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Industrialisation and the decline of the coastal cities in South Africa: A neglected dimension

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Empirical evidence points to a mismatch between the growth of population and the growth of manufacturing activity among the metropolitan centres of South Africa. While the coastal metropoles lag behind the PWV and certain secondary cities and towns in terms of manufacturing growth, the opposite applies to urbanization. Various market failures and policy-induced distortions may have contributed to the relatively poor performance of manufacturing in the coastal cities. Until such time as these distortions have been completely removed by suitable changes to government policy, temporary subsidies to offset the disadvantages of the coastal areas may be advisable.

Much has been said and written about the decline in the growth of manufacturing output and employment in South Africa during the past fifteen years (Van Zyl, 1984, 1986; Black & Stanwix, 1986; Wellings & Black, 1986; McCarthy, 1988). Several writers have also focused on the relative shift of the manufacturing industry away from the metropolitan regions to other urban, semi-urban and rural areas in the country (Bell, 1983, 1986; Tomlinson & Addleson, 1986). Others have been concerned with the metropolitan regions themselves, pointing to the rapid growth of manufacturing activity in the Pretoria-Witwatersrand-Vereeniging (PWV) region relative to the rest of the country, and particularly in relation to the coastal metropoles of Port Elizabeth/Uitenhage (PEU), the Cape Peninsula (CP) and Durban-Pinetown (DP) (Black et al, 1987). The decline of the coastal cities represents perhaps the most significant regional change in the South African economy over the past two decades.

It is with this latter change that we shall be mainly concerned here. Our basic argument will be that the decline of the coastal cities relative to the PWV and other parts of the country has been facilitated by market failures and the discriminating effects of various government policies (DBSA, 1989). These imper-

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fections would have given industrialists in the PWV and elsewher an unfair competitive advantage over their counterparts in the coastal cities, thus providing a *prima facie* case for *appropriate* policy action. Such actions might well include a range of first and second best policies aimed at doing away with the various distortions or at least compensating the losers for their discriminating effect.

As is generally known, however, the government instead chose to promote industrialisation in a large number of relatively remote industrial development points (IDPs), most of which were initially selected for political reasons. It is thus hardly surprising to find that the government's decentralisation policy has met with very little success: it has failed to utilise comparative cost advantages in the regional economies, inhibited industrial growth in the national economy, and burdened the tax payer with a more or less perpetual subsidy (DBSA, 1989). It is indeed tempting to argue that most of the money, effort and time that have gone into the development of IDPs could have been spent more profitably elsewhere. Secondary cities, and especially the coastal metropoles, are obvious candidates in this regard, and in the rest of this paper we shall try to show why it has become necessary to take a fresh look at regional policy in South Africa today.

The paper itself is divided into four parts. Section 1 deals with the factual situation and shows the extent to which the coastal cities have tended to lag behind the rest of the country, and particularly in relation to the PWV region. Some of the reasons for this changing distribution of manufacturing activity are discussed in sections 2 and 3, while the general policy implications are briefly considered in section 4.

1. THE PWV AND THE COASTAL METROPOLES

It is generally known that manufacturing activity in the metropolitan centres experienced a steady relative decline during the period 1970–79. Although these centres did recover slightly between 1979 and 1982, the long-term trend appears to have continued during the subsequent three years. Thus, Table 1 shows that the contribution of the metropolitan areas to the net value of total

Table 1 — Net value of output in manufacturing industry

	(Percentages)					
	1970	**1972**	**1976**	**1979**	**1982**	**1985**
Metropolitan regions	82,4	81,0	80,2	79,4	79,6	78,8
Pretoria/Witwatersrand/ Vereeniging*	50,7	51,1	52,2	53,1	52,5	52,6
Coastal metropoles	31,7	29,9	28,1	26,4	27,1	26,2
Durban/Pinetown	12,9	13,1	12,8	12,5	12,0	12,1
Cape Peninsula	11,6	10,6	9,6	8,8	9,4	9,1
Port Elizabeth/Uitenhage	7,2	6,2	5,7	5,1	5,7	4,9

* Defined to include regions 65 and 71 to 78, as specified in the 1985 manufacturing census.

Source: *Census of manufacturing*, 1970, 1972, 1976, 1979, 1982, 1985.

manufacturing output decreased from 82,4 per cent in 1970 to 78,8 per cent in 1985. A similar trend applied to the corresponding share of manufacturing employment which, as shown in Table 2, declined from 78,1 per cent in 1970 to 73,4 per cent in 1985.

Of more importance are the observed differences in the relative performance of the metropolitan regions themselves. Table 1 indicates that the share of net output manufactured in the PWV area actually increased from 50,7 per cent in 1970 to 52,6 per cent in 1985. Its share of manufacturing employment decreased only slightly between 1970 and 1982, but then underwent a rather dramatic fall during the subsequent three years. While this indicates a marked increase in the capital intensity of production, there can be no doubt that in terms of the level of manufacturing output, the PWV has managed to improve its relative position *vis-à-vis* the rest of South Africa, at least until 1985.

The coastal cities, by contrast, have suffered severely. Their combined contribution to net manufacturing output was 31,7 per cent in 1970. By 1985 it had shrunk to 26,2 per cent. In terms of employment as well, their relative contraction, if less pronounced, was equally unambiguous — from 32,0 per cent in 1970 to 29,8 per cent in 1985. The most significant declines were registered in CP and PEU whose combined share of net output in 1985 was some 26 per cent less than in 1970. Although the DP region performed somewhat better, the decline in its share of net output relative to the PWV and the rest of South Africa was also unmistakable.

These figures indicate that the poor performance of manufacturing in the metropolitan areas between 1970 and 1985 was a direct consequence of the relative decline in the contribution of the coastal metropoles to total manufacturing production in South Africa. As is evident from Table 1, this decline exceeded the increase in the corresponding share accruing to the PWV region.

There is reason to believe that the 1985 manufacturing census may have underestimated the level of manufacturing activity in the IDPs. The regional industrial development programme (RIDP), or decentralisation policy as it is commonly known, may have contributed to a significant increase in the periph-

Table 2 — Total employment in manufacturing industry

	(Percentages)					
	1970	**1972**	**1976**	**1979**	**1982**	**1985**
Metropolitan regions	78,1	76,7	76,1	75,0	75,7	73,4
Pretoria/Witwatersrand/ Vereeniging*	46,1	45,6	45,6	45,4	45,5	43,6
Coastal metropoles	32,0	31,1	30,6	29,6	30,2	29,8
Durban/Pinetown	13,6	13,7	13,7	13,6	13,5	13,5
Cape Peninsula	12,0	11,3	11,3	10,8	11,7	11,2
Port Elizabeth/Uitenhage	6,4	6,1	5,6	5,2	5,0	5,1

* Defined to include regions 65 and 71 to 78, as specified in the 1985 manufacturing census.

Source: *Census of manufacturing*, 1970, 1972, 1976, 1979, 1982, 1985.

ery's share of total manufacturing output and employment (DBSA, 1989). The annual reports of the Decentralisation Board point to a substantial rise in the actual number of manufacturing jobs that can be attributed to the decentralisation programme, and it is estimated on the basis of this data that between 10 and 12 per cent of current manufacturing employment may have come into being as a direct result of the RIDP since 1982. This growth is not reflected in the 1985 manufacturing census. There are unavoidable delays in constructing a comprehensive register of manufacturing enterprises, and industrial censuses may lag by up to two years behind actual growth in the case of rapidly expanding development centres. Since the first batch of projects under the new RIDP only came on stream during 1984, it seems reasonable to conclude that the 1985 manufacturing census 'pre-dates' most of the recent growth in peripheral areas.

It is therefore fairly certain that manufacturing employment in the metropolitan centres has decreased significantly relative to the rest of South Africa since 1982, and especially since 1984, and the relevant share may have been as low as 68 per cent by 1987 (DBSA, 1989). This translates into a decrease of almost 8 percentage points over the five-year period 1982 – 87, and contrasts sharply with the decrease of 4,7 percentage points over the fifteen-year period 1970 – 85.

However, it is less clear how the effects of the RIDP have been distributed among the four metropolitan areas. Contrary to the results of the 1985 census, indirect evidence suggests that PEU and DP may have been under particular pressure from the impact that the RIDP has had on regions D and E, respectively (DBSA, 1989). More than 50 per cent of all jobs established in terms of the programme are located in these two regions. It is therefore likely that, of the total number of jobs 'diverted' from metropolitan areas, the proportions from PEU and DP may well have exceeded their respective shares of total metropolitan employment. This would imply that the RIDP has had a stronger negative effect on PEU and DP than on the PWV region. In any event, a fuller analysis will have to await the results of the 1988 manufacturing census.

Turning now to the growth of population in the metropolitan areas, it is important to note that accurate estimates are difficult to obtain as they depend, *inter alia*, on the chosen boundaries. The estimates provided in Table 3 are based on fairly broad definitions which, in the case of DP and the PWV, include the surrounding periurban homeland areas. It is strongly suspected that most of the increase in the population of the Durban complex occurred in informal settlements in KwaZulu.

Table 3 indicates that DP is the fastest growing complex with an average population growth rate of 4,2 per cent per year between 1980 and 1987. The population growth rate in the other two coastal cities also appears to exceed the national average — 3,3 per cent in CP and 3,7 per cent in PEU. Most of this growth resulted from large-scale migration from Ciskei and Transkei which is likely to continue for some time to come.

The PWV region, however, even if broadly defined to include parts of Bophuthatswana and KwaNdebele, is growing somewhat below the national average. The primary factor inhibiting urbanisation in this area appears to be a shortage of available land for black residential development.

Population pressure in the coastal areas is likely to get worse in future. The hinterland populations of the coastal cities are much larger, relative to the size

Table 3 — Population trends: 1980–87

	Population (Millions)		Average annual growth rate 1980–87
	1980	1987	
Pretoria/Witwatersrand/ Vereeniging	6,2	7,5	2,6
Durban/Pinetown	2,5	3,4	4,2
Cape Peninsula	1,8	2,5	3,3
Port Elizabeth/Uitenhage	0,7	0,9	3,7
SATBVC	29,5	35,4	2,7

Sources: DBSA, 1989; Population Censuses, 1980 and 1985; Urban Foundation (private communication).

Table 4 — Regional per capita GGP: 1987

Region	Population distribution	GGP distribution	Per capita index
A	9,1	12,6	1,4
B	2,9	2,8	1,0
C	6,9	5,8	0,8
D	12,8	7,2	0,6
E	24,6	14,3	0,6
F	5,8	8,4	1,4
G	12,0	3,8	0,3
H	21,2	39,9	1,9
J	4,8	5,2	1,1

Source: DBSA, 1989

of their economies, than is the case in the PWV region. This is illustrated in Table 4, which shows the regional distribution of population and the gross geographic product (GGP), as well as an index of per capita GGP. Regions D and E emerge as two of the three regions in which the ratio of economic activity to population is most depressed. While the lack of opportunity in regions D and E may well encourage migration to the PWV area, there are several factors that might militate against such a move. These include the distance factor and the extent and duration of existing social networks, both of which can be expected to induce further migration from the hinterland to the coastal cities within regions D and E themselves.

On the whole, it would appear that a degree of mismatch exists between the growth of population and the growth of manufacturing output and employment in and among the metropolitan regions of the country. While the coastal metro-

poles have lagged significantly behind the PWV in terms of the growth of manufacturing output and, to some extent, employment as well, they have also experienced higher rates of population growth than the PWV complex. If these trends are set against the rapid growth of manufacturing industries in the IDPs, it is clear that the current decentralisation policy has largely circumvented those centres where the need appears to be greatest, and where the potential for self-sustaining growth is evidently much higher than in the IDPs and homeland areas. The question, therefore, is whether a case can be made for redirecting the present policy towards the coastal cities of the country. As mentioned before, the economic rationale for such a new approach will depend on the extent to which prevailing market failures and policy distortions tend to favour the PWV at the expense of the coastal metropoles.

2. MARKET FAILURE

The decline of manufacturing production in the coastal cities may be partly related to real market forces. Their respective markets are, after all, smaller than that of the PWV region, while they may also lag behind the PWV in terms of their ability to generate internal and external economies of scale. Moreover, changes in transport technology may have discouraged importing manufacturers from establishing themselves in the coastal centres. The roll-on-roll-off system of containerised transport makes for greater integration between rail and sea transport, and thus removes the necessity to transfer cargo to importers on arrival at ports. These changes, coupled with a steady shift towards air transport, may have contributed to a gradual erosion of the seaports' traditional locational advantage.

However, part of the growth of manufacturing output in PWV could have resulted from the inability of private industrialists to incorporate certain externalities into their cost calculations and pricing decisions — a situation commonly known as market failure. For example, the growth of the PWV may be considered excessive if the incidence of external diseconomies tends to predominate the agglomeration economies normally associated with large industrial complexes. Under these circumstances the process of industrialisation itself may be held responsible for various forms of pollution, congestion and urban decline, which detract from the quality of life in the area. However, such diseconomies are difficult to quantify and there are few, if any, studies that unambiguously indicate the existence of overconcentration (Renaud, 1979).

The costs of infrastructural and other services bear an ambiguous relationship to city size. While transport costs and land prices tend to increase with city size, education, health and other social services may well derive certain benefits from increased population density and economies of scale. It is not at all clear which of these trends is likely to predominate at various stages of urban growth, and there is indeed nothing to suggest that the PWV region has already reached a stage in which external diseconomies outweigh agglomeration advantages. Nonetheless, if the PWV area should continue to grow in future, as might be expected, it would seem both inevitable and desirable for this to be accompanied by a gradual process of deconcentration and decentralisation (Dewar, 1987).

Market failure may also arise from the inability of individual firms outside the PWV area to expand their operations and thereby secure the benefits of internal and external economies of scale (Black *et al*, 1987). As far as internal economies are concerned, some firms may choose not to expand their scale of oper-

ation because of a lack of information or the uncertainty connected with such a major adjustment. Such firms will naturally forego the advantages of a larger scale of production, which include the financial savings that may result from bulk-buying and the real savings arising from labour specialisation and efficient management.

Likewise, individual firms may fail to realise external or agglomeration economies of a pecuniary and technological nature. This may be due to a lack of knowledge about the mutual advantages to be had from vertical and horizontal integration within the industry or region. These may include lower material costs, a larger supply of skilled labour, savings on transport costs and better financial services. If private industrialists do indeed underestimate the social benefits associated with their own investment plans, it seems unlikely that sufficient investment will be forthcoming within a relatively free market environment. Such firms may be viewed as having infant industry status insofar as they experience high initial costs of production involving great risks and uncertainty, and are therefore unable to utilise their potential capacity.

Although the issues raised here are admittedly somewhat speculative, there can be little doubt that market failures are more likely to put the coastal cities at some disadvantage compared to the PWV. The basic reason is that information networks are generally more extensive and reliable in a large urban complex such as the PWV than in smaller centres and rural areas (Hägerstrand, 1967; Brown, 1969). However, it should also be recognised that the planning authorities themselves may not have the necessary information at their disposal either, and can hardly be expected to launch a major policy-induced push towards the coastal areas on the basis of externalities which are of uncertain dimension and character.

3. POLICY DISTORTIONS

It is possible to distinguish between several economic policies that tend to drive a wedge between the private and social costs of production in those industries and regions most affected by them. These policies often have the effect of either lowering the private cost of production or raising it above the socially acceptable level, and in either case they are bound to discriminate between different industries and regions. Of course, South Africa is not alone in this, and in the case of South Korea, for example, Pack & Westphal (1986) referred to such interventions as 'errors of commission' which tended to interfere with the efficient functioning of markets.

A case in point is the policy of *import substitution*. Following the recommendations of the Viljoen Commission in 1958, import tariffs were extended to include the protection of intermediate products and, eventually, processed raw materials and capital equipment. This, coupled with an overvalued exchange rate, had the effect of lowering effective levels of protection on many final consumer goods as it tended to raise the cost of material inputs used in these industries (Van Zyl, 1986). The latter included the manufacturers of clothing, footwear, pharmaceutical products, electrical machinery and motor vehicles. Consequently, producers of consumer goods using manufactured inputs found it increasingly difficult to compete in both local and international markets due to the cost-raising effect of upstream protection. At the same time, however, upstream manufacturers using primary inputs benefited from the increased protection and managed to raise their share of manufacturing output and exports (Black *et al*, 1987).

The manufacturing sector in CP, PEU and other coastal locations exhibits a bias towards the production of final consumer goods for the non-local (mostly PWV) market, using manufactured inputs largely procured from non-local sources. However, as mentioned above, industries with these characteristics face the greatest disadvantage in competing with outside producers due to the cost-raising effect of the policy to protect material inputs. This has meant that many raw and semi-processed materials which used to be imported into South Africa are increasingly being manufactured in the PWV area. Consequently, coastal locations such as PEU, which are situated far from their main markets in the southern Transvaal, have largely lost their import-export advantage. In particular, it would appear that the local content programme imposed on the motor vehicle industry has resulted in PEU losing much of its comparative advantage in a sector on which it relies for over 60 per cent of its output (Black *et al*, 1987). However, the regional impact of import substituting industrialisation goes well beyond this example, and is arguably one of the most important factors accounting for the relative decline of the coastal areas.

Secondly, the *pricing policies* of the state and certain public enterprises may well contribute to the subsidisation of industries in the PWV and lead to a heightening of what is loosely termed urban bias in South Africa. It is important to note that we are not referring here to the natural agglomeration advantages of large urban complexes. What is at issue are urban-biased policies that entail an element of cross-subsidisation in the sense that they are paid for partly by revenue raised in the rest of the country. These policies distort the spatial distribution of industrial activity and undermine efficiency in the economy as a whole.

There are several notable examples of this phenomenon (DBSA, 1989), of which transport policy is perhaps the main culprit. Commuter transport in metropolitan areas receives a substantial subsidy from the national budget, while rail tariffs are deliberately structured in favour of the transport of raw materials as opposed to final goods. This creates an incentive for producers to locate close to the market, rather than near the sources of raw material inputs. Water provisioning and agricultural pricing policies also have similar effects. In all these cases, economic activity in metropolitan areas is supported by revenue raised elsewhere in the country. Although these policies tend to favour all the metropolitan regions and not only the PWV, the latter area may be expected to benefit most from urban bias due to the size of its manufacturing sector, commuting labour force and consumer population.

Thirdly, the *wage policies* of government, trade unions and large corporations may well favour the PWV region where across-the-board wage increases are more readily offset by increases in labour productivity. By way of contrast, productivity levels in the coastal areas and elsewhere appear to be lower due to their industrial structure, and as a result of insufficient training, absenteeism, high turnover rates and a deficient capital stock. Thus, it would appear that industries in the PWV are in a better position to cope with nation-wide wage increases than industries elsewhere. National wage determination tends to stunt the relative growth of manufacturing production in areas which rely on low wages as a potential source of comparative advantage.

Finally, the argument with regard to wage policies can be extended to many other *regulations* as well. Licensing fees, high taxes and inappropriate standards of health may well discriminate in favour of the PWV region where firms

are more able to absorb cost increases than their counterparts elsewhere. If these regulations are legally enforced upon the less developed cities and towns, a *prima facie* case would seem to exist for removing them forthwith or for compensating the losers by means of an appropriate policy. This is not to suggest that Marshallian conspirators are limited only to private and public institutions in the PWV area. But the case for a suitable programme of deregulation, and more specifically for a lowering of standards, does seem to have more appeal in the context of lower income regions.

4. GENERAL POLICY IMPLICATIONS

The preceding discussion has highlighted the changing distribution of manufacturing activity between and among the metropolitan and non-metropolitan regions of the country. We have been chiefly concerned with the rapid growth of manufacturing output in the PWV relative to the rest of the country, and particularly with its growth in relation to the coastal metropoles of CP, PEU and DP. Our analysis indicates that there has been a dramatic decline in the contribution of the coastal cities to total manufacturing output and, to a lesser extent, manufacturing employment, while they have also experienced higher rates of population growth than the rest of the country. If these trends are compared with the rapid growth of industry in the various IDPs, it is evident that the current decentralisation policy is confined to a rather inappropriate fragment of the overall regional problem in South Africa.

We have argued that the growth of manufacturing activity in the PWV relative to the coastal cities and other regions can be partly attributed to various market imperfections and government failures. These include the possible existence of external diseconomies of scale in the PWV, the lack of information and uncertainty associated with industrial expansion in the rest of the country, and the discriminating effects of several national policies which tend to give industrialists in the PWV an unfair competitive advantage over their counterparts elsewhere. It is these failures, together with the obvious differences in agglomeration advantages between the coastal metropoles and IDPs in particular, that provide the broad rationale for a new look at regional policy in South Africa today.

In terms of the above analysis, it could be argued that the overall objective of maximum efficiency does not necessarily clash with the regional objective of a more equitable distribution of resources. In other words, a policy aimed at promoting industrial development outside the PWV area may also encourage a more efficient allocation of resources in the national economy. This implies that certain regions and locations outside the PWV may have a potential comparative advantage in the production of those goods in which the country as a whole is deemed to have a dynamic comparative advantage. However, these regional advantages have been considerably weakened by market failures and the discriminating effects of public policy.

The question that now arises is what, if anything, can be done to rectify the situation. A 'first best' solution would be the removal of all obstacles that tend to impair the allocation of resources between the different regions of the country. As indicated in the previous sections, this might include the phasing out of the current decentralisation policy, the dissemination of information to producers outside the PWV area, tariff relief to certain industries in regions importing intermediate and capital goods, the introduction of full-cost pricing for

public services, flexible wage policies, and a suitable programme of deregulation. If the Korean and Taiwanese experience is anything to go by (Kuo *et al*, 1981; Pack & Westphal, 1986; Chou, 1985; Smith, 1985), a policy of 'getting the prices right' should go a long way towards supporting and sustaining a process of structural adjustment and export-oriented growth.

Indeed, there is reason to believe that the depreciation of the exchange rate in 1985 has given South African exporters a decisive advantage in certain world markets. Many of them have also reached full capacity and now face the choice of having to invest in new plant and machinery. However, in the light of numerous uncertainties surrounding the question of sanctions and political change, very few industrialists seem prepared to take such a step. Nonetheless, progress on the political front, coupled with increased accessibility to both foreign and domestic markets, should ultimately benefit both the national economy and its constituent regions.

Even then, however, a case for a national *sectoral* policy could be made on efficiency grounds (Pack & Westphal, 1985). Such a policy may be required to reinforce dynamic adjustments to changes in comparative advantage which, if left to the market, may prove to be hazardous and sluggish. Individual firms are likely to act on incomplete information and thus be slow to perceive changes in comparative advantages; that is, production patterns may not change when it would be beneficial for this to happen. However, the success of the policy will clearly depend on the ability of the planning authorities to identify those sectors and industries in which the national economy has an existing or evolving comparative advantage: if private entrepreneurs can make the wrong decisions at times, it can hardly be expected of even a benevolent public administrator to keep abreast of dynamic changes in the market place.

However, if first-best policies should prove difficult to implement in practice, as may well be true in South Africa, the case for a national sectoral policy is somewhat weakened. The selective encouragement of certain national sectors and industries may, for example, discriminate against those regions in which the selfsame sectors and industries are seriously affected by market failures and policy distortions. The efficiency of such a national policy is thus likely to be undermined by the inability of certain regions to fully utilise their respective comparative advantages. In short, a regional problem would still exist.

Ultimately, it is the continued existence of these imperfections that provides the justification for a regional policy of the more conventional kind. Ideally, such a policy should compensate industrialists only for those distortions that can be deemed to be of a temporary rather than permanent nature. For example, if it is assumed that there are no feasible alternatives to the current policy of import substitution, and that for all practical purposes it has become a permanent feature of industrialisation in South Africa, then it will be relatively inefficient to subsidise growth in the coastal cities. Under these conditions it would make more sense to treat such policy-induced constraints on a par with any other natural resource constraint, in which case the efficiency-related grounds for a regional policy would largely fall away.

On the other hand, if the distortions are considered to be of a temporary nature only, a *prima facie* case can be made for a regional policy aimed at achieving a second-best solution to the problem. Such a policy would compensate industrialists outside the PWV for the cost-raising effects of existing distortions,

and in the process also encourage a more efficient allocation of resources in the national economy as a whole. But this would also imply that the policy itself should cease to exist as soon as all the distortions have been removed: its life expectancy should not be allowed to extend beyond the onset of the first-best economy.

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