting to extend our study beyond 1976 using data from labour force surveys⁴ we found extreme volatility in the recorded employment levels for many occupa-

tions in successive surveys. This indicated problems associated with sample size and perhaps changes in the occupational classifications. Even with the Census data there were classification problems. We adopted a 71-order occupational classification derived from the Minor Groups in the *Classification and Classified List of Occupations* (CBCS, June 1971) and *Occupation Classification Extract* (ABS catalogue no. 2114.0). To improve comparability between the data for 1971 and 1976, it was necessary to aggregate Dentists and Doctors in 1971 and to distribute Apprentices to all other occupations in 1976. For both years the group Inadequately Described Or Not Stated was distributed to all other occupations.

TABLE 1

*Indicators of the Incidence of the Costs of Structural Change: Percentage Changes in Employment Prospects by Birthplace, 1971-76**

Australia	0.66
UK and Eire	- 0.51
Italy	- 5.09
Greece	- 5.89
Yugoslavia	- 5.96
Poland	- 3.63
Netherlands	- 1.54
Malta	- 4.70
Germany	- 1.73
Other Europe	- 1.93
Other Countries	1.40
All birthplaces	0.00
All overseas-born	- 1.83

* The indicators are the percentage changes that would have taken place from 1971 to 1976 in employment by birthplace on account of changes in the occupational composition of employment if total employment for the economy and birthplace shares in each occupation had remained constant. The indicators are the c_b 's computed according to equation (3) using data from the Census of Population and Housing, 1971 and 1976.

The values for the c_b 's are shown in Table 1. These support Stricker and Sheehan's propositions (i) and (ii). The c_b 's can be interpreted as meaning that structural changes increased employment opportunities for Australian-born workers by 0.66 per cent whereas employment opportunities for migrants were reduced by 1.83 per cent with the reductions for Italians, Greeks and Yugoslavs being between 5 and 6 per cent. This interpretation of the c_b 's is based on the assumed independence of the determinants of the three

³ Some remarks on the 1976 to 1979 period are contained in an earlier version of this paper, Bonnell and Dixon (1982).

⁴ *The Labour Force, Australia*, ABS number 6203.0.

terms on the right-hand side of equation (2). It is possible to test for at least one source of dependency: that which would exist if changes in the occupational composition of employment affected ethnic shares, perhaps, as mentioned earlier, because of last-on-first-off hiring policies. If migrants were first off, especially newly arrived migrants, then we would expect to observe increases in the shares of employment in declining occupations accounted for by Australian-born workers. Table 2 lists for 1971 and 1976 the shares of the main birthplace groups in all occupations in which there was a reduction in employment over the period. In the 22 declining occupations, the Australian-born share increased in 11 and decreased in eleven. Overall, the Australian share of the declining occupations increased by only 0.12 percentage points from 65.36 per cent to 65.48 per cent. In the seven occupations experiencing employment losses of more than 20 per cent, the Australian-born share increased in four and decreased in three. Correspondingly, the table reveals no systematic tendency for migrant groups to lose share in declining occupations. Migrants from the UK and Eire gained share in 12 out of the 22 declining occupations and Italian, Greek and Yugoslav migrants gained share in ten, seven and 15 respectively. The overwhelming impression from Table 2 is that birthplace shares in declining occupations changed very little.

The table gives no suggestion that migrants have suffered disproportionate share of the job losses in the declining occupations.

Data relevant for the examination of Stricker and Sheehan's proposition (iii) are set out in Table 3. Full detail is given for the blue-collar occupations (40-60) which are the focus of the proposition. Convenient aggregates are given for the other occupations. Column I shows the percentage changes ($100 \Delta Q_j / \bar{Q}_j$) in the shares of occupations in total employment. For columns II-VI we have calculated for the largest birthplace groups

$$c_{bj} = Q_{bj} 100(\Delta Q_j / \bar{Q}_j), \quad (7)$$

where c_{bj} is the share of birthplace group b's employment accounted for by occupation j. The Q_{bj} 's were calculated according to the formula

$$Q_{bj} = \bar{s}_{bj} \bar{Q}_j \bar{N} / \bar{N}_b.$$

On referring to (4) we see that

$$Q_{bj} = W_{bj} \bar{Q}_j.$$

Hence the Q_{bj} 's are a partitioning of c_b with

$$c_b = \sum_{j=1}^n c_{bj} \text{ for all } b.$$

c_{bj} can be interpreted as the contribution of the change in the labour force share of occupation j to employment for birthplace group b. In accordance with proposition (iii), the c_{bj} 's show that the unfavourable effects, noted in Table 1, of structural change for migrants arose from the relatively heavy concentration of their employment in blue-collar occupations. For example, consider occupation 40 (spinners and weavers etc). Table 3 shows that the decline in this occupation reduced employment for Yugoslav-born workers by 7 times as much in percentage terms as for the Australian-born. The share of occupation 40 in aggregate employment fell by 38.86 per cent. Because the percentages of Yugoslav- and Australian-born workers in spinning were 2.60 and 0.37 respectively, the contributions of the reduction in the share of spinners to employment opportunities for these two birthplace groups are shown in Table 3 as

$$c_{Yug,40} = -0.3886 \times 2.60 = -1.02$$

and

$$c_{Aus,40} = -0.3886 \times 0.37 = -0.14.$$

For examining proposition (iv) we set out in Table 4 the c_b 's from Table 1 together with the percentage changes in the working-age populations for the 11 birthplace groups from 1971 to 1976 and three indicators of labour market performance emphasized by Stricker and Sheehan. Column III gives the first of these indicators, the percentage changes in employment. It is clear that the number of Australian-born workers in employment grew at a faster rate than the number of foreign-born. While Australian-born employment grew by 11 per cent, employment of workers from some of the main migrant groups actually fell. In total, migrant employment grew by 7 per cent. For the second indicator, the percentage changes in employment rates, column IV shows very little variation across birthplace groups. Changes in migrant employment rates were similar to those for Australian-born workers. In all cases, the rate of employment fell by between 2.21 and 3.65 per cent. In more familiar terms, this means that the increases in unemployment rates were between approximately 2.21 and 3.65 percentage points. The third indicator, the percentage changes in labour force participation rates (column V), shows considerable variation

TABLE 2
Declining Occupations 1971 to 1976: Birthplace Shares and the Percentage Changes in Employment

Occupation	Percentage change in employment 1971-1976	Birthplace Shares									
		Australia		UK and Eire		Italy		Greece		Yugoslavia	
		1971	1976	1971	1976	1971	1976	1971	1976	1971	1976
15. Book-keepers	- 3.54	78.08	76.44	11.42	11.24	0.92	1.22	0.24	0.70	0.25	0.43
19. Commercial travellers	- 5.19	79.45	78.93	12.70	12.56	0.58	0.74	0.16	0.21	0.13	0.16
23. Wool classers	- 58.06	93.51	95.03	3.26	1.55	0.42	0.55	0.16	0.19	0.16	0.00
24. Hunters and trappers	- 46.52	95.00	93.98	2.13	2.84	0.18	0.00	0.00	0.00	0.00	0.00
26. Timber-getters, etc.	- 16.58	88.14	88.90	3.68	3.97	2.07	1.76	0.23	0.28	1.71	1.43
27. Miners	- 6.90	75.16	76.32	10.01	10.51	2.13	1.68	0.71	0.52	2.20	1.92
28. Well drillers,	- 21.39	74.58	76.46	9.73	9.10	0.94	1.15	0.00	0.23	0.76	0.92
30. Deck engineers, etc.	- 8.38	55.85	56.02	29.47	29.66	0.30	0.38	0.15	0.19	0.24	0.32
37. Telephone, etc.	- 3.73	83.51	82.41	10.74	11.16	0.52	0.62	0.15	0.15	0.16	0.16
40. Spinners, weavers, etc.	- 28.93	45.94	47.64	8.31	8.55	11.38	10.14	11.17	8.68	6.48	7.44
41. Tailors, cutters, etc.	- 10.20	48.67	47.59	7.77	8.23	13.83	13.68	10.38	9.72	3.76	4.08
42. Leather cutters, etc.	- 29.81	56.16	53.54	7.25	7.19	10.30	11.15	8.94	8.17	4.43	5.72
43. Furnacemen, rollers, etc.	- 22.45	59.45	58.58	14.97	15.08	5.09	4.89	2.35	2.11	4.40	5.01
47. Metal workers, n.e.c.	- 7.56	49.26	48.45	14.98	13.53	6.45	6.22	5.72	5.14	5.69	6.58
49. Painters, decorators	- 1.33	57.29	59.61	15.52	14.45	5.50	5.45	3.08	2.73	3.66	3.80
51. Compositors engravers, etc.	- 5.61	73.75	73.41	12.50	12.25	1.68	1.76	1.19	1.10	0.87	1.08
52. Potters, kilnmen, etc.	- 16.52	52.89	53.38	13.01	14.28	6.95	5.94	5.24	4.06	6.29	5.90
54. Chemical, sugar workers, etc.	- 19.17	61.16	61.95	17.40	16.15	3.85	3.62	2.58	1.72	1.99	2.49
57. Packers, wrappers, etc.	- 22.88	63.65	64.93	11.76	10.59	4.87	4.96	3.68	3.17	3.79	3.40
65. Barbers, etc.	- 6.13	71.71	72.14	6.62	6.76	8.06	8.10	2.95	2.55	1.15	1.38
66. Launderers	- 10.96	65.41	63.75	7.92	8.14	7.60	7.12	4.77	5.69	2.86	3.24
71. Armed forces	- 6.10	81.22	81.02	11.52	12.13	0.59	0.26	0.12	0.04	0.16	0.17
All declining occupations	- 9.66	65.36	65.48	11.64	11.47	4.99	4.75	3.58	3.14	2.60	2.79

Source: Census of Population and Housing, 1971 and 1976.

TABLE 3

Contributions to Employment by Birthplace of Changes in Occupational Shares, 1971 to 1976

Occupation*	I Percentage changes in occupational shares (100 $\Delta Q_j/\bar{Q}_j$)	Contributions by Birthplace (c_{bj}) ^{+,**}				
		II	III	IV	V	VI
		Australia	UK and Eire	Italy	Greece	Yugoslavia
1-20 White-collar occupations	6.62	3.19	2.65	0.51	0.33	0.45
21-26 Farmers, fishermen, hunters, timbergetters	-1.80	-0.17	-0.09	-0.01	-0.03	-0.08
27-29 Miners, quarrymen	-16.21	-0.10	-0.10	-0.06	-0.03	-0.13
30-39 Workers in transport and communication	-6.39	-0.39	-0.36	-0.19	-0.18	-0.13
40-60 Tradesmen, production-process workers and labourers	-8.62	-2.28	-3.24	-5.57	-6.48	-6.65
40 Spinners, weavers, etc.	-38.86	-0.14	-0.19	-0.77	-1.25	-1.02
41 Tailors, cutters, etc.	-20.13	-0.19	-0.23	-1.27	-1.64	-0.74
42 Leather cutters, etc.	-39.74	-0.09	-0.08	-0.40	-0.56	-0.39
43 Furnacemen, rollers, etc.	-32.38	-0.09	-0.17	-0.18	-0.14	-0.35
44 Watchmakers, jewellers, etc.	2.47	0.01	0.01	0.01	0.01	0.01
45 Tool makers, machinists, etc.	-6.02	-0.39	-0.56	-0.57	-0.43	-0.76
46 Electricians, etc.	-4.21	-0.11	-0.13	-0.07	-0.06	-0.07
47 Metal workers, n.e.c.	-17.49	-0.21	-0.44	-0.64	-0.96	-1.26
48 Carpenters, etc.	-8.63	-0.19	-0.21	-0.28	-0.22	-0.37
49 Painters, decorators	-11.26	-0.08	-0.16	-0.19	-0.18	-0.26
50 Bricklayers, plasterers	-4.76	-0.08	-0.13	-0.33	-0.07	-0.17
51 Compositors, engravers, etc.	-15.54	-0.12	-0.15	-0.07	-0.08	-0.08
52 Potters, kilnmen, etc.	-26.45	-0.04	-0.07	-0.11	-0.15	-0.22
53 Millers, bakers, butchers	-8.24	-0.15	-0.10	-0.21	-0.27	-0.30
54 Chemical, sugar workers, etc.	-29.10	-0.12	-0.24	-0.17	-0.17	-0.21
55 Tobacco preparers, etc.	0.07	0.00	0.00	0.00	0.00	0.00
56 Paper, rubber workers, etc.	-5.89	-0.04	-0.06	-0.09	-0.18	-0.18
57 Packers, wrappers, etc.	-32.81	-0.18	-0.23	-0.33	-0.41	-0.50
58 Equipment operators, etc.	-5.49	-0.07	-0.08	-0.11	-0.06	-0.14
59 Storemen, freight handlers	-3.61	-0.07	-0.09	-0.05	-0.05	-0.04
60 Labourers, n.e.c.	2.10	0.07	0.05	0.27	0.38	0.40
61-71 Other occupations	4.24	0.41	0.64	0.23	0.50	0.58
Totals (c_b)		0.66	-0.51	-5.09	-5.89	-5.96

* The computations were made with 71 occupations derived from the Minor Groups in the *Classification and Classified List of Occupations* (CBCS, June 1971) and *Occupation Classification Extract* (ABS, catalogue No. 2114.0). For presentation, the results for the 71 occupations are aggregated to the groups shown here. For example, the first group, white-collar occupations, consists of the first 20 of our 71 occupations.

+ The contribution (c_{bj}) of the change in the share of occupation j in total employment to employment for birthplace b was calculated according to equation (7). The results for the aggregated occupations in the table were computed by aggregating the relevant c_{bj} 's.

** The column sums of the contribution effects are the c_b 's appearing in Table 1.

across birthplace groups. For two migrant groups participation rates fell. For the remaining migrant groups participation rates rose although not, on average, by as much as for the Australian-born.

From the point of view of testing proposition (iv), the most striking feature of the indicators of labour market performance in columns III-V is their lack of correlation with the c_b 's in column I.

Among the migrants for which the change in the occupational composition of the workforce was the least favourable we find some (the Yugoslavs and Maltese) with high rates of growth of employment and some (the Italians, Poles and Greeks) with low rates of growth, we find some (the Italians, Greeks, Poles and Maltese) with relatively small increases in their rates of unemployment

TABLE 4

Indicators of the Incidence of the Costs of Structural Change, Population Growth, and Three Indicators of Labour Market Performance, 1971-76

Birthplace	Percentage Changes				
	I	II	III	IV	V
	Structural change indicator, c_b	Population, 15 years and over, $100(\Delta R_b/\bar{R}_b)$	Employment $100(\Delta N_b/\bar{N}_b)$	Employment rate $100(\Delta E_b/\bar{E}_b)$	Labour force participation rate, $100(\Delta P_b/\bar{P}_b)$
Australia	0.66	8.37	11.00	-2.82	5.45
UK and Eire	-0.51	6.57	5.85	-2.51	1.79
Italy	-5.09	-0.26	1.20	-2.21	3.67
Greece	-5.89	-2.23	-2.39	-2.71	2.55
Yugoslavia	-5.96	13.34	11.12	-3.23	1.00
Poland	-3.63	-5.76	-14.34	-2.23	-6.35
Netherlands	-1.54	-4.37	-5.71	-2.18	0.84
Malta	-4.70	7.12	8.35	-2.61	3.84
Germany	-1.73	-1.30	-2.65	-2.30	0.95
Other Europe	-1.93	0.80	-3.65	-3.08	-1.36
Other Countries	1.40	28.77	32.56	-3.65	7.44
All birthplace groups	0.00	8.16	9.94	-2.80	4.58
Overseas	-1.83	7.50	6.93	-2.78	2.21

Column I is as in Table I. Columns II-V display the approximate identity

$$100(\Delta R_b/\bar{R}_b) = 100(\Delta N_b/\bar{N}_b) - 100(\Delta E_b/\bar{E}_b) - 100(\Delta P_b/\bar{P}_b), \text{ for all } b,$$

where R_b is the working-age population of group b , N_b is the employment level, E_b is the employment rate (i.e., 100 minus the percentage rate of unemployment) and P_b is the participation rate. The data were drawn from the *Census of Population and Housing*, 1971 and 1976.

and one (the Yugoslavs) with a relatively large increase and, finally, we find some (the Italians, Greeks, Yugoslavs and Maltese) with increased labour force participation and one (the Poles) with reduced participation. If we exclude the rather volatile category 'other countries', then the correlation coefficient (r) between the c_b 's and the employment changes is 0.03; between the c_b 's and the changes in employment rates is 0.13; and between the c_b 's and the changes in participation rates is 0.08.

One effect of the structural changes of the early 70s may have been to discourage *potential* migrants. This could explain the slight decline over the period 1971 to 1976 in the migrant share of the working-age population (see column II of Table 4) and thus the slow growth of migrant employment relative to that of the Australian-born (see column III of Table 4). The correlation coefficient between the percentage changes in population and employment for the first ten birthplace groups in Table 4 is 0.93. However, for

actual migrants in the Australian workforce, we find no evidence supporting proposition (iv). We find little correlation between our measure of the incidence of the costs of the structural changes that occurred during the period we examined and changes in the labour market position of different birthplace groups.

IV Conclusion

In this paper we defined a simple measure for indicating the incidence of the costs of structural change and we applied it in an examination of the relative performances of different birthplace groups in the Australian labour market over the period 1971 to 1976. To us, the most interesting result from the application was contained in Table 4. We found little correlation between our structural change indicator and the indicators of labour market performance. It appears that in relation to labour market performance, shifts in the occupational composition of the workforce

were sufficient to explain only a small part of the differences across birthplace groups. On an annual basis, the c_j 's in column I of Table 4 indicate that shifts in the occupational composition of employment displaced only 1.19 (i.e. 5.96/5) per cent of the employees of the worst affected group, those born in Yugoslavia.⁵ Seemingly sharp changes in occupational shares (see column I of Table 3) become muted when they are turned into changes in employment opportunities by birthplace. This was also observed by Cook and Dixon (1982) who made projections of the effects on the occupational composition of the workforce of various pressures likely to operate on the Australian economy in the eighties. When they translated their occupational projections into projections of employment by birthplace, they found small effects. The reason is that each birthplace group is spread over all the occupations. Thus, in any change in the occupational composition of employment, each birthplace group is represented in both 'winning' and 'losing' occupations.

Our measure of the incidence of the costs of structural change could be used in applications other than the one reported in this paper. For example, rather than birthplace, the classifying characteristics for the groups could be age, sex or educational attainment. The measure is attractive for applied work because it has limited data requirements. On the other hand, it offers only a partial coverage of the factors which may be relevant in assessing the incidence of costs associated with structural change. For example, it fails to reflect changes in the unit values of different

types of physical and human capital. In this respect, our measure may be compared with effective rates of protection which are often used as indicators of the inter-industry resource allocation effects of changes in tariffs. Both our measure and effective rates ignore general equilibrium features such as factor supply equations. Both are expedients to be used only when suitable general equilibrium models are not available.

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⁵ If structural changes for the period 1971 to 1976 had been concentrated in a particular year, then annualizing the five-year effects would not be legitimate. Comparison of 1966, 1971 and 1976 Census data suggests that changes in the occupational composition of employment were not sudden.

Reviews

Government and Capitalism: Public and Private Choice in Twentieth Century Australia, by N. G. Butlin, A. Barnard and J. J. Pincus (Allen & Unwin, Sydney, 1982), pp xi + 369. Cloth \$A25, paper \$A\$1.95.

This is an important, informative but very disappointing book. It is, we are told in the Preface, the first major outcome of a collaborative research project in economic history at the Australian National University; the interest is 'in the evolution of the interactions between the Australian public and private sectors since 1901, partly as a matter of historical concern, partly as background to contemporary issues'.

Three areas of public sector activity are included—economic management, social policy, and public enterprises; there is a helpful introduction and 'summary interpretation' by Noel Butlin who wrote almost half of the book. Some important points are made; e.g., much of the history and theory of capitalism elsewhere is of limited relevance to Australia because of 'the prominence of government activity' here. We are never really told *why* this is so, compared with elsewhere. There is inadequate reference to our origins, to the 'tyranny of distance' both internally and externally, to the ratio of land to people, and the relation between colonial or dominion governments and the imperial government, originally in Britain and now in the USA.

Butlin tells us (p. 324) that specific business interests sought to have their costs reduced significantly by various forms of public intervention; that 'the expectation and intent was to introduce a strong supportive role of government aiding the development of private business'; that 'strongly supportive relationship of government towards major business interests related to pastoral development was clearly established during the second half of the nineteenth century'; that in the 1920s private interests were able 'to use the coercive powers of government for discriminatory private purposes and with less constraint than before' (p. 325). And that after World War II recovery of private activity 'depended on a prior restoration and expansion of public assets and services' (p. 326). Here is abundant evidence of an Australian form of state capitalism, in

which state power is used to support and create capitalists who would otherwise be unable to exist or survive, yet the term 'colonial socialism' is used to refer to this form of activity in the 19th century.

These practices had little to do with socialism in the 19th or the 20th centuries, but everything to do with capitalism. This illustrates the central weakness of this book—it has no theory of the capitalist state. There is no reference at all to the very substantial literature on the nature and *modus operandi* of the state in capitalist society; the book is totally oblivious to the now long-standing controversies between Miliband, Poulantzas and others on the theory of the state, put forward from a Marxist viewpoint, which have attracted world-wide attention. There is no mention of these works in the reading list, and no reference to those who have attempted to apply these concepts to Australia such as Glen Lewis' contribution, 'Queensland Nationalism and Australian Capitalism' in Volume II of *Essays in the Political Economy of Australian Capitalism*, edited by Wheelwright and Buckley (ANZ Books, Sydney 1978).

The section on social policy presents a welter of information on social security, education, health and housing, tending to the conclusion that Australia's innovative efforts early in this century were redistributive, but that they became less so as the century wore on, leading to the present situation 'with all income levels making substantial tax provision for their own protection against lifetime risks', with the result that Australia's welfare experience is the opposite of most other capitalist countries. The analysis of why this is so is deficient; it takes no account of changes in the class structure, or increased urbanization, which political scientists Sol Encel and Colin Bell have shown to be significant.

The section on public enterprises presents much information, but to what purpose is not immediately clear; the reviewer is thankful for Butlin's summary interpretation, which suggests that one result of Australian public enterprises was to eliminate conflict between public and private interest through the regulation of private business, but that a variety of private interests

were able to attract discriminatory benefits from public business. It is hard to find in this section any indication of the hostility to public enterprise engendered in most of the media, which in the Chifley and Whitlam years bordered on the hysterical, to say nothing of today.

The book has no theory of the impact of international capitalism on Australia since 1945, and no theory of how the state is affected by transnational dominance of key sectors of the economy. It illustrates clearly that more information does not illuminate unless focused by appropriate theories; that orthodox economic theories do not provide an adequate set of concepts for economic historians to use in their attempts to unravel 'the seamless web of history' or to use it as a background to contemporary issues; and that the deliberate neglect of Marxist approaches is both unscholarly and incredibly self-limiting.

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Essays in Trespassing: Economics to Politics and Beyond, by Albert O. Hirschman (Cambridge University Press, New York, 1981), pp. vii + 310. Price not stated.

The title and section headings of Professor Hirschman's latest book are very promising but unfortunately, while well written and frequently entertaining, the text does not fulfil the promise. Instead it opens up the question of how much the school of 'development economics' in which Professor Hirschman has been such a key figure has contributed to—or hindered—development. In the three years since September 1980 when the book was completed, the countries of Latin America with which Professor Hirschman is primarily concerned, have demonstrated yet again that in relative terms, compared to the originally much poorer countries of East and South-east Asia, their economic performance is miserable.

The book contains a restatement of Professor Hirschman's central structural hypothesis of development through backward and forward 'linkages'. The addition of fiscal and consumer 'linkages'—also already covered in earlier work—does nothing to strengthen the power of this argument. A re-reading of the linkage thesis strengthens a feeling that the theory of 'linkages', in effect, only means that one economic activity is generally associated with other economic activities. The tie to input-output table analysis fails to illuminate causal relationships, because input-

output analysis is itself merely a quantitative technical tool. Professor Hirschman in any case agrees that the tying of 'linkages' to input-output analysis was largely done to attain respectability in the profession! It would not be so bad if 'linkages' were merely unilluminating, but harmless. However, the 'linkage' concept has been used to justify the expensive planning of complex industrial structures that have never come to fruition and justified arguments for a high degree of protection for 'infant' industries that have never grown up. Because of their analytical shortcomings they have become a core idea in thinking about economies descriptively and in structural terms rather than analytically and in terms of political options. It is particularly depressing to re-read about 'linkages' after the failure of this approach to foster economic development has been so clearly demonstrated in practice.

In two areas of critical interaction between politics and economics—inflation and regional integration—Professor Hirschman's discussion is also less than convincing.

In writing about inflation he again focuses on Latin America, explaining the endemic inflationary tendencies in terms of particular Latin American circumstances. But inflationary tendencies are far more general, not only occurring in most developing, but also in most centrally planned and market-economy industrial countries, because of the strong pressures present in all societies for the adoption of politically easy economic policy options. Where financial repression is mixed with loose monetary policies, high protection, excessive wages in the formal sector, high foreign capital inflows, and lax fiscal policies (because a real taxation system is politically difficult to implement), inflation inevitable follows. Countries can either go this route or not; surely it is up to both economists and political scientists to use their analytical tools to indicate to politicians how their policy choices translate into economic effects.

By focusing on the European Communities rather than on the wider issues of the costs versus the benefits of integration, Professor Hirschman again falls short of indicating why—despite so many beneficial 'linkages'—economic integration has been so costly, particularly in developing countries.

In a generally liberal trading world such as has emerged since World War II, inward-turned economic integration has, not surprisingly, turn-

ed out to be very costly. The Common Agricultural Policy and other more recent protectionist EC policies are particular examples. Professor Hirschman fails to explain why highly valid political desires for international collaboration to avoid wars have had to be dressed up in economic clothes which make so little sense. It has been amply demonstrated that trains can run across borders, trade can flow internationally, and so can people and capital, without integration. Why create elaborate mechanisms to replace markets, to burden the economy by creating jobs for bureaucrats who have a vested interest in persuading voters that they need uniform garden watering times throughout Europe?

Professor Hirschman's approach to the explanation of the central feature of Latin American politics—authoritarianism—is no more satisfying than his explanations of economic development issues. Authoritarian regimes, reflecting oligarchic social structures, are as much part of underdevelopment as poverty. Hirschman's concern with the details of how Latin American authoritarian regimes come into being and work fails to indicate why they have led to 'stop-go' policies whereas similar socio-political circumstances in East Asia have frequently also led to authoritarian regimes, but to ones that are strongly growth oriented. The translation of the structural approach from economics to politics has thus not led to new insights.

HELEN HUGHES

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Non-Traded and Intermediate Goods and the Pure Theory of International Trade, by Bharat R. Hazari, Pasquale M. Sgro and Dong C. Suh (Croom Helm, London, 1981), pp. viii + 189. £14.95.

The authors of this book have set out to provide a systematic treatment of the introduction of non-traded and of non-competitive intermediate goods into international trade theory. This they do in the context of the barter, or pure, trade model with two primary factors, and with the help of a copious supply of diagrams. Essentially, the approach is to undertake the minimal modifications required to graft the new types of good onto the standard Heckscher-Ohlin model.

Chapter 1 introduces a particularly simple model of an economy which produces an exportable and a non-traded good, and which consumes an importable and non-traded good. This

simplification enables the authors to exploit a particularly simple diagram. It is worth pointing out that in the case of the small country facing exogenous terms of trade, to which the authors devote most attention, trade is simply a constant-costs technique for transforming exportables into importables. It is then immediately clear that in the present context Hicks-neutral technical progress works just like an improvement in the terms of trade.

Chapters 2-4 investigate the implications of non-traded goods for various well-known theorems. In particular, the Rybczynski and Stolper-Samuelson theorems are encountered in Chapter 2, along with a discussion of factor price equalization and other comparative static results. The model of these chapters introduces an import-competing sector and allows domestic consumption of the exportable. Chapter 3 introduces distortions into factor input markets, and Chapter 4 completes the analysis of gains-from-trade theorems in the presence of various distortions in the model with non-traded goods.

Chapters 5 and 6 introduce a good which is not domestically produced, but is imported to be used as an input in the domestic production of final goods. Again, various standard theorems are reworked in the new setting. The novel feature of this part of the book is the treatment of export constraints, dealt with in Chapter 6 and in a lengthy appendix.

Within a number of self-imposed limitations, the authors have provided a competent and useful survey of a rather narrow branch of the literature. These limitations, however, have a price. Modern tools of duality theory, which are becoming increasingly familiar to international trade theorists, are not exploited. Unit cost functions, for example, make only a fleeting appearance. Further, reliance on the Heckscher-Ohlin structure leads to many theorems which are very sensitive to the precise model used. How many results are due to the dimensions of the model rather than the presence of 'non-tradedness' or 'intermediateness'? It is known, for example, that with constant returns to scale, two primary factors and three commodities, the third commodity must in general be assumed to be non-traded. This ought to receive more explicit treatment. The specific factors model receives no mention. Most frustrating to a trade theorist is the maintenance, throughout the book, of the single consumer assumption. This precludes the authors from consideration of many of the most keenly

debated, and arguably most important, issues in modern international trade theory.

It is, perhaps, unfair to criticize the authors for not having written another book. But for the student who has the background and patience to master the diagrams and algebra of this book, there are now other books available which give a much more comprehensive and balanced treatment of these issues, and many more, in a language which makes the present book seem, by contrast, rather dated.

RICHARD CORNES

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Why has Japan "succeeded"? Western Technology and the Japanese Ethos, by Michio Morishima (Cambridge University Press, Cambridge, 1982), pp. xi + 207. £12.50.

Students of Japanese economic development, both inside and outside Japan, are likely to find this a most unsatisfying book. Its title leaves the reader wondering, when he is into the contents of the book, whether the author may not indeed be in serious breach of the false advertising laws. There is little in the way of careful economic analysis of the kind respected by 'real' professionals and, if the book had been written by anyone else, it is almost certain that it would never have been reviewed within the pages of this journal.

Professor Morishima has in fact produced a very challenging collection of essays. They address questions which are commonly neglected in economic analysis and, while their argument may not be wholly convincing and is certainly not complete in the manner of a theoretical treatise, they suggest interpretations which upset conventional ways of thinking about economic behaviour and economic development.

The book contains the text of the Marshall Lectures which Morishima delivered at Cambridge, England, in 1981. There are five chapters, drawn together between an introduction which identifies the Weberian origins of Morishima's interpretation of the history of Japanese development, and a conclusion which returns to the particular role of religious/cultural ideology in the character of Japanese economic behaviour.

The first chapter traverses early Japanese history and the competition of influences from the Asian mainland, seeking to explain the establishment of the unique character of Japanese Confucianism and ethical thought under the

Seven-Article Constitution of Shotoku Taishi (604). The second chapter describes the continuity of these influences upon Japanese society down through the period of isolation (*sakoku*) to the present day (p.35). It deals with the opening up of Japan to trade and commerce with the West (*kaikoku*) under the threat of superior military power, and the character of the Meiji Revolution in the 1860s which set Japan upon a course of wholesale economic modernization. The third and fourth chapters deal with the expansion of the Japanese empire through the triumph of the Russo-Japanese War to the frustration of the Washington Naval Treaty of 1922, and from the blossoming in the Taisho Period to the disaster of the Pacific War. The fifth chapter describes the occupation period after the war and the environment of the cold war period within which policy came to shift sharply towards support for reconstruction and strong economic growth.

Morishima begins his argument by contrasting what he sees as the Marxist contention that 'ideology and ethics were no more than reflections of underlying material conditions' with the Weberian contention that 'quite the reverse relationship holds' (p.1). He takes what he understands to be the Weberian view as his starting-point but proceeds to question Weber's judgement that despite the strictures of Confucian rationalism the 'Chinese in all probability would be quite capable, probably as much if not more capable than the Japanese, of assimilating capitalism which has technologically and economically been fully developed in the modern culture area' (Morishima's translation of Weber, p.2). Unlike Puritan rationalism, which encouraged man to exercise rational control over the world, Confucian rationalism encouraged accommodation to the state of the world in a rational manner, Morishima suggests; but he then sets out to establish that in certain critical respects Japanese Confucianism and therefore the Japanese social ethic developed in a way very different from the Confucianism and social ethic of China.

In particular, Morishima argues that in Chinese Confucianist thought the virtue of *benevolence* had primacy over other virtues whereas in Japanese thought the virtue of *loyalty* took primacy over other virtues and that, even so far back as in Shotoku Taishi's Constitution, which was written very much under the influence of Confucianism, no special importance was accorded to the virtue of *benevolence* (p.6). This implied

a subjugation of individual conscience to *command* and, Morishima asserts, right through . . .

Japanese history up to the present individualism has never prospered, and, as a result, a strong, serious advocacy of liberalism has been virtually non-existent. The Japanese have been required to obey their rulers, to serve their parents, to honour their elders and to act in accordance with the majority factions in society [p.8].

The primacy of loyalty in Japanese social thought and behaviour is thus seen to be a key factor in explaining success in the absorption of Western technology and its improvement for the purpose of achieving national power and economic development.

While the motive power behind Western capitalism was the individual's demands for freedom, a forced march was begun in Japan to do away with the military and scientific-technological disparities which existed between Japan and the West. In this march the individual was expected to offer in sacrifice not merely his everyday life, but, if necessary, his death as well; this was his loyalty, his moral backbone [p.16].

This is the kernel of the argument in Morishima's book.

Two periods of Japanese history — the period of the Taika Reform in the seventh century and the period of the Meiji Revolution which led to the commitment to economic modernization — are identified as deserving of special focus. In the former period, the pattern of social values was firmly established; in the latter, these values were turned by the elite towards the objectives of achieving national economic and military power. In the post-war period the restoration of economic power was achieved in a similar fashion while a restraint was put upon the restoration of military power but, despite economic success in this period, 'the prospects of individualism and liberalism blossoming and maturing in Japan are still extremely remote' (p.17).

In subsequent chapters Morishima interprets Japanese history and development through this prism.

At the end of the Tokugawa Period 'the Japanese were moulded into a specific type of person by their Confucian education . . . that is to say, they were all gentlemen of the samurai type' (pp. 60-1). The intellectual and rationalist tradition in Confucianism made it possible to ab-

sorb Western sciences and knowledge with facility (p. 89) and Japanese capitalism was founded with 'a nucleus of model factories run according to Confucian ideology' (p. 90). From the Meiji Period through to the Pacific War, Japanese economic growth . . .

was certainly not achieved through using the mechanism of free operation of the economy; it was the result of the government or the military, with their loyal following of capitalists, manipulating and influencing the economy in order to realise national aims. In the final stage this kind of state capitalism was eventually transformed into a controlled economy; since the leaders of private enterprise had from the outset shown a dependence on the government, they submitted easily — or at least with relatively little resistance — to a control of industry which depended on administrative guidance by the government [pp. 96-7].

Morishima believes that the foundations of Japan's post-war success were laid during the period of wartime control which demonstrated how to achieve massive industrial transformation and change.

Although it was made under the wartime or quasi-wartime regime, this kind of radical transformation in the organisation of the economy would have been impossible without ideological support from the people [p.139].

During the period of reconstruction, Morishima notes, it was said that the Economic Stabilisation Board (the Occupation period precursor to the Japanese Economic Planning Agency), no longer the Imperial Army, 'causes even a baby to stop crying' (p. 186). Were it so that the Economic Planning Agency could claim such power in today's circumstances.

In one sense, Morishima has produced a caricature of the history of Japanese economic and social development, a caricature, one suspects, that would have had a receptive audience in Cambridge and London. One does not have to be a specialist in Japanese history or economic development to know that there is much that is controversial in his perspective.

The picture of a thoroughly indoctrinated feudal Japan suddenly and effectively turned by authoritarian decision to the task of economic growth flies in the face of so much Japanese and Western scholarship about pre-modern development and the difficulties as well as the successes of modernization. It is interesting that

Morishima's historical discourse on the Tokugawa Period provides no economic history of the highly-regulated Tokugawa economy, save from observing that the policy of seclusion had the important effect of protecting Japan's craft industries and provided the basis for subsequent industrialization—an interesting but somewhat casual speculation. Some economic analysis of this period may have provided valuable insight for his general thesis.

Of developments in the Meiji Period, he suggests that it was when the so-called Unequal Treaties (which took away Japan's tariff autonomy and meant that government support for infant industries had to take the form usually recommended by economists) were revised that 'the great advance of the Japanese economy began' (p. 68, fn. 9). At least, this conclusion deserves amplification.

Of the employment system, Morishima observes that 'employment in a Japanese company was and is probably more like being in the police or the army than is the case in an English company' (p. 116). The seniority-based wage system, Morishima asserts was 'an uneconomic system', designed presumably to re-inforce loyalty, and a byproduct of this employment system was the dual labour market in which 'low class labour' served in small or medium scale industrial employment (pp. 117-19). The only extensive economic data in the book refer to this aspect of the labor market but the literature, which offers other interpretations, receives no mention. It is at least possible under certain circumstances that the seniority system also served to increase the security of both employer and employee in their shared investment and shared returns on human capital. And what sort of corporate environment was it in which managers of these corporate armies made the investment and other decisions which brought successful growth? Armies and police forces are not noted for entrepreneurial talent, except of the rent-seeking kind. Morishima's analysis is superficial alongside the alternative analysis and considerable literature, even in English, which is available and to which he makes scant reference.

Morishima would not be disturbed by this latter criticism. He declares himself aware that he has looked to only one side of the question which his book seeks to address (p. vii). Indeed, his interpretation of the history of Japanese development has the character and force of one of the mathematical treatises for which he is well known, as it proceeds resolutely from premise to

conclusion, providing a sure basis by which to re-order the facts. It is no less challenging or important a contribution for this weakness.

Contemporary English language interpretations of the economic development of Japan have stressed the role of liberalistic forces, a debt we owe to American scholarship and its traditions. But perhaps that too has been overdone. Morishima puts forward another organizing idea. In this book it is not really tested against the facts of economic experience or alternative interpretations of the facts and, if the idea had come from a Western scholar, it may well have been labelled a prejudice. Yet we do not have to accept Morishima's argument, or its rather too general application, to conclude that he has produced the stuff for many a dissertation and, much more importantly, raised deep issues about the way in which we model economic behaviour, across space and over time. Hopefully they will more widely be given the attention they deserve by the profession.

PETER DRYSDALE

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Quarry Australia? Social and Environmental Perspectives on Managing the Nation's Resources, edited by R. Birrell, D. Hill and J. Stanley (Oxford University Press, Melbourne, 1982), pp. xvii + 366. \$A12.95.

There has been an increasing concern expressed during the last quarter century about the adequacy of natural resources and their role in economic activity. Contributions to this debate are noted for their diversity of opinion and different perceptions of the issues. This book questions the adequacy of the *domestic* resource base to sustain the living standards of Australian society.

A primary aim of the present contribution to the Australian resources debate is to outline an alternative economic and social blueprint to the growth option for the mining and mineral processing industries. Two propositions are set down as the base for the strategy. The first is that Australia's non-renewable resources are finite and the stage at which these resources are exhausted, thereby limiting human activity, will be reached more quickly than is generally believed. As well, Australia is less well endowed with renewable resources and consequently there exist limited prospects for substituting produced or renewable

inputs for non-renewable resources to maintain or enhance Australian society's standard of living. Particular concern is expressed about the liquid fuels situation, oil and gas, and about Australia seemingly being unable to establish self-sufficiency in liquid fuels even from the renewable resource base.

The second proposition is that the mineral growth option will result in unacceptable social, economic and environmental costs. Accordingly,

We should be planning *now* for the inevitable transition to a sustainable or conserver society, that is, a society allowing only a careful run-down in its non-renewable resource foundation and ever mindful of the long-term constraints implied by its renewable resource capability. [p. xiii].

Moreover it is evident an environment ethic is underlying the expressed preference for a 'conservation' option. In essence the environmental ethic accepts 'human non-use as a valid policy in human interaction with (resources) and totally rejects unconstrained or disrespectful human use' (pp. 210-11). Alternatively, decisions about resources should be made according to what is deemed 'right' and 'good' and not just what is preferred in an economic calculus. (For further discussion see, for example, Sagoff, 1981.)

The book is divided into four parts. The first five papers are concerned with implications (social, political and economic issues) arising from the resources sector attaining a more significant role in the Australian economy. Attention is focused on health deterioration due to the way of life in affluent Australia and on a concern for the resulting distribution of benefits and costs of resource development both internationally and intranationally. In addition the notion of a conserver society as an alternative course of action is outlined.

Part II contains four papers concentrating on non-renewable resources. Included are discussions of liquid fuel, brown coal in the Latrobe Valley, black coal in the Hunter Valley and the feasibility of plans for capacity expansions in the alumina, aluminium, gas, uranium, black coal, and iron ore sectors.

Renewable resources are discussed in Part III. Five papers deal with aspects of the biophysical resource base, liquid fuel from biomass, timber, resources of the south-west of Western Australia, and the Murray Valley. An argument included in this section is that economic growth based on

mining and mineral processing could undermine the extent to which the renewable resource option can be taken up in the future.

Part IV presents visions of the future. Six papers deal with a variety of aspects including the steady state economy, social possibilities for changing the present extravagant ways of resource-intensive societies, and political concerns and abilities for securing an alternative way of life.

The essence of the approach to the resources problems conceived in this book is ethical. There is inherent 'goodness' in slowing down the rate of extraction of non-renewable resources; it shows a national sense of responsibility. Elsewhere Daly (1979) has argued,

In the largest sense, man's ultimate economic problem is to use means wisely in the service of the Ultimate End . . . — that which is intrinsically good and does not derive its goodness from any instrumental relation to some higher good [p. 70].

Thus not only should the net economic benefits of resource development be assessed but also the preference structure which underlies this assessment should be evaluated with respect to the set of principles believed to be 'right'. The environmental ethic provides the argument for transition to a conserver society.

The conserver society as defined provides a benchmark not unlike the benchmark discussed in welfare economics.

In a Conserver Society, the pricing mechanism should not just reflect the private cost, but rather should reflect the total cost to society, including net energy used, ecological impact and social considerations. This will permit the market system to allocate resources in a manner that more closely reflects societal needs, both immediate and long term [p. 30, Figure 1].

This model constitutes a practical analytical point of departure for discussing reality. The realities are the implications of the deviations from conditions which define this benchmark. Attention in particular has to be focused on the complex task of formulating policies to guide the transition from the present unacceptable pattern of resource use to a more acceptable pattern. This task is not addressed in this volume.

The steady state economy is put forward as an expression of the conserver society. The steady state economy is defined by four characteristics:

constant population, zero net capital accumulation, consumption levels 'sufficient for a good life and sustainable for a long future', and lowest feasible rate of throughput of matter and energy. This type of economy is deemed desirable on two counts, an ethical one of sustainability and an economic one of the marginal social costs of growth exceeding the marginal social benefits. In addition the steady state economy is deemed necessary because two principles, finitude and entropy, imply the end of growth some time. Low entropy is regarded as the ultimate resource which is not renewable and for which there is no substitute. In such circumstances the presence of technical progress is essential if consumption is to be maintained at the chosen level (see Dasgupta and Heal, 1979, Ch. 7.) Fundamental to the functioning of the steady state economy and thus to the basic premise on which this book rests is the question of measurement; the assessment of long-term supplies of minerals, the 'proper' standard of living, 'proper' size of population, the level of capital stock, etc. If, as seems generally accepted, the concept of resources is a dynamic one (see, for example, Harris and Skinner, 1982) then these elements of the steady state economy do not have absolute numbers. Thus any appraisal of the rates of resource use ought to be based on an assessment of the likely future level of information and its effects.

In this light Encel's contribution (Chapter 17) is significant. He draws attention to model formulation and forecasting and is critical of the pseudo-scientific approach (for example, see Chapter 8). Models by definition are approximations of some real world processes they abstract from the complexities of the processes, yet they should capture the 'essential' dimensions of the forces governing the outcomes of the processes. Encel calls for improved, more comprehensive models (i.e. models which integrate the separate concepts of ecosystem and social system) to provide an enhanced basis for assessing alternative futures. While the conserver society concept may have appeal as an Ultimate End, a dominant controversial issue in the resources debate is the appropriate set of policies to achieve the Ultimate End. This volume adds little of substance to this debate.

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The Economist as Preacher, by G. J. Stigler (Blackwell Oxford, 1982), pp. vii + 259. £15. Cloth only.

Despite serious disagreements that I have with some of the analysis and approaches of this book, I would suggest it be read by economists, if only for the questions it raises. It is vital that economists be more concerned about the social and political role of their own discipline and their own values and ideological positions.

A significant section of the book examines various themes relating to the sources of the ethical values of economists (particularly their belief in the benefits of 'freely competitive markets' and the desirability of an 'efficient' allocation of resources), the subject matter of economics during various historical periods, the development of economics as an academic discipline and as a 'science', the influence of economists over public policy-making, and the desirability of studying history of economic thought. The final chapters present the results of surveys of economic literature and the citation practices of economists. Although there are some interesting results in these surveys, I found these chapters much less satisfactory than the rest of the book.

An important issue Stigler raises is: where do economists get their values? At one point he argues that 'economists have been content to base their goals upon the ruling views of the educated classes' (p. 21), while later he states that 'economists generally share the ruling values of their societies' (p. 119). That there may be a difference between the values of the educated classes and the rest of society does not concern Stigler, since we after all 'live in a world of reasonably well-informed people acting intelligently in pursuit of their self-interest' (p. 37). The book only contains very brief references to the question of whose interests are served by these ruling values,

and how ideologies developed and are maintained in certain societies.

It is not recognized by Stigler in his analysis of the value systems of economists that most economists do not now work in academic institutions but either for the state or the corporate sector. It is true that economists in academic institutions (particularly universities) *perceive* themselves to be value-free and objective, not subject to the same constraints as those working for the government or a corporation. But economists are employed in many of the most important and powerful institutions in capitalist society and increasingly the values of economists reflect the values of these institutions. Increased corporate funding of academic institutions, particularly some research centres, will obviously reinforce this tendency, although it will apply to a number of disciplines and not just economics.

The enormous growth in the number of non-academically employed economists I think helps to explain a point Stigler raises, but to which he provides rather unsatisfactory answers. In Chapter 5, 'Do Economists Matter?', he asks why economists seem to have only a 'minor and scarcely detectable influence on the societies in which they live' (p. 63). I would agree to some extent that academic economists as such do not have a significant direct influence in policy-making (with some notable exceptions) but I would argue that non-academic economists now have a widespread and increasing influence on such policy and the behaviour of many of our most important institutions. A very good example of this in Australia is the Industries Assistance Commission which has a crucial role in determining the parameters of the debate about industry assistance and protection policy.

In addition, despite the fact that many non-academically employed economists find their academic counterparts almost completely irrelevant and overly involved in abstract theoretical and mathematical analysis, it is not to say that the values and ideologies of academic economists, embodied in most economics courses, do not heavily influence the thinking of their graduates. Whether they are of practical use or not, many of these ideas become deeply embedded in the minds of most economists, wherever they are employed. Stigler himself would include in this category concepts such as competitive markets, free trade, comparative advantage and consumer sovereignty.

Chapter 7, while ostensibly concentrating on

the development of marginal utility theory, makes some important points about the development of the 'ruling values' in economics. Of note is his observation that:

Few academic economists separated themselves entirely from discussions of contemporary problems, but the sovereign importance of policy questions diminished as the science became more exclusively a university profession [p. 77].

While Stigler recognizes that change can take place in a discipline and there are 'ruling theories in a science' (p. 83), he does not discuss how a *particular* set of theories, neoclassical economics, became so entrenched as *the* set of economic theories and principles. He, like most economists, argues that economics as it presently is taught is based on a 'set of widely and anciently accepted precepts of personal ethical behaviour' (p. 36) and that the fundamental principle is of man (sic) as a utility maximizer. What we have today, therefore, is the culmination of two hundred years of economic thought, and 'all that is useful and valid in earlier work is present—in purer and more elegant form—in the modern theory' (p. 107). What is important to analyze in more detail is how the development of economics as an academic discipline institutionalized the 'ruling views' and trivialized the subject matter to suit the requirements of academic specialization.

Despite some important insights in the body of neoclassical theory, it remains that a very significant proportion is no longer relevant (if indeed it ever was) as a guide to the workings of a complex economy. Indeed many academic economists do not even pretend it is; rather that students need to be taught certain economic 'principles' *before* they can analyze the 'real world'. That these principles should include Marxist concepts such as uneven development, surplus value, the concentration and centralization of capital and the mode of production is never countenanced.

Stigler maintains throughout that economics is a 'science' and that to some extent it has undergone a process of scientific development. However he recounts case after case in the book where economists have been less than scientific in their endeavours, notably their failure to test the 'central theoretical core'. In reference to the views of economists towards competition and monopoly, he notes:

It would be gratifying for me if I could report that our profession's changing view was based upon the systematic study by economists of the

effects of the policy, in short, that hard evidence carried the day. Unfortunately, there have been no persuasive studies of the effects of the Sherman and Clayton Acts throughout this century . . . [economists] have provided precious little tested economic knowledge to guide policy [pp. 44, 49].

Or on economists' views on the appropriate role of the state:

. . . even when economists took an active and direct interest in a policy issue, they did not make systematic empirical studies to establish the extent and nature of the problem or the probable efficiency of alternative methods of solving the problem . . . From 1776 to 1964 the chief instrument of empirical demonstration on the economic competence of the state has been the telling anecdote [pp. 129-30].

Or on demand curves:

All economists at all times accept the universality of negatively sloping demand curves, and they do so without any serious search for contrary empirical evidence [p. 131].

Stigler becomes rather more enthusiastic in describing the state of economics in recent years due to the greater insistence upon quantification, and that consequently the discipline can look forward to a bright future. I would argue that the development of certain quantitative techniques has, to a large extent, constrained the development of the discipline even further, particularly as a result of the restrictive data requirements of econometric modelling. This does not mean that economists have not broadened the focus of their work to incorporate a wider range of subject matter (as Stigler notes, crime, marriage and divorce); rather it could be argued that economists are now the social science imperialists (from Harcourt's book of the same title). What is happening is that economists have taken their relatively narrow viewpoint and often imposed it on other disciplines in much the same way as the missionaries set about spreading the word of God to the heathens in the colonies. In fact, perhaps the ultimate irony of this book lies in its title. Economics, as it is presented in academic institutions, is not a science, but a theology.

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The Economics of Feasible Socialism, by A. Nove (Allen & Unwin, London, 1983), pp. xi + 244. Cloth \$A13.95.

It has become fashionable to reject Soviet-type socialism as an undesirable type or as not even socialism, and to offer one's own acceptable alternative 'socialism with a human face'. Professor Nove is well qualified, more qualified than most people, to write about such matters. He has been writing continuously about the Soviet economy and the political economy of socialism for more than 25 years and has given us many useful insights into the operation and development of the Soviet economic system.

The Economics of Feasible Socialism is in many respects a successor (Mark III) to his earlier popular textbooks, *The Soviet Economy* (1961) and *The Soviet Economic System* (1977), for many of the ideas, insights, anecdotes and jokes which appear in the earlier works reappear in his new book. What is new in *The Economics of Feasible Socialism* is a systematic attack on Marxian socialism, which he labels Utopian Socialism, and a sketch of his vision of an acceptable form of socialism.

The reasonable-sounding title of the book suggests Nove is concerned with a workable sort of socialism, the sort of socialism that might be achieved 'within the lifetime of a child already conceived'. Accordingly he does not make 'utopian' or far-fetched assumptions about possible changes in human attitudes and behaviour or about the availability of resources. The inhabitants of his not-too-distant socialist society would continue to be more or less selfish, jealous and acquisitive and would be confronted by the economic problem of scarcity. Within these constraints it is feasible to construct an attractive socialist society, one which has the properties set out conveniently on pp. 227-8.

Nove's feasible form of socialism is based on a selection of elements found in existing economic systems: a competitive market, central planning and worker's participation. What is missing is 'custom and tradition'. In any society many decisions are made and executed in accordance with long-established conventions which cannot be changed 'within the lifetime of a child already conceived'. Moreover, Nove does not explain in detail how the various parts taken from different economic systems will be geared together to produce a viable, just and efficient economic system. For example, he does not explain how major in-

vestment decisions, which are made by a planning authority responsible to an elected assembly, can be permanently separated from decisions of current output and distribution of goods which are to be determined by negotiations between the parties concerned. At one stage the Yugoslav authorities made a similar distinction between the two types of decision and located them in two separate bodies, central and local, but eventually this practice had to be abandoned because it proved unworkable.

It is rather unfortunate that Nove devotes no more than 34 pages to the explanation of his brand of socialism. The bulk of the book (195 pages) is devoted to clearing the ground. He starts with 'a brief examination of why it is that socialist ideas must be taken seriously'. This turns out to be a critique of modern capitalism, focusing on monopoly power not only in big business but also by trade unions. Modern capitalism is rejected because (a) it can no longer be maintained that the pursuit of personal and sectional interest served the general interest, (b) high unemployment and inflation rates, (c) alienation, and (d) deterioration in the quality of life.

After discarding modern capitalism, Nove launches into a critical and sometimes an unjustifiable attack on Marxian ideas of socialism. Despite his disarming plea that 'one must not be dogmatic in criticising dogmatism' much of this rather tedious part of the book consists of polemics against the New Left or Marxist fundamentalists. He begins with the contention that 'Marx had little to say about the economics of socialism, and that the little he had to say was either irrelevant or directly misleading' (p. 10). This is a familiar contention. Oscar Lange reportedly used to say that 'capitalist economics is about socialism and socialist economics is about capitalism'. If Marx had little to say about the economics of socialism why devote nearly a quarter of the book to him or twice the space allocated to the main theme of the book? Further, Nove makes some strange statements about Marx and the Marxists. He asserts that 'Marx's own view of capitalism, his basic analysis of its features rests explicitly and implicitly on his picture of an alternative society' (p. 13). Surely it would be more accurate to say that Marx's picture of an alternative (socialist) society is derived from his deep analysis of capitalism, not the other way around. Furthermore, under the sub-heading *Sancta Simplicitas* (pp. 32-9) he accuses Marx, Engels, Bukharin and Lenin of underestimating

the complexity of economic life and planning. In this context he quotes the remarks of 'a sarcastic Soviet writer' who claimed

mathematicians have calculated that in order to draft an accurate and fully integrated plan for material supply just for the Ukraine for one year requires the labour of the entire world's population for 10 million years (p. 33).

Nove is fond of recording such remarks and quoting the testimonies and anecdotes of disenfranchised emigrés without warning the reader that such testimonies, though valid and an important source of information, need to be accompanied by a certain degree of scepticism. Anyway, the thesis that Marx and the Marxists underestimated the complexity and interdependence of the modern economic system is based on selected quotations from their writings. Moreover it is odd to accuse an author, writing more than a century ago, of 'grossly underestimating the complexity of the modern economy (and of society)' (p. 59). All in all, this part of the book stresses the negative and utopian aspects of Marxian thoughts on socialism and ignores altogether some of its positive and relevant elements such as Marx's theory of economic growth, which has been adapted and applied fruitfully by Soviet economists, and his views on forms of social ownership.

Having dealt with the ideology, Nove next moves to the reality of Soviet socialism to see what lessons can be drawn for 'the economics of feasible socialism'. Here Nove is on firmer grounds utilizing his wealth of knowledge of the working of the Soviet economic system. However his grasp of economic theory, which he uses to evaluate Soviet economic policy and practice, is not always firm. After quoting a Czech economist: 'when the world revolution comes we shall have to preserve at least one capitalist country. Otherwise we shall not know at what prices to trade' Nove immediately adds:

But the use of such prices in a "socialist" market leads to plainly undesirable consequences. The price relativities may more or less reflect the demand-supply relationships among socialist countries, or the relative scarcity of particular goods [pp. 108-9].

It is not plain at all that the use of world prices will lead to undesirable consequences. World prices always reflect the opportunity cost of domestic resources of either capitalist or socialist

countries. Indeed, Kalecki pointed out long ago that the use of world prices by a socialist country is a short-cut to rational economic calculation.

Part III of the book deals with reform models of Soviet socialism focusing on Hungary, Yugoslavia, Poland and China. It is a pity he does not mention the GDR at all. The economic reforms in that country show, to some extent at least, that economic decentralization can proceed without relying too heavily on the market mechanism. This throws some doubt on his strong contention that 'marketless socialism can only mean centralised planning' (p. 179). Referring to the Yugoslave system of self-management he comments that

it has achievements to its credits. The standard of life compares favourably with its "centralised" neighbours. Belgrade and Zagreb must seem highly prosperous to most inhabitants of Rumania, Bulgaria and the USSR [p. 141].

This may be so, but Yugoslavia has other cities and regions whose standards of living are not much higher than some of the cities of Third World countries.

Before he begins his sketch of the economics of feasible socialism Nove discusses the problem of

transition (Part IV). Here he deals with how one can move to an acceptable form of socialism, first, from capitalism to socialism, second, from 'socialism' to socialism, and third, from underdevelopment to socialism ('developmental socialism'). Nove is weak in his discussion of developmental socialism which deals with 'the experience of a great variety of countries, ranging from Cuba and Vietnam through Angola to Algeria, Libya, Ghana, Tanzania and many others (p. 194). Clearly, he is not very familiar with the experience of all these countries and consequently his discussion tends to be superficial and amateurish. Also undue weight is given to the critique of 'the unequal exchange thesis', but then this forms part of his attack on the New Left.

Finally, there is an interesting appendix which anticipates critical reviewers both from the extreme Left and the extreme Right. However, anyone who does not belong to either school of thought would welcome Nove's notion of feasible socialism. His book would be especially rewarding to those who are not familiar with his previous works.

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