

Southern Africa Labour and Development Research Unit

INDUSTRIALISATION AND INEQUALITY  
IN SOUTH AFRICA

Brian Levy

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## INDUSTRIALISATION AND INEQUALITY

### IN SOUTH AFRICA

South Africa is among those countries with the most unequal distributions of income in the entire world.<sup>1</sup> To some extent, this inequality is the direct result of the discriminatory practices of various governments throughout the twentieth century. In part, though, discrimination has been accompanied by, and has helped shape, an industrial structure oriented toward the economic advancement of the country's white population. What is the relationship between the structure of industry and the distribution of income in South Africa?

#### Capital-intensity and Income Inequality

A central hypothesis of this paper is that, other things being equal, income is likely to be less evenly distributed the greater is the degree of capital-intensity in the modern industrial sector.<sup>2</sup> Simple theoretical reasoning provides the basis for this proposition; this same reasoning offers some insight into the relationship between capital-intensity and structural unemployment, thereby helping to clarify some implications of recent measures of South African structural unemployment.<sup>3</sup>

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1. See Charles Simkins, "The Distribution of Personal Income Among Income Recipients in South Africa, 1970 and 1976". University of Natal, Pietermaritzburg, DSRG Working Paper No. 9, 1979. According to Simkins, South Africa's Gini coefficient was 0.71 in 1970 and 0.85 in 1976 (the higher the Gini coefficient the greater the degree of inequality); the share of income accruing to the poorest 40 percent of South Africa's population was 3.85 percent in 1970 and 6.57 percent in 1976.
  2. The analysis here focuses on the effects of capital-intensity on relative wages, not on the distribution of income between wages and profits. Assuming unitary elasticity of substitution between capital and labour, differences in the capital-labour ratio do not affect their relative shares of income.
  3. Charles Simkins, "Measuring and Predicting Unemployment in South Africa", in Charles Simkins and Duncan Clarke, Structural Unemployment in South Africa, University of Natal, 1978, p.34, estimates that South Africa's rate of unemployment was 22.4 percent in 1977; Brian Kantor, "South Africa's Unemployment Problem", Businessman's Law, February, 1980 and Jos Gerson, "The Question of Structural Unemployment in South Africa", University of Cape Town, unpublished, 1980, both argue that Simkins' measures vastly overestimate the extent of South Africa's unemployment problem.

We begin with a one-sector economy endowed with fixed quantities of capital and labour. A production function defines the maximum output that is attainable for particular inputs of capital and labour. Under these conditions, there is a single ratio of capital to labour that ensures full employment of both factors; if production is too capital-intensive, unemployment will result.

A dual economy model has rather different implications. Here we assume that one sector provides employment at low wages for all who seek it. The other sector, highly capital-intensive, pays higher wages. Consequently, large numbers of workers seek employment in this modern sector. Despite an excess labour supply, there is no decline in modern sector capital-intensity: high wages and high capital-intensity are buttressed by the political and economic power of a unionized work force on the one hand,<sup>4</sup> and an oligopolistic market structure which inhibits competition, enabling firms to acquiesce to high wages on the other.<sup>5</sup> As a result some workers, responding to the earnings disparity, accept a period of unemployment while they search for work in the modern sector. With no decline in modern sector wages the queue of the unemployed acts as an equilibrating mechanism. As additional workers join the queue, the probability of obtaining modern sector employment diminishes for each queue member. Eventually, the present value of expected lifetime income for queue members falls to the level that can be earned in the low-wage sector, ending the incentive to join the queue.<sup>6</sup>

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4. *Historically, the white work force has played this role in South Africa.*

5. *For evidence of the high degree of concentration in South African manufacturing, see P.G. du Plessis, "An International Comparison of Economic Concentration: A Note," South African Journal of Economics, 47,3. 1979.*

6. *For a similar analysis, see M.P. Todaro, "A Model of Labour Migration and Urban Unemployment in Less Developed Countries," American Economic Review, Vol. 59. No. 1, 1969.*

Unlike the one-sector case, in this two-sector world a highly capital-intensive modern sector does not lead to involuntary unemployment. It does, however, exacerbate other problems. The higher is modern sector capital-intensity (and thus wages) <sup>7</sup> the greater is the extent of inequality between workers employed in the high-wage sector and those whose expected lifetime income is that of low wage employment. Moreover, the presence of a highly capital-intensive modern sector is likely to diminish the prospect of a long-run decline in inequality: For a given rate of growth, fewer jobs are created in a capital-intensive modern economy than one oriented to labour-intensive production. As a result, the modern sector's demand for labour is not likely to become so large that it forces up earnings in the low-wage sector. <sup>8</sup>

What interest do these one and two sector parables have for an analysis of unemployment and inequality in South Africa?

7. The association of high wages and high capital-intensity can be demonstrated, using somewhat different reasoning, for production functions of either the linearly homogenous form, or of the Leontief fixed-coefficient variety. In the former case, the marginal product of labour and thus, following familiar competitive assumptions, the wage, can be shown to be

$$\partial Q/\partial L = f'(K/L) \quad f' > 0$$

Thus, in response to wage increases production will shift to more capital-intensive techniques.

In the Leontief example,  $C_i = wl + rk$ , where  $w$  = wage,  $r$  = rent  $C$  = production costs of output  $i$  (the modern sector output) and  $k$  and  $l$  are the fixed quantities of capital and labour used to produce one unit of output,  $i$ . Over a range of fixed-coefficient technologies, the higher is  $k/l$ , the lower is the share of labour costs in overall costs of production. Thus, presuming that the market for  $i$  is imperfectly competitive, the higher  $k/l$ , the greater the likelihood that employers will accede to workers' wage demands.

8. More generally, whether the demand for high-wage labour ever forces up earnings in the low-wage sector, depends on the rate of population growth, the rate of growth of output in each sector as well as the direction of change and the level of capital-intensity in the modern sector. For a model that presumes that this turning point is reached, see J.C.H. Fei and G. Ranis, 'Agrarianism, Dualism and Economic Development', in I. Adelman, and E. Thorbecke, The Theory and Design of Economic Development, (John Hopkins, 1966) for a model that generates the opposite conclusion of stagnating modern sector employment growth and burgeoning inequality, see Lance Taylor and E.L. Bacha, 'The Unequalising Spiral: A First Growth Model for Belindia', Quarterly Journal of Economics, May 1976.

At first glance, the two-sector model appears more apposite: South Africa has labour markets in mining, industry, white-controlled farming and agriculture and other activities in black rural areas. Nonetheless, it is wrong to conclude from the existence of a multi-sector economy that there is no involuntary unemployment in South Africa.

As the theoretical model highlights, unemployment is voluntary only if there is available some potential source of income which unemployed workers have foregone in order to search for work in the modern sector. Partly as a result of legal barriers to mobility, it is likely that some of South Africa's unemployed will not have access to any of these low-income activities. Moreover, among those with access, earnings in low-income occupations may vary widely from activity to activity, and from region to region; sometimes these earnings will be enough to ensure survival, at other times they may amount to next to nothing. In principle, there is no reason for only those with no alternative income to be included in measures of involuntary unemployment; the minimum could be set higher.<sup>9</sup> Empirical evidence on the options open to the unemployed together with such a minimum level reveal the extent of South Africa's involuntary unemployment problem.<sup>10</sup>

There is a second implication of the theoretical discussion that is relevant to South Africa: Though the effect may be limited in a multi-sector economy, a high-wage, highly capital-intensive sector can exacerbate the extent of income inequality. The manufacturing sector, since the early 1950s the largest employer in the modern economy, appears to have this effect in South Africa.

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9. To be sure, the choice of any non-zero value -- like zero -- is arbitrary. One solution is to explore the sensitivity of measures of the number of involuntarily unemployed to changes in these minimum income levels.

10. As far as I am aware, the conclusion that South Africa has no serious involuntary unemployment problem has not been based on this kind of detailed empirical work.

Capital-Intensity in South African Manufacturing

Analysis of capital-intensity in South African manufacturing generally has focussed on the choice of techniques used to produce some particular output. Thus, inordinate capital-intensity has allegedly resulted from transfers of technology from labour-scarce to labour-surplus economies, and from factor price distortions which subsidize capital, while adding to labour costs.<sup>11</sup> The approach here is rather different,<sup>12</sup> focussing not on the choice of techniques, but on the mix of products in South African manufacturing.

The mix is not determined by some immutable law of economic growth. Government policies can influence the structure of industry. In South Africa, these policies consistently have favoured capital-intensive sectors at the expense of their labour-intensive counterparts.

The capital-intensive orientation. On what basis can the various sectors of manufacturing be ranked as more or less capital intensive? And, once some ranking has been established, what yardstick can help determine whether South Africa's manufacturing sector is biased in a capital-intensive direction?

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11. See J. Matrass and R.P.C. Brown, Capital-Intensity in South Africa, (University of Natal :Black-White Income Gap Project, 1977); Francis Wilson, Labour in the South African Gold Mines, 1911 - 1969 (Cambridge: Cambridge University Press, 1972), Appendix 20, p. 181; "Men or Machines", Financial Mail, February, 1977; "Focus on Structural Unemployment", South African Labour Bulletin, Vol. 4, no. 4 (July, 1978); Alec Erwin's article in that issue places some emphasis on the effects of the mix of products.
12. The proposition that the mix of products is more important in determining manufacturing capital-intensity than the choice of techniques also has been made by S.A. Morley and G.W. Smith, "The Choice of Technology : Multinational Firms in Brazil", Economic Development and Cultural Change, Vol. 25, no.2, 1977.

On purely theoretical grounds, there need be no relationship between industrial sector and factor intensity. Assuming substitutable factors of production, differences in resource endowments, factor prices and market sizes could conceivably lead to very different rankings across countries and over time. In fact, as Table 1 shows, these rankings turn out to be quite similar across three countries; while the relationship is not one-to-one, rank correlations are consistently high. Indeed, for all three countries, subsectors defined here as "unambiguously labour-intensive" are less capital-using than the "unambiguously capital-intensive" group.<sup>13</sup>

Armed with these rankings it is possible to measure whether South African manufacturing is biased towards capital-intensive sectors. One possible approach is to compare South Africa's industrial structure with that of countries like Korea, with a manufacturing sector heavily oriented towards labour-intensive exports,<sup>14</sup> and Brazil, historically the archetypal example of the heavy industry, import substituting bias.<sup>15</sup> Another approach is to compare the South African structure with some measure of the "average" mix of industries at the appropriate level of income.

Chenery and Taylor<sup>16</sup> provide econometric estimates of these averages. Drawing on a sample of fifty countries, they estimate industrial structural norms for 'large', 'small primary-exporting' and 'small manufactures exporting' countries. South Africa lies on the margin between the

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13. *The 'difficult to classify' category includes both sectors whose rankings diverge widely from country to country and sectors that appear to be intermediate to those in the 'unambiguously labour-intensive' and 'unambiguously capital-intensive' sectors.*
  14. *Kwang Suk Kim and Michael Roemer. Growth and Structural Transformation (Cambridge: Harvard University Press, 1979).*
  15. *I.M.D. Little, T. Scitovsky and M. Scott. Industry and Trade in Some Developing Countries. (London: Oxford University Press, 1970).*
  16. *Hollis Chenery and Lance Taylor, "Development Patterns : Among Countries and Over Time", Review of Economic and Statistics, November, 1968.*

TABLE 1 : CAPITAL-INTENSITY<sup>1</sup> RANKINGS FOR THREE COUNTRIES

<u>Sector</u>	<u>USA</u>	<u>Brazil</u>	<u>Korea</u>
<u>Unambiguously labour-intensive</u>			
Clothing	1	1	1
Leather	2	3	4
Lumber and Wood	3	5	5
Furniture and Fixtures	4	2	2
Textiles	5	3	5
Printing and Publishing	7	5	6
<u>Difficult to Classify</u>			
Fabricated Metals	6	9	8
Electrical Machinery	9	9	10
Other Machinery	10	14	7
Rubber and Plastic	8	14	13
Stone, Clay and Glass	11	5	3
Tobacco	18	5	-
Food Products <sup>2</sup>	15	13	10
<u>Unambiguously capital-intensive</u>			
Transportation	14	16	10
Paper and Allied Products	12	9	14
Primary Metals	13	9	15
Chemicals	17	15	15
Petroleum	19	15	17

Sources: Ian Little, Tibor Scitovsky and Maurice Scott, Industry and Trade in Some Developing Countries (London: Oxford University Press, 1970) p. 90; A.S. Bhalla (ed.) Technology and Employment in Industry, (Geneva: International Labour Organisation, 1975) p. 31; J.J. Stern "The Employment impact of Industrial Investment" (Cambridge: Harvard Institute of International Development, Discussion Paper no. 20, 1977).

- Notes: 1. Capital-intensity is defined as capital per worker.
2. Although for all three countries, the ranking of food products is unambiguously more capital-intensive than the sectors in the unambiguously labour-intensive category, I have included it in the 'difficult to classify' category. The structure and location of food processing may be such that the activity is on the margin between agriculture and industry; given its size (see Tables 2 and 3), inclusion of food data could seriously bias the results.

'large' and 'small primary-exporting' norms. While it is unusually well-endowed with raw materials, its population is somewhat above the cutoff point - fifteen million - used by Chenery and Taylor to separate large from small countries.

Thus, Table 2 compares the structure of South Africa's manufacturing sector with both of Chenery and Taylor's relevant measures, as well as measures of Korean and Brazilian industrial structure. While South Africa's structure turns out to be unambiguously more capital-intensive than Korea's, and little different from Brazil's, the comparisons with Chenery and Taylor's norms are not conclusive. The mix of industries in South Africa is similar to that of the average 'large' less developed country; however, South Africa's industry is somewhat more capital-intensive than that of comparable 'small primary-exporting' less developed countries.

A comparison of the mix of manufactures exports in South Africa, Brazil and Korea reveals more starkly the degree to which South African industry is biased towards capital-intensive sectors. In 1977, labour-intensive textiles and wood products accounted for 48 per cent of Korea's exports and 15 per cent of Brazil's; by contrast these sectors accounted for only 3 per cent of South Africa's manufactures exports. In fact, in 1974 the value of textile imports into South Africa was almost as high as the value added in domestic textile production. And while capital-intensive exports of basic metals and chemicals comprised 12 per cent of Korea's, and 9 per cent of Brazil's manufactures exports, a massive 50 per cent of South Africa's exports of manufactures emanated from these sectors. (See table 3).<sup>17</sup>

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17. *Since metal products exports include fabricated metals - a sector ranked difficult to classify - along with some unambiguously capital-intensive sectors, they have been excluded from the comparative figures in the text. For further evidence of South Africa's capital-intensive manufactures export orientation, see G. Ariovich, "The Comparative Advantage of South Africa as Revealed by Export Shares". South African Journal of Economics, (Vol. 47, No. 2, June, 1979).*

TABLE 2 : A COMPARISON OF INDUSTRIAL SECTORS

(Sectoral Value added as a percentage of manufacturing Value Added)

Sector	Korea <sup>1</sup>	Brazil <sup>1</sup>	South Africa <sup>1</sup>	'large' <sup>2</sup>	'small primary' <sup>2</sup>
Food	25.01	17.75	14.72	20.03	25.83
Textiles	16.49	8.31	6.70	7.45	7.10
Leather	0.21	0.49	0.50	0.78	1.00
Clothing and Footwear	3.94	2.84	5.68	5.33	7.76
Wood and Furniture	4.29	3.96	4.48	3.36	5.54
Paper and Prods.	2.52	3.33	3.81	4.24	2.00
Printing and Publishing	2.49	1.96	4.20	4.71	4.60
Chemicals and Petroleum	15.42	12.00	9.89	7.87	9.37
Rubber Products	2.11	1.48	2.63	2.28	1.55
Non Metallic Minerals	7.00	5.51	7.52	6.52	5.60
Basic Metals	3.91	14.31	9.96	15.22	7.59
Metal Products	12.31	21.41	26.22	22.20	22.06
Transportation <sup>3</sup>	3.85	8.64	6.20	-	-
Other	4.30	1.65	3.69	-	-
<b>TOTAL</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source: United Nations, Yearbook of Industrial Statistics, 1977 (New York, 1978).

- Notes:
1. South African measures are for 1970, and Korean and Brazilian for 1972 and 1974 respectively.
  2. Chenery and Taylor's measures are computed using South Africa's 1970 population and GDP per capita measures (the latter amounting to \$521 in Chenery and Taylor's units of constant 1960 dollars).
  3. Transportation is also included in metal products share of manufacturing.

TABLE 3 : MANUFACTURES EXPORTS, BY SECTOR, 1977 (percentage of total manufactures exports)

<u>Sector</u>	<u>Korea</u>	<u>Brazil</u>	<u>South Africa</u>
Food	2.70	50.53	25.87
Textiles	43.09	12.28	2.32
Wood Products	4.54	2.31	0.77
Paper Prods.	0.97	1.25	4.63
Chemicals	7.24	4.63	11.97
Non-metallic minerals	2.92	0.71	1.35
Basic metals	4.64	4.27	38.42
Metal Prods.	28.40	22.24	13.90
Other	5.50	1.78	0.77
TOTAL	100.00	100.00	100.00

Source: United Nations, Yearbook of International Trade Statistics, 1978 (New York, 1979).

Explaining the orientation. What accounts for South Africa's orientation toward capital-intensive sectors of manufacturing? One hypothesis is that this orientation is a reflection of the country's abundant supply of raw materials. To the extent that natural resource intensive sectors also are capital-intensive,<sup>18</sup> linkages consistent with South Africa's comparative advantage may generate capital-intensive industry, abundant low-wage labour notwithstanding.

Fragmentary evidence suggests an alternative hypothesis, however. In large part the structure of South African industry may have been determined

18. *Though the evidence is ambiguous, there is some empirical support for this proposition; see Michael Roemer, "Resource-based Industrialisation in the Developing Countries: A Survey, Journal of Development Economics, No. 6, 1979, pp. 163-202.*

by the selective application of various barriers to trade,<sup>19</sup> barriers whose origins lie in South Africa's twentieth century political economy.

To be sure, the evidence on this score is not conclusive. For the most part, South African tariffs are not especially high by international standards.<sup>20</sup> On the other hand, at least since 1948, tariffs have played very little role in South Africa's trade policies. Quantitative restrictions and selective government subsidies have been the preferred policy instruments.<sup>21</sup> A detailed computation of the structure of South African industrial protection is beyond the scope of this paper.<sup>22</sup> Nonetheless, the evidence that South African manufacturing is biased in a capital-intensive direction, together with the strong possibility that this bias results in part from government policies towards industries, makes it worthwhile to explore why government might have favoured capital-intensive industry.

19. T.A. Du Plessis, *The Industrial Growth Pattern and the Real Forces of Economic Expansion in South Africa*, unpublished D.Com. thesis (University of South Africa, 1968), applying a model developed by Chenery, Shishido and Watanabe (*Econometrica*, 1962) demonstrates that import substitution accounts for much of industrial growth; however he fails to discuss the role industrial protection might have played, let alone the political economy of tariffs. Marcelle Kooy and H.M. Robertson, "The South African Board of Trade and Industries, the S.A. Customs Tariff and the Development of South African Industries", *South African Journal of Economics*, Vol. 34, No. 3, September, 1966, dispute the contention that protective policies were largely responsible for industrial growth before 1948; however they offer no alternative explanation for the orientation of South African manufacturing towards the capital-intensive industries.
20. For details of South Africa's tariff structure, see Merle Holden and Paul Holden, "An Intertemporal Calculation of Effective Rates of Protection for South Africa", *South African Journal of Economics*, Vol. 43, no. 3, September, 1975.
21. Desmond Lachman, "Import Restrictions and Exchange Rates", *South African Journal of Economics*, Vol. 42, no. 1, 1974, notes that permits were required for 91 per cent of South Africa's imports.
22. In principle this calculation is feasible. First, estimates of the extent of government subsidies must be made for each subsector; then the tariff equivalent of the quantitative restrictions prevailing in each manufacturing subsector must be calculated, perhaps using the differences between the landed and market prices of imports as a guide. Adding existing measures of effective tariff rates will reveal the overall influence of protective measures.

Three complementary pressures lie at the heart of South Africa's twentieth century political economy - the efforts of a nationalistic elite to establish a domestic industrial base independent of the colonial mining elite, the efforts of white workers to obtain protected, high-wage employment, and the efforts of various governments to restrict the migration of blacks into urban industrial areas. The promotion of capital-intensive sectors of industry furthered all three of these goals.

Turning first to efforts to achieve domestic industrialisation. Prior to 1924, the most rapidly growing industries were largely those that supplied inputs to mining at costs competitive with imports. For the rest, the government made little effort to encourage industry, following instead a policy that accepted the apparent logic of comparative advantage. In 1924, however, an alliance of white workers, white farmers and incipient industrialists defeated the mining-backed government at the ballot box. The new government actively sought to develop an industrial base independent of the colonial elite, an industrial base built on the production of precisely those manufactures that had hitherto largely been imported. In 1925 tariff protection was invoked for the first time.<sup>23</sup> In addition, the state intervened directly, establishing the state-owned steel firm, ISCOR, in 1929.

By 1933 this PACT government had fallen from power. But the initiative for domestic heavy industry was not long lost. The momentum was sustained first by the disruptive effects on trade of the Second World War, and after 1948 by the Nationalist government. Indeed, prior to the accession to power of the Nationalist government, ISCOR not only secured its position as a domestic steel producer but also played a leading role in the establishment of South Africa's heavy engineering and ferro-alloy industries.<sup>24</sup> ISCOR's initiatives in heavy industry

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23. For details of conflict preceding the institution of protection see David Kaplan, "The Politics of Industrial Protection in South Africa, 1910-1939", *Journal of Southern African Studies*, Vol. 3, No. 1, October, 1976.

24. ISCOR was a substantial shareholder in both the African Metals Corporation, established in 1937, and the Vanderbijl Engineering Corporation, formed in 1945; for further details see South African Iron and Steel Industrial Corporation, *Steel in South Africa*, Pretoria: 1953, pp. 135, 140-41.

have continued almost to the present day. By the late 1970s, ISCOR held substantial interests in twenty mining, metals, and engineering companies via its holding company, METKOR, and an additional thirty firms through its shareholding in SAMANCOR.<sup>25</sup>

Direct government investment in manufacturing was not confined to its interest in ISCOR. Through an intermediary, the Industrial Development Corporation (established in 1940), the government also participated in a wide range of other industrial activities, including the SASOL oil-from-coal venture.<sup>26</sup> The share of the public sector investment in manufacturing continued to rise rapidly after the mid 1960s, from 14.3 per cent in 1967, to 24.8 per cent in 1970, reaching a peak of 39.3 per cent in 1973.<sup>27</sup>

As noted earlier, along with a policy of direct intervention, the Nationalist government instituted the system of quantitative restrictions on imports. In addition, the government courted foreign investors. Multinationals poured into South Africa, concentrated as they are the world over, in capital-intensive sectors of industry.<sup>28</sup> By 1975, almost seven hundred subsidiaries of U.S. and European companies had entered South African manufacturing, 90 per cent of them

25. See *Metkor Annual Report, 1979*, pp. 3-7, and *S.A. Manganese Amcor Ltd., 1975 Annual Report*, p. 34. By the late 1970s there were signs that state-owned enterprises no longer were intended to be a counterweight to private industry; but points of tension clearly remain. Thus, while in 1979 ISCOR sold 30 per cent of its Metkor shareholding to the Afrikaner dominated bank, Volkskas, it refused to sell its share of Samancor to the highest bidder, the Anglo American Corporation. Moreover, ISCOR took advantage of its control of the Sishen-Saldanha railway line to dominate iron ore export trade, despite the presence of two private companies with abundant reserves; and it resisted the (apparently nonetheless successful) attempts of the Anglo American subsidiary, Highveld Steel, to break into the domestic steel market.
26. See D. Hobart-Houghton, *The South African Economy* (London: Oxford University Press, 2nd ed., 1967) pp.195-6. In 1979, the South African government sold off a share of its ownership in SASOL.
27. South African Reserve Bank, *Quarterly Bulletin of Statistics*, (Pretoria: December 1974).
28. For explanations of this sectoral pattern, see Richard E. Caves, "The International Corporation: The Industrial Economics of Foreign Investment", *Economica*, 38, February, 1971; see also Raymond Vernon, "International Trade and International Investment in the Product Cycle", *Quarterly Journal of Economics*, 80, May, 1966, and S.H. Hymer, *The International Operations of National Firms* (Cambridge: MIT Press, 1976), based on the author's 1960 Ph.D. thesis.

after 1948.<sup>29</sup> The role of direct foreign investment in South Africa was radically altered. Once concentrated in mining, and allied with political interests actively hostile to the creation of infant industries, the new multinationals were integral participants in the process of creating an industrial counterweight to this earlier elite.

South Africa's industrialising elite would not have achieved these successes were it not for the presence of other powerful allies in the country's white population. White workers in particular played a major role in the ruling coalitions of both the PACT and Nationalist governments.<sup>30</sup> In part, this alliance was based on the industrialising fraction of white capital's willingness to support policies that protected white workers from the competition of black labour. At the same time, though, capital-intensive industrialisation itself was consistent with the interests of white labour.

In the early part of the twentieth century, large numbers of South African whites migrated to the cities; despite their potential political power, they were faced with the spectre of poverty.<sup>31</sup> Consequently, they pressured the government for policies which assured them of 'civilized wages'.

For reasons discussed earlier, these demands for high wages could best be met in capital-intensive sectors of industry. Thus by 1975, manufacturing accounted for 22.4 per cent of white employment outside

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29. Information obtained from the *Multinational Enterprise Project*, Harvard Business School. To some extent the expansion in South Africa occurred at a time when Multinationals were extending their networks the world over.
30. See Dan O'Meara, "White Trade Unionism, Political Power and Afrikaner Nationalism", in Eddie Webster (ed.) *Essays in Southern African Labour History*, (Johannesburg: Ravan Press, 1978). See also David Kaplan, "Capitalist Development in South Africa: Class Conflict and the State", (unpublished paper, Institute for Development Studies, Sussex, 1974). Kaplan also focuses on the role of white farming in the political alliance; their role will not be considered in this paper.
31. Carnegie Corporation Commission, *The Poor White Problem in South Africa* (Stellenbosch: 1932); quoted from D. Hobart-Houghton and J. Dagut, *Source Material on the South African Economy* (London: Oxford University Press, 1973) p. 56.

agriculture.<sup>32</sup> Of white manufacturing workers 37.7 per cent were in unambiguously capital-intensive, and only 15 per cent unambiguously in labour-intensive sectors. Average white manufacturing wages were 13.9 per cent above the overall white average wage; and average white wages in capital-intensive sectors of manufacturing were 5 per cent above the manufacturing average, while white wages in labour-intensive sectors were 7.3 per cent below that average.<sup>33</sup>

Along with efforts to establish domestic heavy industry and to attain high wages for white workers, the capital-intensive orientation also was consistent with a third political goal - restricting the urbanisation of South Africa's black population. Capital-intensive sectors demand less low-wage labour than their labour-intensive counterparts. Thus an industrial policy which favours these sectors reduces the immediate costs of limiting urban industry's access to black workers.

Restrictions on urbanisation have independently reinforced the capital-intensive orientation.<sup>34</sup> Thus, the Environmental Planning Act's restrictions on black employment disrupted the labour-intensive clothing industry in the Transvaal. Employment grew at an annual rate of 3.3 per cent between 1955 and 1966, but fell after the promulgation of the Act in 1967 - from 25 127 clothing workers in 1968 to 23 527 workers in 1975, declining to 19 828 workers in 1978.<sup>35</sup>

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32. Whites classified by Simkins as 'working class' account for a disproportionately high share of white employment in manufacturing: 46.02 per cent of white employees in manufacturing were 'working class', compared with an economy-wide figure of 28.69 per cent. See C.E.W. Simkins and D. Hindson, The Division of Labour in South Africa, 1969-1977 (University of Natal, Pietermaritzburg: DSRG Working Paper No. 7, 1979).
33. Calculated from Department of Statistics, South African Statistics, (Pretoria: Government Printer, 1976).
34. The effects of other measures are more ambiguous. For example, migrant labour legislation channelled labour flows administratively; it is unclear whether this canalization reduces or increases industry's access to unskilled labour as compared with an open labour market.
35. See Kristen L. Manos, "The Effect of State Policies in the South African Clothing Industry", (Unpublished Senior Thesis, Harvard University, 1980), especially Chapter 5. To be sure, clothing production in the Cape and Natal increased to fill the gap left by the Transvaal industry. However, as elementary economic theory reveals, substitution only partly offsets the initial effects of a shift in relative prices.

### A Structural Logjam?

The roots of capital-intensive manufacturing appear to lie deep in South Africa's modern political history. As a result, though the capital-intensive orientation exacerbates unemployment and inequality, there are powerful political barriers which will inhibit any shift to a labour-intensive mix of products.<sup>36</sup>

On the other hand, the capital-intensive orientation may be consistent with less far-reaching political and economic reforms. Black workers increasingly are integrated into the capital-intensive economy. In 1979, blacks attained trade union rights for the first time; between 1969 and 1977, the share of blacks employed in skilled, semi-skilled or 'petty bourgeois' occupations rose by one-third, reaching 37.5 per cent of the black work force in 1977; at the same time, whites have been moving out of working-class activities - by 1977 only 28.7 per cent of the white population was working class, down from 34.2 per cent only eight years previously.<sup>37</sup> It is not inconceivable that this incorporation of urban blacks into the economic mainstream may presage their incorporation into the political mainstream.

The evolution of a black urban elite depends, however, on both the maintenance of barriers to mobility of rural blacks and the continuation of capital-intensive industry, able to support higher real earnings for a multi-racial minority. In consequence, a shift from racial to regional segmentation will in itself little alter the enormous disparities of wealth in the African subcontinent.

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36. *There may be added inhibitions to exporting increased labour-intensive production. To the extent that protection has nurtured South Africa's intermediate goods industries, exporters, dependent on local intermediate inputs, will be saddled with costs above those prevailing in other parts of the world. As a result, South African labour-intensive exports may be uncompetitive on world markets.*

37. *Simkins and Hindson, The Division of Labour in South Africa.*

In the face of a capital-intensive industrial structure and continued barriers to urbanisation, only a massive effort to develop black rural areas and extend their resource base could generate higher real incomes for the poorest among the Southern African population.<sup>38</sup> But the prospects of persuading an elite to transfer resources towards rural areas on a suitably massive scale seem dim indeed.

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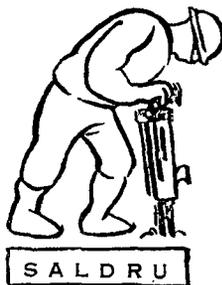
38. For a brilliant study of the kind of effort involved, and the central role which must be played by the public sector, see Yujiro Hayami and Vernon W. Ruttan, Agricultural Development: An International Perspective (Baltimore: John Hopkins Press, 1971).

## **SOUTHERN AFRICA LABOUR & DEVELOPMENT RESEARCH UNIT**

To anybody interested in what is happening in Southern Africa at the present time, it is clear that an understanding of changes taking place in the field of labour is crucial. The whole debate about the political implications of economic growth, for example, revolves very largely around different assessments of the role of black workers in the mines and factories of the Republic. Many of the questions with which people involved in Southern Africa are now concerned relate, in one way or another, to the field generally set aside for labour economists to cultivate. The impact of trade unions; the causes of unemployment; the economic consequences of different educational policies; the determination of wage structures; the economics of discrimination; all these and more are matters with which labour economists have been wrestling over the years in various parts of the world.

At the same time there are many who would argue that these issues are far wider than can be contained within the narrow context of 'labour economics'. These issues, it is pointed out, go to the heart of the whole nature of development. In recent studies, commissioned by the International Labour Office, of development problems in Columbia, Sri Lanka, and Kenya, for example, leading scholars have identified the three crucial issues facing these countries as being poverty, unemployment, and the distribution of income. Thus the distinction between labour and development studies is becoming more blurred as economists come face to face with problems of real life in the Third World.

It is here too that an increasing number of people are coming to see that study of the political economy of South Africa must not be done on the assumption that the problems there are absolutely different from those facing other parts of the world. Indeed it can be argued that far from being an isolated, special case, South Africa is a model of the whole world containing within it all the divisions and tensions (black/white; rich/poor; migrant/nonmigrant; capitalist west/third-world; etc.) that may be seen in global perspective. Be that as it may, the fact remains that the economy of Southern Africa (for the political and economic boundaries are singularly out of line with each other) is one of the most fascinating in the world. It is one on which far more research work needs to be done, and about which further understanding of the forces at work is urgently required. It is in order to attempt to contribute to such an understanding that SALDRU is issuing these working papers.



**SALDRU**

**Division of Research**

**School of Economics**

**University of Cape Town**

**7700 Rondebosch**