THE UNIVERSITY OF MANITOBA

DETERMINANTS OF BLACK WAGES IN THE SOUTH AFRICAN GOLDMINING INDUSTRY FOR THE POSTWAR PERIOD

by

CHRISTOPHER DAVIDS

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ABSTRACT

This thesis attempts to explain wage determination for Black South African mineworkers on the basis of their position within the South African political economy. No free market for Black labour exists in South Africa. Rather, an elaborate network of institutions, maintained by force, ensures the availability of a large low cost labour supply which can be allocated to meet the needs of the various sections in the economy. This thesis thus examines the development of these institutions and analyzes their impact on the process of wage determination in South Africa. It attempts to explain the internal dynamics of the system of apartheid which denies blacks economic and political rights and thus makes them subject to extreme exploitation. Within the gold-mining industry, the institutional network mentioned earlier, has additional dimensions which make it possible for the mineowners to suppress Black wages even further. These specific dimensions, which give rise to lower wages and higher profits than in other sectors of the economy are discussed. The thesis then goes on to integrate these various features of the South African political economy into a model for wage determination on the goldmines. Finally, it analyzes the implications of the structure of wages for the future of the economy. It concludes, that on the basis of the strength of various challenges to the white monopoly of control, particularly in the ideological realm, the entire system is in danger of collapse unless radical changes are made in the structure of economic and political control.

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CHAPTER I

INTRODUCTION: STATEMENT OF PURPOSE AND METHODOLOGY

South Africa, situated at the southernmost tip of the African continent, has for generations provided an interesting field of study for social scientists. The complex, multiracial system existing there does not fit neatly into any model. Yet, the country's strategic position in the international economy when combined with its systemof racial domination has made it a contentious global political issue. Recent developments in the country have sparked a renewed interest and created the need for further research into the underlying dynamics of the social system. It is to that end that this thesis is directed.

South Africa is in many respects a land of contrasts. By far the most glaring contrast is that between the lifestyles of White and Black South Africans. Whereas, Whites generally enjoy a luxurious lifestyle and are accorded most of the civil liberties characterizing a democracy, Blacks generally exist in a world of grinding poverty and are denied even the most elemental civil liberties. This basic contradiction arises from the structure of economic and political control in South Africa. Within the general framework of apartheid, political and economic power are centralized in white hands. This has, over time, permitted the white capitalist class to systematically establish conditions for the superexploitation* of Black labour and the ruthless transfer of the economic surplus from the largely Black

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*Superexploitation in this context refers to the practice of paying workers at a rate below the socially determined subsistence level.

producing classes to the White capitalist class and the state. As part of the overall process, the White producing class has been co-opted into an alliance with the White capitalist class by means of substantially higher wages and legislative safeguards against Black encroachment. This gives the South African social formation its characteristic appearance of an apparently solid White block confronting a divided and powerless Black bloc.

Exceptionally low Black wages resulting from the above structure of production combined with an abundance of raw materials have led to high growth and profit rates within the economy and a steady influx of foreign capital. As a result, the modern sector of the South African economy has become the largest and most sophisticated on the continent whereas the subsistence sector, deprived of the usual sources of capital, has been regressing and is among the most impoverished on the continent. In contrast to international trends, South African economic growth and development has been accompanied by a steady reduction in the rights and liberties of the majority of its population.

South Africa is one of a handful of countries that are considered to be strategic for the interests of the west. This strategic position derives specifically from three basic factors:-
(i) an abundant supply of numerous, relatively scarce minerals and precious metals essential to the smooth functioning of the industries of the western world; (ii) concommitant large scale foreign investments, particularly in mining and manufacturing, which have helped the country become a regional superpower and constitute, in western eyes, defendable interests; (iii) juxtaposition to sea lanes carrying a large proportion of the Western world's oil supplies and its trade in

commodities. These factors are the basis for South Africa's integration into the international economy.

In recognition of South Africa's strategic position, the countries of the west have cooperated in the development of a military-industrial complex within South Africa. This has been accomplished through the large scale transfer of technology and capital to South Africa. As part of this process, the country has developed a virtually self-sufficient armaments industry producing the range of military hard and soft ware. In addition, with U.S. and West German cooperation, South Africa now has a nuclear capability based on extensive reserves of uranium and enrichment facilities at Pelindaba. This, despite the fact that South Africa is not a signatory to the nuclear non-proliferation treaty.

In the postwar period, decolonization and a growing international abhorrence of all forms of racial discrimination has led to the system becoming one of the major political issues and social problems of our time. Over the past few decades, escalating regional and domestic tensions have combined with this international concern to call into question the entire structure of economic and political control within South Africa. How this issue is resolved is of prime importance to the west. Since the West has played a significant role in facilitating the establishment of the status quo in South Africa it has some stake in defending it. On the other hand, dismantling the status quo, while paying heed to the legitimate aspirations of Black South Africans, may in Western eyes serve to undermine the profitability and security of the region. However, the role taken by the West in this sensitive area will be reflected in its relations with the rest of the developing world and the socialist countries. Thus it becomes doubly important to understand the social dynamics of the system and develop the basis for a more informed foreign policy stance towards South Africa by nations of the west.

In order to gain some understanding of current developments within South Africa and their implications, we need to go beyond the news reports and propaganda and unearth the underlying dynamics of the system. Our medium for this task is a study of the goldmining industry in South Africa, particularly in the postwar period.

Gold has always been the engine of growth for the South African economy. It was gold that consolidated South Africa's links to the international economy and provided the first major stimulus to foreign capital. It was this influx of capital that facilitated the transformation of the economy from a precapitalist to a capitalist mode of production. It was in direct response to the needs of the mining industry that much of the institutional basis of present day South Africa was laid. The system of labour deployment developed on the goldmines became the prototype for labour utilization throughout the economy. The social relations obtaining in the goldmining industry thus represent a microcosm of the social relations obtaining in the larger society.

To this day, gold has continued to be a major source of surplus value in the economy, yielding billions of dollars in tax revenues, dividends and undistributed profits. Conversely, black wages in the industry have traditionally been below the subsistence level and below wages obtaining in other sectors of the economy, excluding agriculture.

As a result of, inter alia, extreme limits on the mobility of African labour, no free market for African labour exists in South

Africa. Wages are imposed via industrial council agreements, wage board determinations and in the case of the goldmines, the Chamber of Mines. Understanding the specific pressures and mechanisms influencing wage determination in the goldmines gives a valuable insight into the nature of the system of racial domination being practiced in South Africa.

Statement of Purpose and Hypothesis

The basic purposes involved in undertaking this study include:-

(a) to show that wages in South Africa do not reflect the operation of free market forces but that they result from the conscious manipulation of economic and political variables by the white capitalist class and the state.

(b) to show that the system of racial domination in South Africa is a rational one, based primarily on consideration of profit maximization, and not an irrational one based on racism or prejudice in the form of Afrikaner nationalism.

(c) to show that the resolution of the basic problems facing the economy is not possible within the present framework of economic and political control.

The hypothesis to be tested is: That the level of African wages in the South African goldmines reflects the position of Africans in the political economy of South Africa. Changes in African wages do not reflect changes in African productivity but rather reflect changes in their position in the political economy.

Methodology

Within the field of South African studies, two broad approaches can be discerned. The predominant or orthodox approach is a blend of inequalities within the social system.

A second, alternative approach is the marxist/structuralist approach. The prime tenet of this approach is that the system of racial domination in South Africa is a product of the system of production prevailing there. Since the dominant mode of production is the capitalist one, there are two broad classes which can be distinguished by their relationship to the means of production. These are the owners of the means of production and the workers who are compelled to subsist by selling their labour power to the owners in exchange for wages. Under these circumstances exploitation is said to exist in the sense that the owners of the means of production are able to appropriate for themselves the surplus value from the production through paying workers only the costs of reproduction, i.e. a socially determined subsistence wage. Further, the working class in South Africa is characterized by a division along colour lines, the whites having formed an alliance with the capitalist class. According to this approach, the alliance allows the capitalist class in conjunction with the state to establish conditions suitable for the superexploitation of African labour. Also, the alliance has the effect of mystifying the issue, giving it the appearance of a racial problem, when in fact it is a class problem rooted in the system of production.

It is the contention of this thesis that, while the first approach has yielded some valuable results, the second approach is superior when it comes to explaining developments in the South African social system.

In the first place, given the high levels of economic growth and industrialization which have taken place in South Africa and the concurrent expansion and consolidation of the system of racial discrimination, it makes little sense to begin by characterizing the relationship between the two systems as essentially dysfunctional. In addition, the role of neo-classical economics and race relations studies. With certain modifications for local conditions, it tends to situate developments in South Africa within the framework of models developed to explain the process of modernization in Europe and America. In these models, industrialization is associated with a general liberalizing trend which manifests itself in the gradual extension of political, economic and social rights to the population as a whole. In the South African case, allowance is made for the existence of a subsistence economy. The persistence of this conservative, low income economy is used to explain the abundance of non whites on the market and the low wages paid to them. It is argued that as the market economy expands and the subsistence economy gradually disappears the positive social effects of industrialization will start to take hold. For example, workers will be paid according to their marginal products rather than the colour of their skins. In addition political and social liberties will be extended to all citizens irrespective of colour or social background. The fact that this has not happened despite rapid industrialization is explained by reference to such non material factors as prejudice, racism, nationalism and socio-cultural pluralism which have their roots in earlier periods of South African history. What this approach does is to divide the society into a rational and irrational component. The rational component is represented by the modern sector economy described by neo-classical economics. The irrational component is represented by white racism which manifests itself in the system of apartheid and is described and explained by race relations studies. Over the longer run, it is argued, the imperatives of rational industrialization will act to eradicate the attitudes of the Whites and will lead to a dismantling of the system of racial domination and a gradual levelling out of property owners in establishing and maintaining the system, further belies this dual approach.

A second proposition of the predominant approach is what has been called dualism. The substance of dualism is that what happens in the modern capitalist sector of the economy is not causally related to what is happening in the subsistence sector. Thus, underdevelopment and poverty in the subsistence sector is due to inherent backwardness, i.e. an unwillingness or inability to adopt modern methods of production. As we shall see in more detail later, this proposition belies the entire history of black/white relations in South Africa. The net effect of the interaction between black and white people in South Africa has been the denial of the means for capital accumulation to Africans. It is the specific proposition of this thesis that the underdevelopment of the homelands in general and the subsistence sector in particular is directly related to and in fact caused by the method of development employed in the modern sector.

Underlying the predominant approach are two major philosophical tendencies, that of idealism and empiricism. Idealism refers to a tendency towards seeing and explaining social realities in terms of psychological factors such as attitudes, ideas, beliefs, values and ideology. In the South African case, attitudes (e.g. race prejudice) and ideology (e.g. racism) are used both descriptively and for the purpose of explanation. The basic problem with the idealist approach is the inadequate recognition it gives to material factors in the explanation of social reality. What is in question, is the relative importance it attaches to idealist as opposed to material factors in accounting for social realities. This preoccupation with idealism gives a distorted view of reality in the South African case.

Empiricism refers to a tendency to attempt to understand and explain things merely by describing what is; i.e. equating reality with its specific form and treating all kinds of dependent and derivative factors as given. It, thus, has a heavily descriptive orientation. An empiricist approach suffers from the fundamental weakness that the specific nature of any given social reality is not always clearly apparent in its specific outward form. This problem, referred to as mystification has been the subject of extensive inquiry by both Freudian and Marxist social scientists.

At the more specific level, neo-classical economics while being useful in explaining the process of wage determination in a situation where a relatively free labour market exists, has difficulty in explaining wage determination where no market in the normal sense of the word exists. Similarly, institutional economics while being much closer to the mark because of its emphasis on relative bargaining power misses the boat because it assumes an environment in which institutional countervailing power is allowed to develop. In this scheme of things South Africa might be considered a special case. What we want to develop is an explanation specific to the South African case. The underlying assumptions of these two branches of economics are: negligible or relatively race-neutral government intervention in the market place and government concern for the overall welfare. In the case of state-capitalist economy like South Africa, where the government is a prime mover and by means of institutionalized racism has prevented increases in social welfare amongst the majority of the people, an alternative approach is required.

Likewise, explaining the system of racial domination by saying that it is caused by race prejudice or racism such as is the case in the clear majority of race relations studies is in itself no explanation. We need to go beyond description and tautology and gain an understanding of how and why those attitudes and ideologies came to exist.

This study takes an interdisciplinary approach primarily rooted in political economy. The underlying proposition of this approach is that what happens in the economy cannot be divorced from what is happening in the larger social system. Also, particularly instructive in understanding developments in the economy is an understanding of the political relationships existing in the society. Specifically, this study uses a quasi Marxist/structuralist approach which while rejecting any dogmatic adherence to Marxist principles uses the Marxist framework as an explanatory tool which goes beyond mere description and enables one to unearth the underlying realities of the situation.

Thus, this study rejects the traditional characterization of the South African social system which divides it into a functional and dysfunctional part. It also rejects dualism and cultural pluralism as concepts for describing the system. As part of the adopted approach the system of racial domination is viewed as the superstructure reflecting developments in the economic base. The economy is thus viewed as part of an integrated whole and is analyzed as such.

Outline

(a) Chapter Two provides general background on the South African economy and social system necessary for placing the study in context. It, thus, provides information on items such as evolution of the economy, the nature of the economy, the legal framework, trade unionism and poverty and inequality.

(b) Chapter Three focusses more specifically on background information for the goldmining industry. It, thus, discusses things such as the role of gold in the economy, the organization of the industry, on the job-training, wages and working conditions and the alliance between white labour and capital.

(c) Chapter Four attempts to develop an explanation for the wage behaviour demonstrated by the South African goldmining industry in the postwar period. Specifically, it draws together information from the previous chapters and isolates various factors in the political economy which have a bearing on wage determination in the industry. It then attempts to integrate these various factors into a model explaining the observed behaviour.

(d) Chapter Five discusses the implications of the wage structure and changes in the political economy for the future of the social system. It also evaluates alternative proposals for a reorganization of the current social system.

CHAPTER II

BACKGROUND INFORMATION ON THE SOUTH AFRICAN ECONOMY

Evolution of the South African Economy

The study of history entails more than just a descriptive narrative of events and personalities. It should involve an analysis of broad trends within the society. It should deal also with the impact of different forms of economic organization on the society. Specifically, in the case of South Africa, we need to look at the impact of Dutch merchant capital and British imperialism on the growth and development of the South African social system. Only by such an analysis can one derive a clear understanding of the current situation obtaining in the country.

The evolution of the modern South African economy may be divided into two distinct phases: (i) the era commencing with the arrival of the white man up to the discovery of minerals, roughly 1652 to 1866 and (ii) the era subsequent to the discovery of minerals, roughly 1866 to the present. The major impact of the discoveries was to transform the economy from a precapitalist mode of production, in which subsistence agriculture dominated, to a capitalist mode of production, in which the twin forces of the market and the state came to dominate.

Since the time focus of this study falls within the second period, a greater proportion of this section will be devoted to its exposition.

The year 1652 serves as a good starting point since that is the year in which a permanent link with Europe was established. As Houghton points out, the Cape was thus linked to the international economy 150 years before Australia and New Zealand and 250 years before the interior of Africa (Houghton: 1976, 1).

Jan van Riebeeck, in the company of several other employees of the Dutch East Indies Company, landed at the Cape with a specific mandate to establish and develop a halfway house for Dutch ships engaged in the spice trade. Upon their arrival at the Cape, the Dutch settlers encountered the San and the Khoi Khoi peoples who were hunters and herders respectively. They were amiable people, supplying the settlement with meat in the early going, but they could not be persuaded to work for the Dutch. Since there was a shortage of labour at the Cape, slaves were introduced from the Dutch East Indies. This had the effect of dispensing with the need for unskilled European workers who formed the bulk of immigrants to North America. This shaped the Dutch attitude towards unskilled or menial labour. It became the work for slaves, blacks and others of colour.

The environmental differences between Holland and the Cape had important implications for the Dutch settlers. In Holland, land was scarce and there were no slaves. The opposite was true of the Cape. The result was that, over time the Dutch settlers tended to change their agricultural practices. At the outset, most of them were engaged in intensive agriculture. As the colony expanded, more and more of them switched to cattle ranching. Ultimately, in adapting to the environment, a large proportion of them became semi-nomadic pastoralists (Houghton: 1976, p. 3).

As the settlement grew, the frontiersmen gradually moved north-east in search of grazing land for their stock. At the same time the vanguard of the Xhosa were moving southwest down the coast also in search of grazing land for they too were semi-nomadic pastoralists. All was well as long as there was new land into which to trek.

By the end of the 18th century, however, the Xhosa and the white settlers met head on at the Fish River. The superior weapons and tactical advantages accruing to the whites meant that they were able to match the superior numbers of the Xhosa and hold them at the Fish River for over half a century.

As a result of the Napoleonic wars, the British occupied the Cape in 1795. It was formally ceded to them under the general European peace settlement of 1814. In the wake of these developments a group of some 5,000 British settlers arrived. They were settled along the eastern frontier in order to form a bulwark against the Africans as wars and cattle raiding were quite frequent during this time.

Within the next decade and a half an equal number of Dutch farmers left because they resented the British approach to government. In particular, they resented the "liberal" British attitude towards the non-whites. They moved north across the Orange River through the present Orange Free State and Transvaal and over the Drakensberg mountains until they finally reached the sea in Natal. Natal was annexed by the British in 1843 and most of the Voortrekkers moved back over the mountains. In 1852 and 1854 respectively the government recognized the independence of the two trekker republics, the Transvaal and the Orange Free State.

Intensive farming was impossible in the interior of South Africa due to the lack of domestic market and an inadequate infrastructure. This meant that the majority of farmers, both black and white, were engaged in subsistence agriculture. This presented grave fiscal difficulties for the new republics and they were unable to develop an administrative structure of any sort.

In no sense of the word did an integrated national economy exist. Settlements and production were scattered rather than centralized. Banking was in its infancy and what banks there were, were unit banks with an extremely low level of capital.

The growth and development of a textile industry in Britain provided a market for wool. The introduction of the merino sheep in the 1840's thus provided the colony with its first major export. Other exports at the time included wine from the Cape and sugar from Natal (Houghton: 1976, 10).

Underscoring this period was continuous conflict with the Bantu and Griqua who had been displaced, but had no intentions of giving up what had been theirs for years. In addition, the San and Khoi Khoi were being decimated because they would not be pressed into service by the Dutch and they occupied land the Dutch wanted.

In sum then, the major characteristics of this period were: the extension of the white man's rule to encompass all of what constitutes South Africa today; friction between the displaced tribes and the white settlers; the development of a rift between Dutch and British settlers; and the predominance of subsistence agriculture.

A fall in the price of wool caused a major depression in South Africa in 1865. It was against this black backdrop that the spectacular mineral discoveries of the next few generations were to transform the entire sub-continent.

The discovery of diamonds in 1867 and gold in 1886 had immediate and far reaching effects on the South African economy. The initial effect was to attract large amounts of investment capital and entrepreneurial skills from abroad (Houghton: 1976, 12). The experience gained and profits earned from diamond mining in Kimberley were later to prove invaluable when goldmining started in earnest.

Due to the relatively low grade of ore and the technical difficulties involved in deep level mining, a supreme organizational effort was needed in order to make the whole venture profitable. Through the group system, under which a financial house controlled several mines, risks were minimized and innovations more easily shared (Wilson: 1972, 23). The low grade of ore meant that profit at the margin was very small; to make mining feasible, output had to be maximized and costs effectively controlled (Wilson: 1972, 23).

In order to maximize output a large labour force was needed. Skilled labourers particularly were in short supply and could only be attracted from abroad with high wages. Large numbers of Africans who had previously been engaged in subsistence agriculture formed the unskilled labour complement in the mines. Various measures were implemented to ensure a steady supply of unskilled labour at extremely low wage rates. Among them were legislative matters dealing with taxation, curbs on geographic mobility and land ownership as well as the monopsonistic recruitment of the mines. Through a combination of law and custom, racial stratification of the labour force became a permanent feature of the goldmining industry. It also became the means whereby costs could be minimized. This pattern of labour deployment became the standard feature of the South African economy.

The concentrations of population and capital brought about through the development of mining, provided immediate markets for agricultural products, industrial projects and energy. Taxation from mining provided the revenue necessary to develop an infrastructure. By 1892, for example, the railway from Cape Town extended as far as the Rand (Horwitz: 1967, 63). Since the Rand was deep in the interior of South Africa, the railways had the effect of opening up large areas of the country. Production for markets, both domestic and foreign, was now feasible in the interior of South Africa.

Economic forces were acting towards bringing about a *de facto* integration of the four republics. However, the conservative Dutch administrations of the trekker republics resented the influx of foreigners with their capital and strange ideas. They, therefore, resisted this tendency. They were met with the full force of British imperialism in the Anglo-Boer war. This included concentration camps in which 2,500 people died, a scorched earth policy which all but decimated Boer agricultural potential and a force of 450,000 pitted against 88,000 Boers (Houghton: 1971, 325-328).

If anything, the war crystallized and strengthened latent Afrikaner nationalism. The net result was that by the time of Union in 1910 the former Afrikaner republics were in a relatively strong position. In addition, their bargaining power was enhanced by the fact that the mines and most of the new industries were located in their territories whereas the British territories were faced with heavy railway debts and government deficits (Horwitz: 1967, 70-73).

The British government for its part was willing to establish a neo-colonial relationship with South Africa for British interests controlled the economy and the prevailing social structure guaranteed the continuance of high profit rates.

Thus, despite the fact that they had been defeated in the war, the Dutch were able to extract significant concessions from the British government, by and large, at the expense of the country's non-white population.

In the post-mineral era, foreign trade mushroomed. Exports, for example, increased from R4.2 M in 1861 to R48.3 M in 1901 of which 75% consisted of gold and diamonds (Houghton: 1976, 13). Imports consisted primarily of capital equipment for the mines and developing industry as well as consumer goods. The basic pattern of exporting primary products and importing capital equipment has by and large persisted to this day.

In the decade following the Anglo-Boer war, commercial agriculture was beginning to make some headway. Fueled by the efforts of innovators like Cecil Rhodes, production for both domestic and external markets was gathering momentum. Gradually, both Dutch and African farmers were making the transition from subsistence to commercial agriculture.

Hindering Dutch attempts at rationalization was an antiquated land tenure system which resulted in sub economic farming units (Horwitz: 1967, 17,18). There was thus tremendous pressure from the farmers to expand their holdings and get rid of the <u>bywoners</u>, the landless class in rural afrikaner society. Thus began the poor white problem and the pressure for limiting competition from Africans for both land and jobs. One result of this was the Land Act of 1913 which partitioned the Union into areas for black occupation and separate areas for white occupation. African landholdings were to be limited to these scheduled areas which at the time constituted some 7% of the Union's area. In 1936, against strong opposition from white farmers, provision was made to increase this proportion to 13%. At the time Africans formed some 73% of the population (Houghton: 1976, 22).

During the First World War, the British government paid a premium on gold amounting to some 50% on its prewar statuory price of 85 shillings per ounce (Wilson: 1972, 10). During the same period, working costs had risen quite substantially, partially as a result of general inflationary conditions and partially as a result of the successes of the white mineworker's union. By the end of the war, when it became clear that the British were preparing to revert to the pre-war price, the price of gold started falling and the industry faced a serious profitability crisis (Wilson: 1972, 10). To avert the impending crisis the Chamber of Mines proposed to reduce the ratio of white to non-white workers in the industry. This was met with stern opposition from the white workers who called a strike and armed themselves, ostensibly for the purpose of blockading the mines. Johannesburg was turned into an armed camp and subsequently a battleground as the police and army battled the strikers (Wilson: 1972, 10). Eventually, the rebellion was suppressed and some cost cutting reforms introduced but not before the white mineworkers had shown themselves a force to be reckoned with.

A high level of discontent, widespread poverty and anger at the SMUTS government for its handling of the Rand rebellion led to an alliance between the National and Labour parties which was voted into office in 1924 (Simmons and Simmons: 1969, 323). The primary item on their agenda was the expansion of the industrial sector of the economy in order to accommodate the large number of poor whites (± 300,000) who had been gathering in the towns ever since the turn of the century. This was accomplished by the extension of protective tariffs to a number of industries and substantial investment in other industries, particularly important being the formation of ISCOR in 1928. This was also the era of the "civilized" labour policy which entailed the substitution of white for non-white workers wherever possible. In fact, during this period, the legal basis for a racially stratified labour force was firmly established.

The great depression reduced aggregate output and employment throughout the economy. In industry, white labour, as a result of the civilized labour policy, increased by 4% while non-white labour decreased by 12%. Net output declined by 14% (Houghton: 1976, 125). Farm prices which had been low since the end of the war, plummetted even further. This led to a number of schemes to assist the agricultural sector which culminated in the formation of a national marketing council in 1937 to regulate the marketing of agricultural produce. Meanwhile, devaluation in 1933 led to a goldmining boom which lifted the country out of the depression. The result was a massive surge in output and employment in the manufacturing sector. This trend was given impetus by the advent of the Second World War with its curtailment of imports and stepped up military production. The main beneficiaries of this trend were the iron, steel and engineering sectors.

The shortage of skilled labour meant that production could only be maintained through the employment of non-white workers in semi-skilled and skilled positions (Houghton: 1976, 127). After the war, particularly after the election of a nationalist government in 1948, such gains were quickly eroded by measures such as job-reservation.

By the end of the war, the South African manufacturing establishment had come of age. It was larger, more diversified and had acquired enhanced technical skills and confidence. In addition, prosperity for the agricultural sector derived from the provisioning of vast convoys around the Cape which converted the agricultural problem from one of surplus to one of shortages.

The postwar period has been characterized by rapid growth. In the period 1946-1960 real GDP grew at an average annual rate of 4.6% while in the period 1960 to 1975 it grew at an average annual rate of 5.3% (Knight, 1978: 94). Pent up demand as well as the heavy influx of immigrants and capital gave rise to boom conditions at the end of the war. This process was given further impetus by the discovery of large new goldfields in the Orange Free State and the extension of the original fields on the Rand.

Despite the accession to power of the Nationalist Party in 1948 and its initial attempts at curbing immigration, capital flows continued unabated. Devaluation in 1949 extended the boom and gave the government the opportunity to expand and diversify the country's industrial base. A deliberate policy of import substitution, stimulation of manufacturing exports and local processing of South African raw materials combined to ensure that, by 1951, manufacturing had secured the leading position in the South African economy. Over time, manufacturing's contribution to the GDP has consistently expanded while that of agriculture and mining have declined.

The decade of the 1960's was one of unparalleled prosperity for the white economy. This, despite a shaky beginning due to the events at Sharpeville in 1960 and a massive outflow of capital in its wake.

Swift repressive action by the government restored the confidence of foreign investors in the underlying stability of the South African economy. In addition, stringent controls on imports and overseas capital movements meant that multinational corporations had to choose between significantly expanding their investments in South Africa or abandoning them. They chose the former and by the end of 1961 capital inflows began to expand significantly. It was at this stage that the sources of foreign investment began to diversify. Whereas previously large scale investment had come primarily from Britain and the U.S., they were now joined by the countries of Western Europe and Japan.

Over the decade, the real growth rate of GDP averaged approximately 7% per annum (Houghton: 1976, 215). This was facilitated by the immigration of skilled whites, rapidly expanding food and raw material exports, large scale public sector investment and a reduction of credit restrictions within the economy (Jenkins: 1980, 7; Houghton: 1976, 220). Manufacturing led the way with the physical volume of production growing at an average annual rate of 8.9% and employment growing at 5.3% (Turok and Maxey: 1976, 245).

The next decade was characterized by shortages of skilled labour, persistent inflation, recession in the wake of the OPEC price increases and prolonged and severe social disruption in the form of strikes and civil unrest. In order to deal with the shortage of skilled labour the government allowed more and more non white workers to do jobs which had previously been closed to them albeit at lower rates of pay than the whites. Inflation and increasing black unemployment and poverty led to massive strikes in 1973 and 1974. As a result of these strikes the government was forced to re-evaluate its position with respect to

African labour. Higher wages, improved working conditions and increased disbursements for education and training were the result. Whether or not this will have the effect of stabilizing the economy is still unclear. Strike action has continued and been supplemented by widespread civil unrest. It is the government's response to this situation which will to a large extent determine the future viability of the South African economy as it is currently constituted.

If prosperity had come to white South Africa it certainly had not come to the African homelands. Various commissions of enquiry since the 1930's have recognized the basic problems existing in the homelands. Such problems as insufficient land, overpopulation, overstocking of cattle, poor farming techniques, lack of capital for investment, etc. have become endemic and have resulted in widespread poverty and malnutrition.

The Tomlinson Commission (1955) advocated a crash industrialization programme in the homelands in order to employ sufficient numbers to allow the available farmland to be divided into holdings sufficiently large to be economic. In this way it was hoped that resource use could be rationalized and incomes increased.

The government instead opted for the development of border industries through generous concessions to white enterpreneurs and some investment of its own through the Industrial Development Corporation (Lemon: 1976, 183, 184). This, it was hoped, would generate employment for the homelands while retaining the benefits for the Republic. The positive effects of this programme on the homelands have been minimal (Black: 1976, Bell: 1973 and Leeuwenburg: 1977). Leakages to the white economy including a high propensity to import have contributed to a growing reliance on the white economy.

Lack of development in the homelands is manifested in a steadily regressing agricultural sector, a miniscule manufacturing sector, widespread and severe poverty and extensive reliance on migrant labour. In essence, labour is being exported to pay for growing imports of food which are not reaching a large proportion of the people due to its distribution through the marketplace and the relative absence of cash incomes in the homelands.

It may be reasonably argued that the central government has a vested interest in maintaining the status quo in order to ensure a relatively elastic supply of African labour. The entire prosperity of the economy has been based on the availability of extensive amounts of gold and equally extensive amounts of low cost labour. By the 1970's the entire structure of economic and political control was being called into question. How the government responds to this challenge will, to a large extent, determine the future course of the South African economy.

Nature of the South African Economy

The South African economy is a dual economy. Its duality derives from the division of the Republic into white areas, comprising some 87% of the area and African homelands comprising the balance. Economic development in the sense of rapid growth accompanied by structural change and general prosperity has, by and large, occurred only in the white sector. A fortuitous confluence of political sovereignty, strategic resources and an elastic supply of African labour has meant that the white sector could appropriate for itself the benefits of development while determining the terms on which development could take place in the homelands.

In the homelands, a large proportion of the population is engaged in subsistence agriculture. Another large segment of the population is directly dependent on the white economy for border industry and migrant labour employment. The modern sector of the homeland economy is conspicuos by its relative absence. As a result of low African wages in the white sector and the absence of alternative sources of employment for Africans, the South African economy is characterized by the co-existence of race specific poverty and prosperity.

In the area of economic organization, the South African economy may be characterized as being of the state capitalist type. The central government plays a key role in resource allocation through legislation, investment and ownership. Nowhere is this more evident than in the allocation of African labour. A complex system of labour bureaus, influx central legislation and passes ensures that an area's labour needs are matched with an equivalent labour supply.

The population of South Africa is the fourth largest in Africa behind Nigeria, Ethiopia and Egypt. It thus forms the largest potential market south of the equator, a fact which is reinforced by including the populations of its partners in the Southern African Customs Union. The Republic has thus proven to be fertile ground for foreign investment. For administrative reasons, the country's population has been divided into four groups: Whites, Coloureds, Asians and Africans. Of an estimated total population of 27 million in 1978, whites formed 16%, coloureds 9%, Asians 3% and Africans 72% (Carter and O'Meara: 1978, 137).

As of the last census (1970), the labour force formed some 37% of the population. It was deployed in the following manner: agriculture (28%), mining (9%), manufacturing (19%), commerce (11%), government (9%), transport (4%), other services (11%) (Houghton: 1976, 271). The respective contributions of these sectors to the GDP were: agriculture (8%), mining (10%), manufacturing (31%), trade (15%), transport (9%), government (10%), other services (15%) (Houghton: 1976, 273). Given the age-structure of the population it seems clear that growth in potential entrants to the labour force and growth in population will be greatest among the Africans in the foreseeable future.

There are four large urban concentrations in white South Africa: the Pretoria-Witwatersrand-vereeniging complex, the Durban-Pinetown-Pietermaritzburg urban area, the Cape Peninsula and the Port Elizabeth-Uitenhage urban area. Between them they account for roughly 80% of the industrial production and contain roughly 80% of the urban population (Houghton: 1976, 141).

Agriculture

Commercial agriculture blossomed in the wake of the mining revolution as the demand for food and raw materials grew. At first, African farmers formed an integral part of the commercial sector, but as a result of measures like the Land Act, African agriculture was dealt a blow from which it is yet to recover. As a result of the act and subsequent measures, sharecropping, tenant farming and land holdings by Africans in white areas was made illegal.

In the homelands, lack of land, capital, technology and infrastructure has meant that the agricultural sector has been unable to feed the population. Over time the result has been a regressing agricultural sector and heavy dependence on the white agricultural sector for imports of food. By 1975, for example, the homelands could feed less than one quarter of their populations from domestic sources (Callinicos and Rogers: 1977, 25).

Meanwhile, in the white sector tremendous strides were being made in output. Despite the fact that only a relatively small proportion of the country is suitable for agriculture, and the availability of water is a major constraint, the country is virtually self-sufficient in food production. It is weak only in the production of red meats and high protein plants. In order to rectify the situation the government proposed a "constellation" of Southern African states in which Lesotho would supply the country with water and Botswana with beef in exchange for manufactures (Callinicos and Rogers: 1978, 77).

Most of the gains in the postwar period have been due to large scale mechanization. There was, for example, an eight-fold increase in the number of tractors in use between 1946 and 1971 (Houghton: 1976, 66). In addition, recent expenditures on infrastructure, particularly water projects like the Orange River Project are likely to add substantially to productive capacity in the future.

Over time, there has been a steady drift of whites out of the agricultural sector. Legal curbs on mobility have meant that this process has not been repeated amongst the Africans. Of the economically active African population, 35% are employed in the agricultural sector, most at extremely low wages (Houghton: 1976, 271; Institute of Race Relations: 1978, 207-209).

Paradoxically, at the same time as malnutrition is a major problem in the homelands, agriculture is a major earner of foreign exchange, providing roughly one third by value of the country's non-gold exports

(Houghton: 1976, 176). This situation has been reinforced by the fact that farmers have traditionally been a major element in the government's political base. Through the South African Agricultural Union, they have been able to influence government policy in such a way as to eliminate potential competition from African farmers thus maintaining a margin of scarcity and high prices.

Within the homelands, distribution is through the market, Given the relative absence of cash incomes accruing in the homelands and a regressing subsistence sector large numbers of Africans suffer from malnutrition and other such debilitating diseases (FAO: 1978).

Major products of South Africa's agricultural industry are: maize, sugar cane, deciduos fruits, citrus fruits, wine, wool, dairy products, slaughtered animals and karakul pelts.

Manufacturing

The upward surge in South Africa's manufacturing sector began in earnest in the 1930's and has continued virtually unabated to the present. The combined blessings of vast mineral wealth, an abundant and relatively cheap labour supply as well as favourable government policy have allowed the sector to mushroom to its present position, producing some 40% of total industrial production in Africa (AIP: 1976, 7)*.

Although import substitution was the major thrust of this sector until relatively recently, it is still a net importer. The emphasis now seems to be on the production of capital and consumer goods for

*African International Publishing Co.

export. In general, South African manufacturing suffers from the existence of a relatively small domestic market so that it is unable to realize economies of scale and compete effectively in international markets (Houghton: 1976, 128, 129). In addition, it is constrained by shortages of skilled labour. Consequently, moves have been afoot to increase black wages and employ Africans in more skilled positions.

About 50% of South Africa's manufacturing capacity is located in the Southern Transvaal with most of the balance clustered around the ports. Because the major industrial complex is so deep in the interior, transport costs have been a significant factor for both importers and exporters. Also, the growth of the Southern Transvaal urban-industrial complex has put a strain on the country's water supply. Consequently, the government has been taking action during the last decade to encourage the decentralization of industry primarily through the Physical Planning and Utilization of Resources Act of 1967 and its amendments. Part of the programme of decentralization has been devoted to the development of border industries.

Manufacturing investments within the homelands have been minimal. This has been due to the following factors: numerous obstacles to African capital accumulation, government restrictions on the influx of white capital into the homelands, the lack of an adequate infrastructure and distance from major markets. The latter two factors have gravitated against the influx of foreign capital. Consequently, the contribution of manufacturing to GDP in the homelands has been negligible.

The major branches of South African industry include: metal products and engineering; food, beverages and tobacco; textiles and clothing; chemicals and chemical products. Recently, significant progress has been made in weapons and high technology (e.g. computer, nuclear) production.

Mining

Mining has been the mainstay of the South African economy for over a century. The discovery of diamonds in 1867 and gold in 1886 provided the impetus for much of the country's subsequent prosperity. Today more than sixty different minerals are being mined and South Africa has recently been ranked as one of the top four countries in the world in terms of its non-fuel mineral wealth (Becker: 1978, 2).

Of a total mineral production of R4b in 1974, gold accounted for R2.6b (Houghton: 1976, 102). The pre-eminence of gold production has overshadowed the rapid development of other mining. The value of other mining grew from R44M in 1945 to R1309M in 1974 (Houghton: 1976, 105). This growth can be attributed to the international postwar manufacturing boom.

South Africa is the world's largest producer of gold, gem diamonds, platinum group metals, asbestos, chrome and antimony. It is amongst the world's largest producers of: industrial diamonds, manganese, uranium, vermiculite, vanadium and flourspar. In addition, it has substantial deposits of coal, iron-ore, andalusite, sillimanite, zinc and titanium. South Africa exports roughly 80% of her mineral production (Nelson: 1974, 46).

Many of the above minerals are strategic in the sense that they are indispensable, at least in the short run, to the smooth functioning of the economies of the major western industrial powers. They are thus a strong conditioning factor in the attitudes of these countries to South Africa. Prospects for an expansion in mineral exports look bright. In order to facilitate this process two new ports are being constructed.

The prosperity of the mining sector in the white economy and its contribution to economic development can be contrasted with the situation obtaining in the homelands. Royalties from the limited mining sector in the homelands do not accrue to the homeland governments but to the South African government (Butler: 1977, 15). Thus, a potentially important source of exploration and development capital is removed from the control of the homelands. For some homelands, like Bophutatswana, these royalties are large enough to significantly alter their degree of dependence on the white economy (Butler: 1977, 15).

Foreign Trade and Capital Flows

Foreign trade has always been an important component of economic activity in South Africa. Prior to the advent of the mineral era, the country maintained its links to the international economy through the export of wine, wool and sugar. Since then, diamonds, gold and a host of other agricultural, mineral and to some extent, industrial products have been added to the list.

In 1974, the total reciprocal flow of goods and services between South Africa and the rest of the world amounted to some 38% of the country's GDP (Houghton: 1976, 176, 274, 291). Due to the rapid expansion of the domestic economy, the degree of dependence on foreign trade has been declining over time. Primary products now account for roughly 2/3 of total exports (Houghton: 1976, 176). Of the balance, processed primary products, chemical products and machinery are the most important. Imports, comprise mainly capital goods, raw and intermediate goods and sophisticated consumer goods.

Due to the fact that manufacturing, which is a net user of foreign exchange grew at a much faster rate than agriculture or mining, there has been a negative long term external trade balance averaging some R128M/year in the period 1955 to 1975. This has been more than offset by the inflow of capital which averaged some R235M/year in the same period (Houghton: 1976, 292).

To offset wide fluctuations in net capital flows in the postwar period, the government was obliged to institute import and exchange controls, particularly in the early 1960's when there was a massive flight of capital. In the 1970's the government's role in procuring foreign exchange has expanded considerably to help meet burgeoning expenditures on infrastructure and defence.

There has been a gradual shift in the focus of foreign investment from mining to manufacturing. South Africa's main trading partners are: U.K., U.S., West Germany, Japan and assorted African countries.

Energy

A relatively low cost and abundant supply of coal provides some 80% of South Africa's current energy needs (Nelson: 1974, 43). The majority of this is turned into electricity by the government owned Electricity Supply Commission (ESCOM) which supplies the country's industries and households.

The remaining energy is currently supplied by petroleum, most of which is imported. At present, a small part of oil requirements are supplied by the oil from coal plant (SASOL). A second SASOL plant, currently under construction, should come on stream by 1980. Jointly the two plants are expected to provide ± 1/3 of the country's oil requirements by the 1980's (AFRICA: 91, March, 1979, 45).

In the wake of the Iranian crisis, possible third and fourth SASOL plants are being mooted. The country also has a stockpile of oil for strategic purposes estimated at between an 18 month and 2-year supply (AFRICA: 91, 1979, 45).

Intensive research is also being undertaken to determine the feasibility of using hydrogen, ethanol and methyl in an attempt to reduce dependence on foreign sources of supply.

An abundant supply of uranium along with the appropriate imported technology has made it possible for the government to construct the country's first full-scale nuclear power plant. It is due to come on stream by 1982 and is expected to make the country self-sufficient in enriched nuclear fuel for power generation (S.A. Year Book: 1977, 455).

Substantial and growing exports of coal primarily to Japan and uranium primarily to the U.S. and West Germany have put South Africa in the league of the energy exporters, an enviable position to be in during the energy scarce 1980's.

Public Ownership

As one might expect, the degree of government participation in the South African economy goes well beyond mere direction to active ownership of important segments. The public sector share in gross domestic fixed investment stood at 46% in 1970, up from 35% in 1950 (Houghton: 1976, 207).

Aside from the normal functions of government such as administration, defence and law and order, government ownership is extended into two general areas: infrastructure and manufacturing. The government operates the postal, telegraph and telephone services of the country. Through the South African Broadcasting Corporation it operates all radio and television services.

The central government, in conjunction with the provincial administrative provides almost all primary, secondary and technical education and the universities though ostensibly autonomous rely heavily on the government for subsidies.

The South African Railways and Harbours Board has come to dominate the entire transportation network. Its responsibilities include: administration of South African Airways, Safmarine (merchant shipping), the entire rail network as well as trucking and port development. Predictably, it is the largest employer in the country.

Escom at present supplies over 80% of the electricity used in the country. This figure is expected to reach 98% by the 1990's since all additional demand is being channelled towards it (Houghton: 1976, 204).

The government plays a major role in the storage and supply of water both to industry and for conservation and irrigation purposes.

The state entered the manufacturing industry with the establishment of ISCOR in 1928. Most of the subsequent investment has come through the Industrial Development Corporation established in 1940. It has built up a substantial industrial empire. In addition to various minor concerns it has substantial interests in ten major industrial undertakings.

The government plays an active role in financing and promoting research. In 1968/69, 61% of research and development expenditures were undertaken by the government. Semi-official institutions like universities accounted for 13% and the private sector 26%.(Pautz: 1974, 127). Notable successes of the South African research effort include pioneering mining technology, oil from coal technology and various agricultural techniques.

All of the above combine to give the government significant leverage in carrying out its intentions vis-a-vis the economy.

The Legal Framework

In order to understand the role of the economy within the social system, it is important to be aware of the major socio-political constraints which govern that system. The legal system embodies the values, aspirations and imperatives of those who hold power in a society. It reflects the interests of the dominant section of the ruling class and defines the parameters within which the society operates. In South Africa, the legal system plays a primary role in shaping the social environment. It, thus, mirrors very well the major constraints operating on the economy. Some knowledge of the law and its application is thus indispensable if one is to understand the functioning of the South African economy.

Attempts to define a separate but unequal role for the African have been a major preoccupation of South African legislation in the 20th century. This has led to a byzantine maze of laws and regulations impeding the social, geographic and occupational mobility of black South Africans. It is this subset of legislation which is of prime interest since it places direct constraints on the economy due to its effects on factor mobility, morale and ultimately efficiency.

Examining the social origins of this legislation will give us a valuable insight into the underlying dynamics of the system. Therefore, in what follows, an attempt will be made to catalogue and place in context some of the major laws and regulations currently in force and to assess their net effect on the South African economy.

The modern South African legal system has its origins in the imperatives of British imperialism in the late 19th century. The major goals of British imperialism at this time were the securing of external markets and the acquisition of low cost raw materials for the purpose of developing industry and increasing the economic and political dominance of the British. In pursuit of these aims they acquired territories and attempted to modify prevailing social structures to conform to their requirements. In the case of South Africa, the discovery of gold led the British to take a host of measures to ensure its profitable exploitation. It is in this context that the origins of the legal system must be viewed.

In order to completely establish dominance in South Africa, the British had to deal effectively with the intransigent Afrikaner republics. The Jameson Raid (1895) foreshadowed the Anglo/Boer War (1899-1902) in which the dominance of British Imperialism was firmly established. Once this had been done, the British could ostensibly decolonize on generous terms to the Afrikaners thus ensuring their co-operation while maintaining a neocolonial relationship of sorts to the country due to their complete dominance of the economy. These two groups thus had a joint interest in suppressing the African population. The British for economic reasons and the Afrikaners for political reasons.

The following quotation from Earl Grey sums up the British attitude very well: "The coloured people are generally looked upon by the whites as an inferior race, whose interests ought to be systematically disregarded when they come into competition with their own and should be governed mainly with a view to the advantage of the superior race. For this advantage, two things are considered to be especially necessary: first that facilities should be afforded to the white colonists for obtaining possession of land theretofore occupied by the native tribes, and secondly that the Kaffir population should be made to furnish as large and as cheap a labour supply as possible". (Magubane: 1979, 71).

The mining companies, representatives of British imperialism in South Africa pressed for precisely the kind of legislation implied in the above statement. By virtue of the Land Act of 1913 the country was partitioned into African and white areas. The African areas constituted some 7% of the total land area, were extremely fragmented and contained no major agricultural, mineral or industrial infrastructure. All land was to be communally owned by various African ethnic groups. White enterpreneurs were not allowed to invest in these areas. In addition, government investment was minimal. As a result, capital accumulation was based on subsistence agriculture and a steady impoverishment of the population took place. This provided a reserve pool of labour to support the burgeoning growth in mining, agriculture and industry in the white areas. When in 1936 African landholdings were extended to 13% it was part of a package deal which saw the disenfranchisement of the few but politically significant African voters who had managed to qualify under various statutes for voting privileges in the Cape and

Natal. Over the next few decades these rights were removed from other non-white groups as well so that the eventual outcome was an all white electorate voting for an all-white parliament.

In order to secure a large low cost labour supply, the mining companies pressed for legislation which had the dual purpose of procuring and controlling an African labour supply. Typical of the kind of measures taken in this period was the Glen Grey Act (1894) which established a labour tax on selected African males and forced them to work in order to avoid imprisonment. The Masters and Servants Laws and the Pass Laws were typical control measures used.

Under the Masters and Servants Laws the contractual rights of non-white workers were restricted. In terms of this legislation, breaches of contract as well as insubordination or unruliness by non-white workers was considered a criminal offence carrying a penalty of imprisonment (Johnstone: 1976, 35). In addition, all Africans taking up employment on the goldmines have to enter into long term contracts during which they cannot take up employment elsewhere. These long term contracts guarantee a labour supply for the duration of the contract.

The Pass Laws (already in force) were reinforced to help check desertion and enforce contractual obligations. Among other things, the passes contained information regarding the holder's employment position and permission to be in the area. If a pass was not in order the holder could be prosecuted and endorsed back to the homelands. The Pass system also served to weaken the pre-employment position of Africans by only allowing them a very short period of time within which to find employment. Within 24 hours of entering a particular labour district an African worker had to report to a pass office to obtain a six day pass. If not employed within six days he was liable to fines, imprisonment and ultimately expulsion from the district (Johnstone: 1976, 38). This enabled employees to offer negligible wages knowing that the African workers had to accept them or face harassment and arrest.

Two other notable pieces of legislation introduced during this time were the Native Labour Regulation Act of 1911 which extended this legislation to include foreign Africans employed on the mines and the Mine Works Act of 1911 which limited the granting of certificates of competency to Whites and Coloureds (Horrell: 1971, 7).

In sum then, the major imperative of this period was the need for a large low cost labour supply. In order to do this, the legal system was structured in such a way as to facilitate the concentration of economic power in white hands and to make Africans dependent on the white economy by removing their means of subsistence and thus forcing them to offer their labour to "white South Africa" at below subsistence cost (Magubane: 1979, 71).

The next major spate of legislation came during the period of the PACT government. The PACT government was born out of an alliance between white labour (in the wake of the Rand revolt) and Afrikaner nationalists who were dissatisfied with the Smuts approach to dealing with the "poor white" problem. Their major imperatives were, thus, to allay the fears of white labour concerning job encroachment by Africans and to deal with the "poor white" problem. Legislation enacted during this period laid the groundwork for a racially stratified labour force.

To deal with these problems, the state encouraged the expansion of the industrial sector through protective tarrifs and large scale public investments. Through measures such as the "civilized" labour policy African workers were replaced by white workers at higher rates of pay. In addition, measures such as the Apprenticeship Act of 1922, discriminated against non-white workers by setting standards above and beyond the opportunities available to them for education and technical training. The Industrial Conciliation Act of 1924 established machinery for the settlement of disputes by white workers through negotiation, conciliation and arbitration (Horrell: 1971, 7). In terms of the act, Africans are not recognized as employees. A separate industrial relations system based on trusteeship has thus been designed for them. This system will be discussed in more detail later. Using the kinds of measures discussed above the PACT government was able to meet the needs of both white labour and Afrikaner nationalism at the expense of the African majority.

In the period before the great surge in South Africa's manufacturing capacity almost all the Africans in urban areas were migrant workers with strong ties to the homelands. The almost insatiable demand for labour associated with the development of manufacturing particularly during W.W. II, led to a situation in which, by the end of the war, a permanent African urban workforce had developed with little or no ties to the homelands. In order to forestall what the government viewed as a potentially revolutionary situation, steps were taken to stem, and where possible reverse, the flow of Africans coming to the cities.

Central to the government's efforts at "influx control" are a series of laws known collectively as the pass laws. Under the pass laws, every African over the age of sixteen is required to carry a passbook at all times containing the following information: a photograph, a race identity card, registered number, ethnic classification, official permission to be in the area, current tax receipts, permission from the labour bureau to seek work or be employed in the area, employment record as well as the name, address and signature of the current employer (Davis: 1978, 2).

Failure to produce the passbook on request or irregularities in the passbook can result in immediate arrest, a brief trial and deportation to the homelands. In the decade 1966-1975, some 5.8 million Africans were prosecuted under the pass laws (Savage: 1977, 295). At the time a passbook is issued, fingerprints are taken and by means of a computerized record system, the authorities can monitor and control the movements of the entire African adult population.

Section Ten of the Bantu (urban areas) Consolidation Act lays down conditions under which Africans may reside in "white" urban areas. The only Africans who have some security to remain in an urban area outside the homelands are those who have lived in that area continuously from birth, or have lawfully lived there for fifteen years or worked there continuously for the same employer for ten years. The wives and children of men who qualify for urban residence have no right to live with them unless they qualify independently to be there (Davis: 1978, 67).

Any African entering an urban area and who does not qualify under Section Ten, or have a job, has seventy-two hours to leave that area. Under the provisions of this Act some 2.5 million Africans were forcibly removed to the homelands by 1974 (Davis: 1978, 5).

The Physical Planning and Utilization of Resources Act of 1967 sought to limit the growth of African urban populations in "white South Africa" by requiring firms who wish to increase their African labour force in designated urban areas, to apply for permission to do so. Permission is normally denied if the firm employs more than two Africans for every white employed (Lemon: 1976, 190). In accordance with its policy of decentralization, these firms are given incentives to locate in border area growth points. African workers may then commute to these areas from the homelands.

The Bantu Labour Regulations of 1968 specify that all new labour contracts in urban areas are to be for a maximum of one year after which time employees have to return to their respective homelands and re-apply at government-instituted labour bureaux (Davis: 1978, 11). Through the institution of these labour bureaux the state has been able to consolidate its control over the entire African labour force. Under this system, the mobility of African labour is essentially reduced to zero and the number of Africans in an urban area is essentially equal to the area's labour requirements. Aside from the waste and the demoralizing effect these laws have on the workforce they result in a mass of paperwork for industry. Nevertheless, despite these shortcomings, these laws are part of an overall system which has over the years guaranteed high growth and profit rates.

Because of the terms of the Industrial Conciliation Act, separate machinery has been instituted to deal with industrial disputes and wage determination for Africans. In terms of the Bantu Labour (Settlement of Disputes) Act of 1953, a three tiered system was established to deal with industrial disputes among Africans. Works committees consisting of some three to five members were to be selected from among the African workers at establishments employing twenty or more Africans. However, these committees were given no powers to conduct formal negotiations or bargain. No provision was made for the regular election of these committees, neither are they under any obligation to report back to their constituents (Davis: 1978, 24). A measure of the confidence shown in these committees is that in 1973, some twenty years after the legislation was introduced, there were only 24 works committees out of a potential 21,036 (Davis: 1978, 25).

At the second level, the act provides for Regional Bantu Labour Committees comprising a white chairman and three African members appointed by the Minister of Labour. The function of these committees was to maintain contact with employers within their respective areas and attempt to settle any disputes that may have arisen (Davis: 1978, 24). Black workers have no input into the composition of these committees.

If the Regional Committee could not settle a particular dispute it was to refer the matter to an all-white ministerially appointed Central Labour Board. If the board failed to settle the dispute the Minister of Labour was empowered to ask the Wage Board to investigate the situation (Davis: 1978, 24). Based on the recommendation of the Wage Board, the Minister would then issue an order which would be binding on the employers and employees in that particular industry. In terms of this legislation all refusals to work were totally prohibited.

The failure of the system to incorporate the aspirations of African workers resulted in a total lack of confidence by them in the system. This was graphically illustrated by the wave of strikes which took place during 1973 (361 strikes involving over 90,000 African workers) (Davis: 1978, 25).

Following the wave of unrest commencing in 1973, the government set out to overhaul the system by means of the Bantu Labour Relations Regulation Act of 1973, ammended in 1977. In terms of this act, the works committee system was supplemented by liason committees consisting of an equal number of labour and management representatives. Because African workers were using the platform of works committees to articulate demands, the government and industry encouraged the growth of the liason committees which again were purely advisory bodies (Davis: 1978, 26,27).

In terms of the ammendment, Africans were allowed to be appointed to positions formerly reserved for whites on the Regional Committees and Central Labour Board. The legislation also endowed Africans with the formal right to strike but under such restrictive conditions as to be virtually meaningless (Davis: 1978, 30). In March 1977, the government published an ammendment to the Industrial Conciliation Act giving the Minister of Labour the power to declare any activity an essential service thus enabling him to extend the ban on strikes to encompass all areas of economic life and further circumscribing the rights of African workers (Davis: 1978, 31).

Shortages of skilled labour in the 1970's have been dealt with by techniques such as raising the colour bar, job fragmentation, and border area employment as opposed to integrating the labour force. Flexibility in the application of the law has helped the government to deal with conflicts of interest between various sectors notably agriculture and industry.

The wages of African workers are determined in one of three possible ways: (i) Statutory minima for each grade of worker in an industry may be decreed by the Minister of Labour on the recommendation of the Wage Board; (ii) Wages may also be determined through Industrial Council agreements reached between management and registered unions. By law, African unions cannot be registered and Africans cannot join registered unions; (iii) The previously mentioned Bantu Labour Relations Regulation Act allows any group of employers in any trade, not covered by an industrial council agreement, to submit proposals to the Minister of Labour concerning the wages and conditions of employment in the trade and to request that these proposals be made binding on all employers and workers in a trade (Davis: 1978, 21,22,23).

Most border area and all homeland industry is exempt from minimum wage legislation (Davis: 1978, 19). In general, Africans in South Africa have no say in determining the price of their labour but are bound by provisions of wage determinations made on their behalf. More recently, Africans have had more success in influencing the process through widespread strikes in the face of open and violent police retaliation.

The ascenscion of the Nationalist party in 1948 gave rise to a plethora of discriminatory legislation which had the effect of consolidating and advancing the frontiers of white supremacy in South Africa. The first years of Nationalist Party rule in South Africa were especially crude with ministers openly espousing racist sentiments and cutting budgets for African social services. During this time also, "petty apartheid" was made a legal reality in South Africa through such measures as the Group Areas Act, the Immorality Act and the reservation of separate Amenities Act.

Predictably this led to an outcry both at home and abroad and the government was forced to take action. On the domestic front, it unleashed a draconian set of measures with the aim of stifling dissent and preventing the development of an independent political consciousness among black South Africans. In international forums, like the U.N., the government spoke of reform, hinting at the economic and political development of independent homelands where Africans could develop along their own lines free from white interference. In this way it hoped to deflect some of the more stinging criticisms being levelled against it. The net result for Africans has been an extension and refinement of the system of oppression under which they have been living.

The intent of the government's internal security programme has been the eradication of all non-prescribed opposition to the system. Black political organizations such as the ANC, PAC and more recently black consciousness organizations have all been banned under the Unlawful Organizations Act. Freedoms of speech, assembly and information have been all but obliterated by legislation. Literally thousands of South Africans have been banned, arrested, held incommunicado, tortured or murdered by the regime. An efficient secret police operating outside the framework of the judicial system and potential public scrutiny has, on the whole, been very successful in routing potential threats to the system. African trade unionists have been especially victimized. The result has been an absence of leadership at the economic and political level. The degree of force used by the regime in suppressing strikes and other forms of dissent is symptomatic of a deep seated insecurity within the ranks of the ruling class in South Africa.

Basic security legislation consists of the following: (i) primary security legislation aimed at hardcore anti-government protest. This includes the Suppression of Communism Act and the Terrorism Act. In terms of the former act a communist is broadly interpreted to mean anyone expousing ideas that challenge the basis of South African society. Among those arrested under the act have been priests, teachers, trade unionists and others ranging from liberal to Marxist viewpoints. The Terrorism Act provides for the punishment by death or imprisonment of persons convicted of the crime of terrorism which is constituted "by any act" committed with the "intent to endanger the maintenance of law and order "where the prosecution can prove that the act was likely to "embarass the administration of the affairs of state" (Dugard: 1972, 98). Under this act suspected accomplices can be held indefinitely for the purposes of interogation (Dugard: 1972, 98). According to Jenkins, the political editor of the Economist, this is the most repressive measure formally enacted by any legislature in the world (Jenkins: 1980, 7); (ii) several secondary laws aimed at softcore anti-government protest; (iii) a group of permanent emergency laws which give the government sweeping power to declare a state of emergency in order to deal with any potential threat; (iv) several no trial detention laws and (v) the BOSS law which allows the police to work in secrecy and places them beyond the jurisdiction of the courts (Cook: 1974, 24). Under these laws a wide range of activities permissible in almost all other countries is made illegal in South Africa.

Facilitating the whole process is a near absolute executive power base. All civil and judicial rights are subordinate to parliament which in turn is subordinate to the executive appointed by the Prime Minister. In other words, no South African court can declare the substance of any act to be unconstitutional or invalid for any reason (Jenkins: 1980, 7).

According to Justice Hiemstra "South Africa's prison population is by far the largest in the world: 420 per 100,000 of population compared with 70 in Britain and 25 in Holland" (Turok: 1976, 22). In addition, over the period 1969-77, 522 people were executed, more than half the judicial executions in the entire world.(IRR: 1978, 70).

The net result of all of the above is that opposition to the South African government has been driven towards armed struggle since any other form of effective protest has been made illegal.

The degree of uncertainty inherent in the South African situation bodes ill for investor confidence. The flight of capital following events like Sharpeville, Soweto and the murder of Steve Biko and subsequent difficulties in obtaining long term capital in international markets derive directly from the oppressive nature of South African society.

It is hoped that this brief ambit through the maze of laws making up South Africa's legal code have been of some help in gaining an understanding of some of the structural rigidities present in the South African economy. Curbs, both on mobility and basic freedoms backed up by a high level of coercion have led to inefficiency and alienation within the South African economy. Later sections will go into this question in more detail.

Trade Unionism

In the liberal democracies of Western Europe and North America, trade unions are generally subject only to covert controls. Only if they stray significantly from a focus on business unionism do they become subject to overt controls such as back to work legislation, police interference etc. In the more regressive state - capitalist societies like South Africa, covert controls are replaced by overt controls in the form of highly circumscribed spheres of action backed by coercion. In these societies, antiquated social structures, maintained by coercion, carry within them an inherent revolutionary potential. This is the rationale behind the strict controls placed on popular and thus potentially revolutionary organizations like the trade unions. In South Africa, these controls take a variety of forms ranging from severe legal disabilities to direct violence against the leadership or those on strike.

In South Africa, African trade-unions are not legally recognized, i.e. they do not have the right to negotiate collective agreements with managements. In addition, mixed race trade unions are disallowed so that Africans are left without collective bargaining rights. Nevertheless, African trade-unions do exist but subject to severe restrictions. Because of the general restraints on speech, assembly and mobility union leaders are often jailed under South Africa's security legislation (Davis: 1978, 33). Other obstacles to organization include the migrant labour system and the insecurity of tenure for those involved in union activities (Davis: 1978, 33). Strikes by African workers are generally illegal. The use of force in suppressing strikes has been well documented (e.g. Gaetsewe: 1976, 6-8). Bayonet charges, teargas, police dogs, automatic rifles, machine guns and other forms of intimidation are the means by which most African strikes are terminated.

Despite all these obstacles, African trade unions have in the recent past become a potent force for change in South Africa. Mass strike action in the face of severe intimidation and large scale organization have forced many companies to grant de facto recognition to African unions.

In order to place the present situation in context, a brief sketch of the development of African unions will now be presented.

African trade unions had their origins on the goldmines. The first major strike of African workers was the mineworkers strike of 1913. The course of events during that strike provided a prophetic example of what was in store for African workers who challenged the system. Earlier in the same year, the white mine workers had come out on strike. They requested and received the support of the African workers. However, when it came time to reciprocate the white mine-workers refused. The African workers were driven back to work with guns, clubs and dogs. Their leaders were imprisoned and their wages were reduced (Simmons, R.E. and H.J.: 1969, 160).

In 1918, the ICU, under the charismatic leadership of Clements Kadolie, was established. Its initial successes, particularly in the Durban dockworker's strike of 1919 made it a very popular organization so that at its peak in 1928 it had a membership of some 200,000 (Davis: 1978, 31). As a mass-based organization it was in a good position to flex its muscles on behalf of the African labour force. However, inexperience resulting in organizational difficulties and political problems brought its efforts to an end by 1930.

Nevertheless, despite many obstacles, African trade unions continued to exist and the leadership was able to build on the experiences of their predecessors. As a result of the tremendous growth in the African labour force during the war, the Council of Non-European Trade Unions was able to claim 119 affiliates with 158,000 members by the end of the war (Davis: 1978, 31). The growing self confidence of African labour was expressed in a strike by the African Mineworkers Union in 1946 which saw 76,000 miners out on strike for better wages and working conditions. This trend was quashed with the election of the Nationalist Party in 1948. Despite the advice of the Industrial Legislation Commission (1951) the government still refused to recognize African unions and instead implemented other dispute settlement procedures such as the Bantu Labour (Settlement of Disputes) Act which was mentioned earlier (Hepple: 1967, 62).

A wave of repressive legislation backed by force during the decade of the 1960's saw the virtual decimation of the African trade-union movement. By 1969, for example, the number of African unions in existence had dwindled to thirteen with a total membership of 16,040 (Davis: 1978, 31).

One of the African trade-unions that was outlawed was SACTU, the only genuine multiracial union at the time. SACTU's philosophy, laid out at its first Annual Congress in 1956, is of the utmost importance in understanding the present mood in the country. "SACTU is conscious of the fact that the organizing of the mass of the workers for higher wages, better conditions of life and labour is inextricably bound up with a determined struggle for political rights and liberation from all oppressive laws and practices. It follows that a mere struggle for the economic rights of the worker without participation in the general struggle for political emancipation would condemn the trade-union movement to uselessness and to a betrayal of the interests of the workers"(Gaetsewe: 1976, 9).

It is this philosophy, which the government has tried so hard to suppress which now in combination with "Black Consciousness" is providing the clarion call for African labour and youth and which it may be reasonably argued will prove the government's undoing.

The mass strikes of 1973 heralded a resurgence of the African trade union movement. By 1979 there were 30 unions with 85,000 members (Jenkins (Soweto): 1980, 7). Even before the strikes a start had been made with the establishment of the Urban Training Project in 1970. The aim of the UTP was to establish an educational body to publicize the existing rights of Africans under the law and assist those workers wishing to form unions (SALB: May 79, 5).

Soon after this, TUCSA decided to promote the formation of parallel unions for African workers and to accept affiliations from these unregistered unions (SALB: May 1979, 9). In October 1973, the TUACC was formed in an effort to co-ordinate the large number of new unions established in the aftermath of the strikes. This trend culminated with the formation of FOSATU in April 1979 (SALB: May 1979, 5-24). Fosatu was the first federation of predominantly unregistered trade-unions to emerge since the suppression of SACTU and the dissolution of FOFATUSA in the decade of the 1960's. The African trade union movement is now in a similar but stronger position than in the immediate postwar period.

Developments, both at home and abroad have put added pressure on the government to recognize the unions. Mass campaigns by anti-apartheid groups in the west have led to a great deal of publicity about the wages and working conditions of South African workers. Consequently, South Africa's allies have been forced to put pressure on the regime to at least moderate its stance. Decolonization in the Southern

African region has had a "demonstration effect" on the domestic population. This has fed into a continuing wave of strikes and unrest which have beset the economy since SOWETO. Given all these pressures the government gave the appearance of at least considering the possibility of a more liberal policy towards the African labour force including recognition of African unions.

The establishment of the Riekert commission to investigate the better utilization of labour and the Wiehahn commission to investigate the industrial relations system for Africans was widely heralded as a sign of good faith by the government.

The Riekert commission estimated that 25 laws needed to be mastered by anyone employing African labour and that over 2000 laws and formal regulations covered the field of influx control (Jenkins: 1980, 7). During the past decade over five million Africans have been arrested under those laws (Jenkins: 1980, 7). The commission found that white employers were fed up with having their staff regularly reduced by the police while black employees were resentful of the difficulties involved in living peacefully with their families and doing an honest job.

The commission proposed a strengthening of influx control through making the criteria for urban residence (discussed earlier) the availability of a house and suitable employment. This would decentralize influx control to housing officials. In addition, the employment criterion would make a threat of dismissal a threat of deportation to the homelands. It further proposed that employers be discouraged from using migrant labourers to depress the wages of the stabilized labour force and that the onus for obeying influx control be shifted to the employer from the worker. In this way some of the rigidity could be removed from the present situation and the labour force given a stake in the future development of the economy.

The government rejected the commission's proposals on the decentralization of influx control, on ending the 72 hour pass curfew and permitting greater labour mobility even within the proposed constraints on housing and employment. It implemented tighter controls on migrant labour and punishment of employers for registration offences. It concurred with the commission in the conclusion that to permit full freedom of movement for Blacks would saddle South Africa with undesirable external diseconomies.

The Wiehahn commission recommended that Black trade unions be accepted but with adequate safeguards to prevent them from being used for political purposes. According to the commission it was dangerous to leave Black trade unions outside the institutional framework where they would be less subject to control and more subject to foreign influence. It recommended that Black unions be registered and given equal status with white unions. Registration, should however, be subject to government control with unregistered unions disallowed.

This recommendation has led to a debate within the Black trade union movement between those who feel that registration is necessary to protect the status they have gained and those who feel that registration will mean a further loss of liberty.

The government for its part has proposed that it might recognize trade unions of non-migrant labour only. It has done little to implement that proposal let alone broaden it to encompass all urban African workers. The result has been continuing industrial unrest with a steadily growing political component.

The cautious nature of the reforms mooted by the South African government reflects its concern that it might be opening a can of worms by even considering the possibility of trade union rights for Africans. The government fears that among other things it might be facing a revolution of rising expectations both from the African labour force and its allies in the international arena. The 1973 strikes and SOWETO clearly represent a loss of control by the regime. The restoration of law and order and some degree of control over the labour force was essential in maintaining the regime's credibility. In addition, a significant segment of white society is strongly opposed to granting Africans any kinds of rights let alone trade-union rights which they feel would give them a good platform for attacking the system of apartheid.

The regime is thus unlikely to grant any changes that would jeopardize its control over the labour force and alienate important segments of white South African opinion. However, the forces of change are blowing strong in South Africa and are not likely to be easily deflected with the result that a showdown appears inevitable.

Investments in Human Capital

Investments in human capital yield returns to society in the form of higher productivity and income. Since governments are the major investors in human capital, the distribution of those investments and their returns among different population groups reflect the government's priorities in shaping the social formation. In the South African case these priorities reflect the government's policy of apartheid.

Different ethnic groups are treated independently at a level conforming with their position in the political economy. Investments in human capital have thus been heavily skewed towards the whites with the Africans being relegated to what amounts to fourth class status. These investments thus have the effect of preparing the different racial groups for different roles within the society.

In what follows, some attempt will be made to outline and analyze the major features of the educational and health care systems for Africans in order to demonstrate how they fit into the overall scheme of things in South Africa.

The Educational System

Prior to the Bantu Education Act of 1953, African education was the prerogative of a widely decentralized system of private, mission and tribal schools. The mission schools believed that they were educating Africans for participation in a common unified society and thus aimed at producing Africans who were culturally homogeneous in white society (Clark: 1971, 216).

The ascension of Afrikaner nationalists and their subsequent moves at consolidating white supremacy led to a different perspective on the role of African education. As Verwoerd, one of the primary architects of apartheid, put it: "There is no place for him in European society above the level of certain forms of labour ... until now he has been subjected to a school system which drew him away from his own community and misled him by showing him the green pastures of European society in which he was not allowed to graze" (Adam: 1971, 201). This philosophy gave rise to a highly centralized and extremely paternalistic system of education for the Africans known as Bantu education.

A major characteristic of Bantu education is its emphasis on ethnic particularism. Students from different African ethnic groups are segregated in schools and universities and are instilled with a narrow nationalism focusing on the ethnic group rather than the African people as a whole. This fits in with the government's homelands policy and allows it to localize problems and exploits differences between groups for its own ends.

Another characteristic of Bantu education is chronic underfunding which has had a marked effect on the quality of education and severely reduced the opportunities for Africans to acquire the skills necessary for progressing in an industrial society. The fact that education is not compulsory for Africans means that a large proportion of school age children never go to school. Unesco, for example, estimated that in 1960, 59% of Black South Africans over the age of 15 were illiterate. In addition, 50% of Blacks over the age of twenty-five had never gone to school (UNESCO: 1978, 44,53). Those who do attend have to contend with overcrowding, inadequate equipment, poorly qualified teachers and high costs. In 1978, for example, the pupil teacher ratio in white schools was 1:19.7 compared with 1:49.2 for African schools and 1:30 for Africa as a whole (IRR: 1978, 399; UNESCO: 1977, 91).

The direct costs for Africans going to school include school fees, books, uniforms and "voluntary contributions". In the context of widespread African poverty these costs act as rigorous economic selectors ensuring that only a small proportion of students stay in school long enough to achieve basic literacy. Almost 50% of African children leave school by Standard Two (second year primary) and only

4% reach Form One (first year secondary) (Ainslie: 1978, 8).

The African school system depends to a large extent on the African community as a whole for financing. In 1955/1956 the government decided to freeze its expenditures on African education at the then current level (UNESCO: 1972, 40). To meet the costs of an expanding system the basic general tax was nearly doubled and women were for the first time made liable for this tax. Government regulations also require schools to hold bazaars, concerts, etc. to raise school funds. Furthermore, when schools are erected in urban African townships, the costs are included in the loans for the housing schemes and have to be repaid by the tenants as part of their rents. In this way, the government's direct contribution to African education can be reduced significantly.

The above situation can be contrasted with that obtaining in white schools. Schools for white students are free, attendance is compulsory, teachers are well trained and facilities are modern and spacious. Average expenditures on white education for the 1976/77 school year was R654 per student whereas for Africans it was R48.55 (IRR: 1978, 399).

Technical training was at first considered to be irrelevant to the needs of Africans since they were generally viewed as undifferentiated units of unskilled labour. The result was that the number of Africans enrolled in technical training was far below that recommended by the EISELEN commission (on whose recommendations the Bantu Education Act of 1953 was based) and far below the number that could have been employed in industry (UNESCO: 1972, 75-78).

The realization in the 1960's and 1970's that chronic shortages of skilled labour could only be alleviated by the training of African workers on a large scale to become semi-skilled and skilled workers and that this was essential for the perpetuation of the system caused a dramatic change in the government's attitude towards training. Africans. Schemes for the technical training of Africans have been proliferating over the last decade, particularly since the government's attempts at encouraging white immigration have met with little success.

The Extension of Universities Act of 1959 provided for the establishment of separate universities for Africans. It took the control of African university education away from the more liberal English institutions and gave the government the chance to shape African higher education along lines conforming to the basic premises of apartheid while serving a useful propaganda function.

African university education is very highly controlled by the state. A host of regulations prevent what one might consider to be normal debate or intercourse within and between universities. There is an implicit anti-intellectual bias in favour of practical projects and social work. Censorship ensures that discussion will be limited to areas of no threat to the government (Adam: 1971, 204). The institutions are often closed and students expelled in the wake of any political demonstration. As Adam puts it "the system stimulates questioning yet renders the articulation of those questions dangerous" (Adam: 207).

By 1978, a quarter of a century after the introduction of Bantu Education, a large number of schools stood empty, a testament to the failure of the system. In Soweto, no secondary and about one third of primary school students wrote their exams in 1977 (Rebusoajoang: 1979, 228). Also in 1977 about 600 of Soweto's 700 teachers resigned in protest aginst the inherent paternalism of Bantu education (IRR: 1978, 406).

By 1978, also, tentative moves were underway to overhaul and streamline the educational system for Africans. New legislation was introduced replacing the 1953 statute allowing for greater consultation between the African community and the education department. This legislation, however, sidestepped a number of crucial issues raised by various community interest groups. Among these issues are: (i) the continued committment of the government to separate education on the basis of race; (ii) the absence of any committment to equalization of expenditures on black and white students; (iii) the desire to close the salary gap between black and white teachers; (iv) the inefficiency of retaining school fees while gradually phasing in compulsory education (IRR: 1978, 402). Whether or not the legislation will restore some normalcy to African education in the longer term remains to be seen. However, if the events of the last two years are any indication the prospects are bleak.

The educational system by cultivating wants and needs in the African people and then being unable to meet them through opportunities for economic and social mobility has created dangerous antagonisms in South African society. The government's response has been half hearted at best and this has allowed the situation to deteriorate to its present point.

Health Care

As indicated earlier, investments in human capital can help overcome some of the characteristics of the labour force that act as impediments to greater productivity. At the most basic level, access to sufficient food of proper quality is an essential first step in ensuring level of health consistent with the needs of a growing economy. It is one of the enduring shortcomings of capitalism in general and as practiced in South Africa in particular that some may starve while others have food to sell.

In South Africa, in 1976, for example, food sufficient to provide 112% of the maximum daily energy requirements of the entire population was produced (FAO: 1978, 38). At the same time exports of food items increased from R987M in 1970 to R2794 in 1975 (FAO: 1978, 38). However, insufficient access to food production, either directly or through the market ensures that the majority of the African population lives permanently in the shadow of malnutrition.

Malnutrition is a general term covering a range of diseases all having their origin in an inadequate or improper diet. In South Africa between 15,000 and 30,000 die annually from malnutrition (FAO: 1978, 35). This figure excludes those who die from related diseases like tuberculosis. In the rural areas, children dying from malnutrition make up the bulk of the (300-500) children in every thousand who die before reaching adulthood (FAO: 1978, 35).

Among the whites the infant mortality rate is 12/1000 live births which compares favourably with that in the major western industrial countries whereas for blacks the equivalent figure is in the region of 94/1000 (IRR: 1978, 478). In the homelands the equivalent figure is

140/1000 (Butler: 1977, 132). For blacks, the major factor in infant mortality is infection. Malnutrition, which retards the body's ability to produce white blood cells increases tremendously the body's susceptibility to infection.

Simply put, the question then becomes, given that there is a surplus of food produced in South Africa and given that malnutrition is a major problem, why have the authorities not chanelled some of that surplus production to areas where it is needed. Simply put, the answer is, because they can get a better price elsewhere. Maintenance of human capital is no priority when there is a perceived excess of it in the system. It does not pay to have a well fed, educated mass of people when there is no room for including them in the benefits of development. Such is the rationale of profit maximization when carried to its logical conclusion in South Africa.

Deprived of access to land and in receipt of low incomes, Africans are simply unable to obtain proper nutrition. In May 1976, for example, the PDL for an African family of five in Soweto was estimated at R129.05 a month. Meanwhile, the average African household was estimated to have an income of $73 (Callinicos and Rogers: 1978, 159). Food costs in the previous year had risen by some 30% (Callinicos and Rogers: 1978, 159). This situation was partially due to the reduction of government subsidies on dairy products, bread and maize (IRR: 1978, 157). As one might expect the situation is even more desperate in the homelands where cash incomes are low, the subsistence sector is regressing and food costs are higher due to transportation costs.

The operation of marketing control boards, while ensuring the orderly marketing of agricultural produce and guaranteeing white farmers a good return for their efforts by encouraging exports and sometimes more dubious methods (like pumping milk into the sea or burning grain) have acted against the interests of the black majority who live below the PDL. As important elements in the constituency of the Nationalist Party, the white farmers are able to exert strong pressure on the government to prevent measures which would have the effect of depressing agricultural prices.

The short term implications of malnutrition in South Africa are that the black population is unable to function in a manner conducive to its own growth and development and that the labour resources of the country are being wasted. The long term implications are potentially more serious and include the possibility of genetic damage.

The internal logic of the profit-maximizing system introduced by the mining companies does not require a high level of health in the general population. As long as there were adequate supplies of labour, whatever their origin, there was no need to consider the welfare of individuals. In other words, investments in human capital were considered a very low priority.

The changing imperatives of profit maximization, i.e. more skills, higher levels of general health, etc. has led to pressure for greater emphasis on such investments. This is reflected to some extent in the extension of education available to blacks and in a change of focus to primary health care for blacks (IRR: 1978, 466). In addition, the formation of the Southern African Health Organization for the pooling of medical information and services extends this concern to the entire labour catchment area (IRR: 1978, 467).

Income Inequality and Poverty in South Africa

Inequality of income distribution is a general feature of the growth and development of capitalist economics. Over time, differential access to land, capital and skills results in a concentration of these income producing assets in the hands of fewer and fewer people. A dichotomy thus tends to develop between those who own the means of production and those dependent on wage labour for their income.

In the case of South Africa this tendency is exagerated by the imposition of the system of apartheid which allows for the "super exploitation" of the majority of the country's labour force. Specific aspects of apartheid deny blacks land tenure, free mobility and appropriate educational and employment opportunities. The net result has been that a significant proportion of the African labour force is living in extreme poverty.

At the general level, whites who form some 17% of the population receive some 68% of the country's income (Nattras: 1977, 408). Even within the white community there is a marked discrepancy in income between the owners of capital and the labour force. Horner, for example, estimates that some 2% of the white community is living in poverty (Lever: 1977, 220). However, an alliance between white labour and capital is what allows for the "super exploitation" of black labour and the generation of high profit levels within South Africa. For our purposes then we will concentrate on the white/black income spread in South Africa.

There are several levels at which this inequality is manifested. Whites and blacks doing the same work receive differential rewards. A good example of this is the wage structure in the country's non-white universities where white professors receive far more in wages and fringe benefits than do their colleagues of colour. (Ngcobo: 1976, 79,80). Another gap exists between white and black wage income as a whole. This is clearly illustrated in Table 2-1. From Table 2-1 we can see that while the gap between white and black incomes is large there has been some narrowing in recent years.

A further gap exists between the income blacks receive and that necessary for the avoidance of poverty. In recent years, the poverty datum (PDL) line and the minimum effective level (MEL) have become the focus on extensive study within South Africa. The PDL is generally understood to be a bare subsistence level of income just sufficient to cover essentials like shelter, food and clothing. The MEL is computed as 150% of the PDL and is understood to represent a standard of living just adequate to cover expenses necessary to the welfare of the recipients. Table 2-2 gives us some conception of the problem being faced. It compares (in rands) the minimum monthly rates which the wage board recommended in 1973 for adult male labourers in South Africa's major urban centres with certain contemporary monthly PDL and MEL estimates for an average hypothetical family of between five and six people.

Of course, actual wages paid are generally, far in excess of the minima laid down by the wage board. A survey which analyzed 53,000 salaries in over 170 companies between August 1973 and March 1974, revealed that unskilled workers earned an average of R70/month (Ngcobo: 1976, 86). Black wages have risen substantially in the last few years, but recent research would tend to suggest that costs have increased more rapidly in the African township than elsewhere (Ngcobo: 1976, 86). As Ngcobo points out, it thus seems reasonable to conclude

TABLE 2-1. Relative Wage Data for the South African Economy.

Category	Year	Average White earnings/annum	Average African earnings/annum	Ratio of White to African earnings	Absolute gap in earnings/annum
Mining and quarrying	1965	R2909	R 176	16.5:1	R2733
	1970	R4253	R 216	19.7:1	R2037
	1975	R7793	R 957	8.1:1	R6836
	1977 (Feb)	R8927	R1093	8.2:1	R7834
Manufacturing	1965	R2695	R 508	5.3:1	R2187
	1970	R3817	R 660	5.8:1	R3157
	1975	R5881	R1219	4.8:1	R4662
	1976 (Nov)	R7088	R1638	4.3:1	R5450
Construction	1965	R2982	R 541	5.5:1	R2441
	1970	R4063	R 639	6.4:1	R3424
	1975	R5863	R1168	5.0:1	R4695
	1976	R7036	R1380	5.1:1	R5656
Central government	1965	R1978	R 453	4.4:1	R1525
	1970	R3337	R 566	5.9:1	R2771
	1975	R5288	R1328	3.9:1	R3910
	1977 (Feb)	R5278	R1679	3.1:1	R3599

(Source: Davis: 1978, 20).

TABLE 2-2. Wage Board Determinations Compared to PDL and MEL for Major Urban Centres in South Africa 1973.

Area	WB	PDL	MEL	Source
Cape Town	14.50	92.49	138.74	SAIRR
		81.80	122.70	UPE
Port Elizabeth	13.00	78.58	117.87	UPE
East London	10.00	71.63	107.45	UPE
Durban	13.00	95.26	142.89	UNtl
		78.13	117.20	UPE
Johannesburg	13.00	81.58	122.37	JCC
		74.68	112.02	UPE
Pretoria	13.00	75.44	113.16	UPE
Bloemfontein	12.00	74.55	111.83	UPE
Kimberley	12.00	93.93	140.90	GWU
		78.48	111.72	UPE

SAIRR - South African Institute of Race Relations.
UPE - Institute for Planning and Research, University of Port Elizabeth.
UNtl - Department of Economics, University of Natal.
JCC - Johannesburg Chamber of Commerce.
GWU - Garment Workers Union of South Africa.

(Source: Ngcobo: 1976, 85)

that black urban incomes often do not measure up to the PDL let alone the MEL (Ngcobo: 1976, 86).

If one were to examine the rural areas in general and the homelands in particular, one would find the situation to be much worse. The agricultural census of 1976 gave the following combined (cash and kind) incomes for agricultural workers: 1974 R29.39, 1975 R34.63, 1976 R41.00. These wages are for regular employees. Domestic employees and casual employees received wages equivalent to 40% and 25% of those wages respectively (IRR: 1978, 207).

With respect to the homelands, the report of the Fagan commission, published in 1948, had the following to say: "nearly 30% of families are landless in spite of the fact that the average unit of land is sub-economic and that at least 20% of arable land is not suitable for cultivation, and ... over 60% of families own five or less cattle, including 29% who own none, in spite of the fact that the reserves are carrying double the number of stock that should be run if deterioration is not to take place (Ngcobo: 1976, 87).

Professor Stadtler estimated that for the period 1946/47 to 1966/67 the production of maize, grain and sorghum and the number of livestock which are the prime sources of African rural income, remained practically unchanged in the homelands (Ngcobo: 1976, 87). According to a study by Maree and De Vos, published in 1975, 91% of the families in the Ciskei and 85% in the Transkei were living below the PDL (Lever: 197 , 220). If one were to look at the MEL one would likely to find the figures to be close to the 100% mark. Also, according to the same study, it appears as though the problem has been and is getting worse over time.

Our attention has essentially been focussed on the employed. Were one to compare unemployment among the races we would come up with the following kind of scenario. White, coloured and asian unemployment is essentially limited to frictional unemployment (some 0.5% in 1975) whereas black unemployment has been growing apace. The implications of this for the relative deprivation of Africans is quite clear. Africans have difficulty in escaping poverty even if they are employed.

In general, the above situation is due to the fact that whites control economic and political power in the country and are able to manipulate these variables in such a way as to maximize their own benefits at the expense of Africans.

CHAPTER III

THE SOUTH AFRICAN GOLDMINING INDUSTRY

Introduction

The preceding chapter provided some background information on the South African social system. In this chapter, the focus is narrowed to the goldmining industry so that we may see how the industry fits into that system and ultimately determine the implications of that fit for black wages. To accomplish this the chapter is divided into the following sections: the role of gold in the South African economy, the organization of the industry, on the job training in the goldmines, wages and working conditions in the goldmines and the impact of industrial unrest. The following chapter will draw together the implications of this and the preceding chapter for black wages in the goldmines.

The Role of Gold in the South African Economy

Throughout the preceding text, allusions were made to the central role of gold in the South African economy. I shall now attempt to summarize the major aspects of the relationship between gold and the growth and development of the South African economy.

Ever since 1886, the goldmining industry has been the driving force behind South Africa's economic expansion. The characteristic of goldmining on the Rand which makes it so dynamic is that it is simultaneously capital, labour and export intensive (Horwitz: 1967, 212-216). Deep level mining requires heavy capital investment, technical skills and interpreneurial ability if it is to be profitable. The discovery of gold gave rise to a flood of capital and in its wake, technicians and enterpreneurs. Initially, all the capital equipment for the mines was imported. Gradually, however, first through local enterpreneurship but more importantly through import-substitution programmes and heavy government investment in the industrial sector, most of the physical capital could be obtained locally. The growth of the industry provided a market for the output of the iron, steel and engineering sectors. Protection ensured that local interests could secure the market.

Due to the cost structure of the industry, profits could only be maximized through maximizing output (See next section). This was achieved by maximizing the size of the unskilled labour force. By 1899, for example, there were already 97,000 men employed on the mines (Horwitz: 1967, 215). In the 1970's this figure topped the 400,000 mark. The growth of urban centres in South Africa is in large part a result of the development of the goldmining industry. These urban centres provided a natural market for a variety of goods from food, clothing and shelter to more sophisticated consumer goods. Again, most of these items were initially imported but they gradually came to be supplied locally. This gave rise to the general pattern of rural/urban migration as agriculture became commercialized and the industrial sector grew. These linkage effects were strong enough to bring about the eventual union of the four provinces of South Africa to provide a common market of some six million people.

Almost the entire production of South African gold is exported. Nevertheless, gold as an export commodity, has until relatively recently, been free from the fluctuations in price, common to most primary commodities. It has thus had a stabilizing effect on the South African economy.

During the great depression, when prices and the level of employment were falling in the other sectors, the goldmining industry was able to expand and cushion the effect of the depression on South Africa. The recent unpegging of the price of gold and its sharp upward trend have brought additional prosperity to the industry, its workers and the South African economy.

The goldmining industry has always been the major source of foreign exchange for the economy. In 1974, for example, it still provided some 44% by value of total exports (Houghton: 1976, 112). It has thus provided the where with all for imports of needed goods for industrial expansion, consumer markets and government use.

Due to the crude nature of transportation at the turn of the century, (ox wagons were the primary mode), the goldmining industry provided the raison d'etre for a sophisticated infrastructure which benefitted the whole country. Development of a railway network, roads, harbours and a merchant marine owe their existence to the discovery and development of South Africa's gold resources. Differential freight rates at the expense of the goldmining industry gave incentive to the agricultural sector (Houghton: 1976, 114).

Gold is also an important source of revenue for the government. In addition to taxation, the government takes a share of the profits through leasing arrangements with the mines. In 1974, for example, of a total working revenue of some R2.552b, the government received R812.63M or approximately one-third. In more recent years, the proportion of revenue going to the state has increased. This has given the state great latitude in developing a diversified economic base and in fulfilling its mandate of apartheid.

Approximately 80% of the goldmining stock is now owned within South Africa (Houghton: 1976, 45). In addition, there seems to be a gradual shift towards employing more South African (as opposed to foreign) workers at higher wages. The net result is a reduction in the leakages from the South African income stream.

Of paramount importance in understanding the role of gold in the South African economy is the sheer magnitude of the industry and thus the magnitude of the linkages to the rest of the economy. The Orange Free State goldmines discovered in the immediate postwar era were even larger than the original discoveries on the Rand and led to another huge influx of capital, skills and technology. It is this scale of resources combined with an elastic supply of black labour and the judicious exploitation of the two which has given rise to the general prosperity enjoyed in white South Africa.

The Organization of the Goldmining Industry

Cost Structure

Generally speaking, for any firm, the level of costs is dependent on the specific conditions existing in the environment in which the firm operates. In the case of the South African goldmining industry these conditions included a relatively low grade of ore, an insatiable demand for gold at a fixed price and a high level of development and overhead costs.

The low grade of ore (about half the international average; Johnstone: 1976, 17,18) meant that, in order to produce a certain amount of gold, the industry had to mine on average about twice as much ore as its competitors in the international arena. This gave the industry a built-in bias towards an above average scale of production.

The demand conditions for gold meant that the industry was extremely sensitive to cost inflation. On the other hand, it meant that the industry was not subject to crises of overproduction. Output could, subject to the availability of factor inputs, be maximized indefinitely without jeopardizing profits.

The high level of development and overhead costs was largely due to the depths at which the ore was found and the unevenness of the ore-bodies (Wilson: 1972, 15). In order for the industry to be profitable the minimum scale of production had to be quite large. Thus, capital costs for the industry were very high.

These specific conditions meant that, in order to maximize profits and ensure that investment continued, output had to be maximized and cost increases effectively controlled.

In order for output to be maximized, the size of the unskilled labour force had to be maximized. This was because, under prevailing social conditions in South Africa, it was cheaper to try and maximize the size of the unskilled labour force than it was to increase even further the demand for relatively scarce capital (Johnstone: 1976, 20). In addition, the mines were not very amenable to labour saving devices in the early going due to technological difficulties associated with deep level mining. In the postwar period a much greater emphasis has been placed on research and there appears to be somewhat of a shift of emphasis towards more capital-intensive methods (Knight: 1977, 138).

Of the various costs incurred by the companies, those for stores, capital equipment and white labour were the most difficult to control. Stores and capital costs were difficult to control because the industry was a pricetaker in those markets. White labour costs were difficult to control because of the powerful position of the white mining unions within the political economy. Thus, it fell on black workers to bear the brunt of the cost minimization and control policies of the mining companies. These took the form of ultra low wages and sub-human living and working conditions on the mines.

This cost structure gave rise to the particular organizational structure adopted by the industry. Understanding the structure of the goldmining industry is of the utmost importance if one is to understand the mechanisms whereby black wages are effectively minimized. In what follows, the structure of the industry will be discussed under the following headings: (i) the degree of centralization, (ii) methods of recruitment and (iii) the compound system.

The Degree of Centralization

The most remarkable feature of the South African goldmining industry is its high level of concentration. This is necessitated in part by the high minimum profitable scale of production and in part by the need to minimize costs by avoiding duplication and removing competition for scarce resources.

The structure of the goldmining industry can be likened to that of a pyramid. At the base are some 46 mining companies. At the middle are seven finance houses each of which controls several mines. At the apex is the Chamber of Mines. Effective power is centred in the finance houses who jointly control the Chamber of Mines for the benefit of the industry as a whole.

Within the overall structure there is even more concentration. In 1969, for example, the five largest mines accounted for more than half the working profits of the entire industry (Wilson: 1972, 23).

In 1975, the average goldmining company employed roughly 9,200 people and milled roughly 1-6 million tons of ore (State of South Africa, Da Gama Publications: 1977, 65-71). This large size enables considerable economics of scale in terms of training labour and buying supplies. However, more important economies derive from the greater concentration afforded by the group system. Under the group system, the individual mining companies exist as separate corporate entities purchasing services from the financial houses in the form of consulting engineers, research laboratories, bulk buying, legal advice, secretarial services and finance (Wilson: 1972, 22,23).

The great success of the industry in tapping the capital markets of the world (some R120M out of R148M invested in the first fifty years came from foreign sources; Collinicos and Rogers: 1977, 16) owes a lot to the group system which spreads and thus minimizes the risks of investment.

Further evidence of the cohesion of the industry is provided by the fact that one of the finance houses, the Anglo-American Corporation, owns approximately sixty percent of the assets of the entire industry (Wilson: 1972, 26). In addition, strong links between the companies in the form of interlocking directorships and cross ownership works to ensure that common strategies are developed towards solving major problems (Wilson: 1972, 26,27). The net result has been to remove competition from the industry, particularly with respect to technology and labour.

It should be stressed at this point that while gold is the primary focus of all the finance houses, they also have substantial investments in other sectors of the economy and abroad.

The Chamber of Mines represents the finance houses at the industry level. The primary mandate of the Chamber is to deal with matters concerning labour. It is through the Chamber that all black labour for the mines is hired. It is also responsible for setting black wage rates and ensuring that they are adhered to by all the groups. In this way, competition for a potentially scarce resource is avoided. In addition, white workers must bargain with the Chamber which is also responsible for training them.

The administration of the Chamber of Mines is undertaken by two committees: the executive committee and the gold producers committee. The former is responsible for the day to day activities of the Chamber, while the latter is responsible for matters pertaining specifically to goldmining. The gold producers committee is composed of the seven representatives of the mining houses (Wilson: 1972, 28).

The implications of the above for black wages are quite clear. A large, well co-ordinated industry with strong legislative support can easily ride roughshod over the fortunes of a group of workers lacking cohesion and even the most elementary of rights. The result has been wages below the subsistence level and continued hardships for African workers. A further implication of the above is that it is only through collective action that meaningful change can come about. This is supported by the historical evidence.

Methods of Recruitment

As noted earlier, labour for the South African goldmines is recruited along monopsonistic lines by the Chamber of Mines. The primary rationale for this behaviour is to minimize the cost of black labour. The general strategy employed by the Chamber has been twofold. In the first instance, by recruiting in those territories adjacent to South Africa it has sought to increase the supply of labour and thus remove upward pressure on the wage rate. In the second instance, it has successfully sought legislative measures to facilitate recruiting within the country.

Until recently, the great majority of African workers came from the territories surrounding South Africa. As late as 1974 only 22% of the African workers came from within South Africa.(Institute of Race Relations: 1978, 211). Foreign workers are recruited by the Witwatersrand Native Labour Association (WINELA) which was established expressly for this purpose in 1900. Table 3-1 indicates the origins and members of foreign African workers employed on the goldmines over the past decade.

Later, in 1912, the Native Recruiting Corporation (NRC) was established to recruit within South Africa.

In recent years, there has been a major campaign underway to increase the proportion of the African labour force recruited within South Africa. The basic reasons for this revolve around the uncertainty surrounding the foreign African labour supply particularly in the wake of Vorster's efforts at establishing detente in the Southern African region (Johnson: 1977, 46-66).

Angolan and Mozambican independence and South Africa's invasion of the former led to a gradual shrinkage of labour from the territories. In addition, following an aircrash in 1974 in which several Malawian miners died, that country halted recruiting by WINELA within its borders (it was subsequently resumed in 1978).

The falling price of gold in 1975 and the international recession

Table 3-1. Foreign Labour in South African Goldmines, 1969-1978.

COUNTRY	1969	1970	1971	1972	1973	1974	1975	1976	1977	April 1978
Lesotho	59,407	61,993	64,214	66,805	76,114	71,930	74,927	81,383	92,875	97,559
Botswana	19,595	19,549	20,511	19,864	20,339	17,037	17,432	19,862	24,676	20,731
Swaziland	5,551	6,147	5,656	4,744	4,821	5,163	7,348	9,941	9,696	9,678
Angola	6,076	4,935	4,986	4,416	2,745	2,780	3,410	2,862	645	182
Rhodesia	3	3	2	3	2	3	2,437	15,939	15,910	13,687
Transkei*	55,728	47,907	39,430	42,555	47,139	-	-	-	88,733	-
Caprivi**	222	175	274	115	-	-	--	224	2,757	214
Kawango**	-	-	-	-	-	-	-	248		1,850
Malawi	52,901	77,329	92,397	106,379	109,723	94,728	22,875	494	6,131	21,893
Mozambique	88,352	92,651	95,900	90,242	83,387	80,737	91,359	67,436	41,667	32,237
TOTAL	287,845	310,689	323,370	325,123	344,270	272,378	219,797	198,389	194,357	198,031

Sources: Survey of Race Relations in South Africa, 1974, 285
Survey of Race Relations in South Africa, 1978, 211.

*Strictly speaking the Transkei should not be considered as a foreign source of labour.

**Caprivi and Kavango are two Mamibian homelands.

following the quadrupling of oil prices by OPEC led to a steadily declining growth rate within the South African economy. This was mirrored in rapidly growing levels of unemployment and discontent in the bantustans (Johnson: 1977, 178-201).

In order to deal with these contingencies a high profile recruiting campaign based on substantially higher wages was launched in the banstustans. As a result, by 1978, the South African proportion of the labour force had risen to 53% (IRR: 1978, 211,212).

Due to its dominant position in the economy, the mining establishment has over the years been able to secure the passage of several key pieces of legislation in support of its aim of minimizing the cost of black labour. The general dictum, "what's good for gold is good for South Africa", has to varying degrees been an underlying theme of all South African governments.

In addition to the Glen Grey Act which established a labour tax on selected African males (Collinicos and Rogers: 1977, 22) curbs on mobility, in conjunction with the Land Act and the migrant labour system, ensured that many Africans would be available for work in the mines and that the system would be self perpetuating.

The Compound System

Once measures had been taken to ensure the availability of a labour supply it became necessary to control the labour force in order to be able to implement and maintain a system of wage minimization. The method that was adopted for this purpose was the compound system. First developed in Kimberley on the diamond mines it later became implemented on the goldmines on a large scale. This was an important form of labour control from which the companies derived both economic and political benefits.

The system helped to keep costs under control and stabilize the African labour supply for the duration of their contracts. Furthermore living standards could be established at a level of subsistence and cost chosen by the companies. It also inhibited absenteeism and desertion (Johnstone: 1976, 38).

On the political level, the system served to maximize the control of the companies over the behaviour of their African workers and served to isolate these workers from the surrounding social environment.

The fragmentation of the African labour force into separate compounds facilitates the management of unrest and insubordination. By sealing off compounds, sending troops to enter them, bringing them under control one at a time and preventing communication between compounds, the mine owners have a great tactical advantage over their African workers. This advantage has over the years been put to good use in defusing strikes and other forms of unrest.

The compounds are constructed so as to be virtual prisons. Living conditions within the compounds may best be described as barbaric. As one commentator put it: "it is to these latter rooms that the migrant repairs from the bowels of the earth, to rooms usually unadorned by chairs, tables or electric light, They are the dormitories in which as many as 24 workers may sleep, in double decker concrete bunks. Defecating is also normally a communal activity, with lavatories allowing for as many as 20 men to sit side by side. Homosexuality is, perforce, the norm, though not a few of the migrants find solace with female prostitutes and almost all find solace in drink. The system is richly productive of drunkenness, all forms of violence, venereal disease, and of course, the familial relationships the men have left behind (Johnson: 1977, 182).

A further effect of the compound system is to isolate the African mineworkers from other workers and social life on the Rand. This overall system of control follows logically from the cost minimization/ profit maximization calculus of the mining companies, particularly in the absence of political and economic power in the hands of the black majority.

The companies have recognized the need to introduce some basic changes into the work environment following the major upheavals of the mid-1970's. They have realized that, given the high price of gold, they need to avoid social upheavals and disruptions in production as much as possible. They have, therefore, made some concessions in the area of food, accommodation and wages while maintaining the overall system.

On the Job Training in the Goldmines

Common sense predicts that firms which are organized along monopsonistic lines with respect to recruiting are more likely to engage in training than their perfectly competitive counterparts particularly if the majority of its labour force is bound by long term contracts which keep workers on the job and enable firms to capture the returns from that training.

In the South African goldmining industry where Africans are recruited along monopsonistic lines and whites along competitive lines the reverse has been the case.

Since white miners are relatively mobile between mines, the Chamber of Mines in conjunction with the state finances their training. The usual training session for these miners consists of 18 months of underground training combined with lectures. Additional training facilities are available for mining officials such as engineers and administrators (Wilson: 1972, 91,92).

Since black miners are on average, limited to a one year stint due to the migratory labour system and have zero mobility between mines it pays the individual mine to engage in a small amount of training. Prior to W.W. II, there was no training for all but the "boss boys". The mineowners essentially viewed their African labourers as dispensable, undifferentiated units of labour and acted accordingly (Wilson: 1972, 94). Thus, over the period, almost all the increases in output were due to more extensive uses of inputs rather than more intensive use of the existing inputs.

In the postwar period, surface training schools were established for African miners. These were responsible for basic training which served to increase the productivity of black labour without having to share the increased returns with them.

In the last decade, a growing shortage of skilled workers has resulted in many blacks being employed in positions formerly closed to them by law or custom. Many blacks were being trained as artisans and were participants in job-fragmentation programmes at higher wages than previously (Davis: 1978, 18). The net result has been an upward shift in the colour bar rather than integration on the basis of merit.

The Anglo-American corporation, to the dismay of the white mine-workers union, has lobbied recently for the complete abolition of job reservation and the establishment of job integration as a first step towards meeting the increasing skills shortage and improving productivity (IRR: 1978, 148). Keeping in mind Anglo-American's dominant position in the industry and its strong position in the national economy it is likely that those remarks will be taken very seriously by the country's political leadership. However, for the moment at least, the difficulties attendant upon introducing such measures are likely to see them shelved for future consideration.

Wages and Working Conditions

Wages

Wages in the goldmining industry have traditionally been below those in all other sectors except agriculture (see Table 2-1). African wages in the industry are both absolutely and relatively low when compared with white wages (see Table 3-2). Conversely, as we shall see later, profits in the industry have traditionally been high.

The Chamber of Mines has been very successful in keeping the lid on wage increases for Africans. Wilson, for example, reports that, in the period 1911-1969, African real wages on the goldmines declined marginally (Wilson: 1972, 46). Over the same period white real wages, profits and output all increased by significant amounts. The general explanation for this kind of situation can be cast in terms of the organization of the industry (see last section). This question is dealt with at length in a subsequent chapter.

From Table 3-2 which demonstrates the general wage position on the goldmines in the postwar period the following trends are observed: (a) a widening of both the absolute and relative wage gaps until 1971, and (b) a widening of the absolute and narrowing of the relative wage

Table 3-2. Annual Cash Earnings on the S.A. Goldmines, 1946-1977 (In current Rand).(i)

Year	White Earnings	Black Earnings	Absolute Gap	Ratio W:B)
1946	1106	87	1019	12.7:1
1951	1607	109	1498	14.7:1
1956	2046	132	1914	15.5:1
1961	2478	146	2332	17.0:1
1966	3216	183	3033	17.6:1
1969	4006	199	3807	20.1:1
1970	4248	204	4044	20.8:1
1971	4536	216	4320	21.0:1
1972	4752	252	4500	18.8:1
1973	5700	348	5352	16.4:1
1974	6720	552	6168	12.1:1
1975	7392	948	6444	7.8:1
1976	8511	967	7544	8.7:1
1977	9336	1224	8112	7.6:1

(i) This table has been derived from two sources. These are:
(1) Survey of Race Relations in South Africa, 1971-1978 inclusive. In the latter case figures were given on a monthly average basis. These were multiplied by 12 to give annual figures. However, certain differences may obtain between the calendar year and the working year which might make the post 1969 figures not strictly comparable with those up to 1969. Nevertheless, the figures as they stand are adequate indicators of the general situation obtaining.
(2) Wilson: 1972, 46).

gap since 1971. Again, a subsequent chapter will attempt to account for the observed behaviour and attempt to incorporate it into a general explanation of wage determination in the goldmining industry.

Working Conditions

Working conditions reflect three basic considerations: (i) the employer's attitude towards the safety of the employees, (ii) the employees ability to force the employer to make adjustments to the workplace which will result in greater safety and (iii) the nature of government intervention.

It is the contention of this section that the government and the mining companies successfully allied against the African workers for the purposes of control and ultimately profit maximization and that, as a result, safer working conditions were an extremely low priority in the calculus of either the government or the companies. The African labour force was emasculated by a barrage of legislative or customary practices which did not allow it to successfully resist these conditions. It is only recently that the mining establishment has come to realize the potential payoff involved in safer working conditions, in terms of morale, productivity and profit.

Goldmining in South Africa is dangerous business for those in its employ. Over the past decade, for example, over five thousand miners have died on the job and close to a quarter of a million have been injured for periods exceeding two weeks (Republic of South Africa, Department of Mines, Annual Reports: 1969-1978).

In the early going, there was an extremely high mortality rate among Africans recruited from north of the 22nd parallel. Literally thousands of them died from heat prostration and recruitment from those areas was temporarily banned while a means of acclimatizing these workers was found.

Over the period 1936-1966, some 19,000 miners died on the job (Wilson: 1972, 21). The toll in terms of occupational diseases has been even higher and has been accentuated by the migrant labour system which allows the companies to replace ailing miners at low cost and shift the burden for their care onto the homelands.

This loss of life and misery is the inverse of the prosperity generated by the efforts of these men. What has been profitable for the government, the mining companies, the financiers and speculators has been bloody and painful for the African miners.

In part, the dangers associated with goldmining in South Africa derive from the inherent danger of the work. This danger stems primarily from the depth at which mining takes place. Many mines operate at depths at in excess of six thousand feet (Wilson: 1972, 15). Technology for deep level mining is far from being perfected despite an early genesis (1892). This is attested to by the major causes of injury and death. These are, in order of importance, falling ground, runaway trains, flooding and fires (S.A. Government, Department of Mines, Annual Reports). According to the South African Labour Bulletin, the major reason for the prevalence of these kinds of accidents is inadequate safety measures which reflect an unhealthy disrespect for human life (Kooy: 1979, 43).

Recently, moves towards greater mechanization and the consequent reorganization of the work place have led to a greater concern for safety. Owners now have a stake in improving safety conditions because it is economically sound to do so. Disruptions in production, whatever their cause, can be costly in terms of both profits and publicity.

Occupational Diseases

The major group of occupational diseases facing goldminers in South Africa are those affecting the lungs and respiratory system. These diseases account for far more deaths annually than those occurring as a result of accidents on the mines (Wilson: 1972, 51). This is partially the result of the migrant labour system and partially the result of inadequate medical attention upon diagnosis for black miners.

The migrant labour system acts to increase the number of African miners exposed to the hazards of goldmining (some 400,000 every year) and allows the companies to replace miners diagnosed as being pneumoniociotic with fresh ones, ready and able to work. In contrast to white miners, black miners are sent home with lump sum payments and are not allowed to be re-employed (Katz: 1979, 73).

The major disease is sillicosis, an incurable, non infectious disease caused by the continuous inhalation of microscopic particles of quartz dust (Katz: 1979, 66). Due to the fact that the strata in which gold is found is (60-80)% quartz the risk of contracting sillicosis is particularly high (Katz: 1979, 67).

Another disease frequently associated with goldmining is tuberculosis. This is more the indirect result of the stress associated with goldmining which tends to compound the problem of malnutrition in the homelands (Katz: 1979, 77). There is, as further evidence, a high level of tuberculosis in homeland areas to which miners have been repatriated.

Living conditions for Africans on the mines tend to exacerbate matters. The dehumanizing compound system reduces the quality of life for African miners quite dramatically. This can be compared with the situation prevailing for the stabilized white labour force. They are provided with homes and high quality medical treatment. In addition, those who are diagnosed as being sillicotic are allowed to be re-employed with the mining companies in no risk jobs (Katz: 1979, 73).

The differential value placed on white and African labour is further reflected in their compensation payments. Whereas the wage gap has decreased in recent years, the compensation for occupational diseases gap has continued to increase (Katz: 1979, 76). In addition, many blacks are not diagnosed on the job as the germination time for sillicosis is fairly long so a large number never receive compensation.

From the above discussion on working conditions, we can draw some tentative conclusions: (i) safe working conditions occupy a low priority in the employer's calculus with the emphasis on care rather than on prevention, (ii) the working environment has differential impact on white and black miners with part of the burden for convalescing black miners shifted onto the homelands.

We can now enter into an analysis of the reasons for the above situation. In the first instance, working conditions are not negotiable, i.e. they do not fall within the scope of collective bargaining in South Africa (Adler: 1979, 65). The result is that the unionized segment of the labour force cannot negotiate with the employer to provide safe working conditions which would have a spinoff effect on the entire labour force. In addition, the mere fact of a divided working class allows the employer to do things he would not normally be able to do.

Traditionally, the economic cost of preventative measures has been greater than the returns and thus little incentive existed to invest in them. This is largely the result of the fact that compensation payments for occupational diseases are paid by the Workmen's Compensation Board and that employers are protected from litigation in respect to occupational diseases (Adler: 1979, 58). Thus, accidents and ill health are not viewed as a major cost by industry whereas improved safety measures are.

Given all of the above, one might expect the state to take an active role in establishing safe standards. However, the role played by the state in South Africa has been to issue guidelines rather than to enforce them with the result that management prerogative has been the operant factor (Adler: 1979, 57). Given the cost considerations, there is little incentive for management to comply.

The working conditions outlined above merely serve to reinforce the general conclusion, that because of their position in the political economy, black South Africans are unable to advance their physical and material circumstances. Changes in this position as a result of internal pressures and international condemnation of the system have caused some changes to occur with respect to the African labour force. However, these changes affect a small segment of the labour force and population and are thus not reflected very widely in generalized improvements in the African standard of living.

The Alliance with White Labour

At the time of the discovery and subsequent expansion of the goldfields in South Africa there was a general shortage of labour. On the one hand a large number of unskilled labourers were needed in order to maximize output. On the other hand, a much smaller corps of skilled workers were needed to do jobs like supervising the handling of dynamite and driving the tramcars, etc.

Within South Africa and to the north of the country resided large numbers of Africans who by and large were not very much acquainted with the market system. Specific measures were taken to ensure that they came to heel and were "willing" to work for the goldmines. These measures included debt inducement, taxation, curbs on mobility and the removal of their means of subsistence.

In order to fill the skilled jobs, trained people were needed. Since the specific skills required for mining were not available in South Africa people had to be attracted from abroad. The basic means of attracting them was high wages. However, these men were not novices and in addition to high wages, they wanted job security. They were the most militant and highly organized segment of the labour force and because of their strategic position in the production process they could shut down the goldmines by going on strike, which they often did.

Over time, as the experience and skill level of African workers began to grow the white mineworkers fought for and received statutory protection against African encroachment. They realized that if Africans could do the same job at lower cost there would be strong incentives to hire Africans. There was a real conflict of interest here for the mine owners, representatives of British capital, wished to minimize costs while the white workers who increasingly seemed to represent a high cost alternative to African labour wished to increase their wages and job security.

After several clashes of will, culminating in the Rand rebellion and the formation of the Pact government in 1924, the mineowners realized that given the prevailing social conditions they were being presented with a golden opportunity to minimize costs by allying with Afrikaner nationalism and white labour against the Africans. In this way, they could simultaneously harness the racism inherent in Afrikaner nationalism and the fear of being undercut in white labour thus co-opting the most militant segment of the labour force and transferring some of the burden of controlling the Africans to the laps of those perhaps more suited for the task.

When the Africans were banished to the homelands and taxes imposed on them they could be employed on the goldmines at below subsistence cost. Recruiting organizations enticed them with vague promises and empty hopes. In this way the vast majority of the labour force could be severely underpaid. The white workers could be given increased wages and job security. The government could receive its share in the form of profit sharing and taxation. The mineowners could maximize profits and return high dividends to Bond Street. Everybody was happy except the African, but then he was a member of the subject race.

As was mentioned earlier, the net result for Africans of this alliance between the aristocracy of labour, British capital and Afrikaner nationalism was wage rates below the subsistence level. This was an important consideration which had ramifications for African wages throughout the economy leading to results such as those illustrated in Table 3-1.

The Impact of Industrial Unrest

The goldmines have often been at the center stage of industrial unrest in South Africa. Massive strikes in 1913 and 1946 by African mineworkers were crushed by force. Likewise, the spate of strikes on the goldmines in the 1970's. Between September 1973 and March 1976, 162 miners died violently at the hands of police (Collinicos and Rogers: 1978, 86). The root cause of the unrest is a combination of frustration with the migrant labour system, the compound system, unsafe working conditions and low wages. In short, the entire system of labour deployment on the goldmines.

Due to the high price of gold in the 1970's the cost of disruptions in production can be very high. In order to avert unrest on the mines the companies have raised wages quite substantially and have gone some way towards improving working conditions. Nevertheless, sporadic strike action has continued because of frustration with the migrant labour and compound systems. The sparks are there and can easily be fanned into a fire unless conditions are changed, particularly now that most of the labour force is from within South Africa.

CHAPTER IV

MAJOR FACTORS INFLUENCING THE DETERMINATION OF WAGES IN THE SOUTH AFRICAN GOLDMINING INDUSTRY

As we have seen in previous chapters, low returns to African labour have become a perennial feature of the South African economy. This feature has its roots in the early history of the goldmining industry which dominated the South African political economy and was able to institute measures to effectively suppress African wages. Even today the industry continues to be a barometer of the level of exploitation of African workers. Workers in the industry receive less than their counterparts in other sectors of the economy except agriculture (see Tables 2-1, 3-1).

The general purpose of this chapter is to develop an explanation for the wage behaviour demonstrated by the South African goldmining industry during the postwar period. In order to accomplish this a number of features of the political economy are analyzed and eventually integrated into a general model accounting for the observed behaviour.

The Position of Blacks in the Political Economy

The previous chapters outlined various aspects of the position of Africans within the South African social system. For the purposes of this chapter we need to draw together some of these aspects and determine their implications for the hypothesis.

The general conclusion one can draw from the available evidence is that Africans hold an extremely subordinate position in the South

African political economy. They are essential to the smooth functioning of the economy yet receive little or none of the benefits deriving from that economy. This is because the instruments of social control are in the hands of white South Africans.

In the economic sphere, lack of land and capital severely circumscribe opportunities for capital accumulation. Africans are thus almost completely dependent on subsistence agriculture and the sale of their labour power to "white South Africa". High levels of unemployment and controls on their mobility mean that Africans form a reservoir of labour which can be drawn on when needed by the white economy and on terms dictated by that economy. Any slowdown in the South African economy (such as occurred between 1974 and 1977) is reflected in increased African unemployment and poverty. The high surplus value deriving from African labour is retained in white areas for the benefit of those areas.

At the political level, Africans have no representation in the central government. They thus have little or no input into decisions fundamentally affecting their wellbeing. Consequently, African advancement is closely linked to the needs of the white economy. Expenditures on education and health care have traditionally been a low priority in the government's budget. As a result, the average skill content of the population is low, e.g. 59% of the population over age fifteen were illiterate in 1977 (UNESCO: 1977, 44). Further, widespread malnutrition leads to a demoralized and bitter population. This is further reinforced by the fact that, in 1972, the physician/population ratio was 1:400 for white and 1:44,000 for Africans (Magubane: 1979, 2).

The legal system is structured in such a way that potential avenues of advance for Africans are shut off. Thus, representative free trade unions are not allowed, apprenticeship programmes are very restricted, geographic mobility is severely impeded, etc. All African political rights have been transferred to so called homelands which have little or no chance of providing them with an economic base or a political voice strong enough to secure their basic interests. It is in the interests of the government to maintain this state of affairs so that a large low cost labour supply can be forthcoming to serve the needs of the white economy. That they have been anxious to maintain this state of affairs is reflected in the fact that, in recent years, expenditures on the homelands have been less than the increases in expenditures on national defence (Minty: 1976, 14; IRR: recent issues, Gann: 1978, 27).

The implications of the above for wages is that, since avenues of advancement for Africans have been effectively closed off and dependence on the white economy institutionalized through such measures as the homelands and migrant labour system, African wages can be kept artifically low. In general, since whites control all the key economic and political variables, they can, within broad constraints, manipulate them to ensure low wages for Africans and conversely high growth and profit rates within the white economy.

In recent years, changes in the political economy (discussed later) have acted to increase the bargaining power of African labour. This has generally resulted in higher wages and improved working conditions for the most visible segments of the African labour force. The durability and longer term effects of these changes are as yet unclear but the mood of the African population would seem to suggest a clear understanding that the struggle is a political one and a resolve to carry it through to its logical conclusions.

Migrant Labour, Bantustans and Unemployment in South Africa

For the purposes of this section, migrant labour may be defined as the offering of labour services by migrants in markets geographically separated from their places of residence. The causes and general nature of migrant labour have been extensively studied. Two general kinds of migrant labour can be distinguished: (i) the kind taking place between different countries such as in Western Europe and (ii) the kind taking place within a single country such as rural/urban migration as part of the development process or that taking place in countries with dual economies.

The general incentive for migration is the existence of differential economic opportunities between regions and countries. To some extent this is a direct result of the capitalist mode of development which leads to concentrations of resources both at the national and international level. These concentrations of capital act as magnets drawing labour power and resources from their hinterlands.

The difference between the first and second types of migrant labour, is that in the first case the labour tends to be oscillating whereas in the second case there is a tendency for a stabilized labour force to develop over some time (Wilson: 1972, 121). Another phenomenon closely associated with migrant labour, particularly in developing countries, is large scale urban migrant unemployment.

Having articulated some general features of migrant labour we may now turn to the specific features of the migrant labour system as it operates in South Africa. In the South African context, migrant labour may be viewed as a hybrid of the two types mentioned earlier. Migration is both from internal and external sources and the legal framework ensures that all migration is of the oscillating type.

The migrant labour system has been in existence since the very beginning of the mining revolution in the late nineteenth century. It formed the basis for organizing the labour supply in the goldmining industry which formed the prototype for labour utilization throughout the South African economy.

Over time, the system has been encouraged to expand by means of legislative measures leading to the impoverishment of the African people and forcing them to seek employment in the white sector. It is precisely the availability of this source of low-cost labour which has enabled the rapid growth and development of the white sector.

Another distinguishing feature of the migrant labour system in South Africa is the high proportion of the labour force engaged in it. Some 70% of the entire labour force is made up of these oscillating migrants (Magubane: 1979, 92). Furthermore, it is the stated aim of the South African government to make migrant labour the sole basis on which Africans can legally be in South Africa (Magubane: 1979, 92).

The general effect of legislation has been to dispense with the urban African unemployment problem by sending unemployed Africans to the homelands and essentially trying to match an area's labour needs with a similar labour supply through the system of labour bureaux in the homelands (Davis: 1978, 9).

The migrant labour system in South Africa serves two general functions. In the first place it provides a steady supply of African labour at below subsistence cost to the industries of the white metropolis. By imputing a share of homeland income to migrants whether or not they receive it and by saving on the cost of such social overheads as supporting a family, vacations and training, the owners of capital have been able to pay wages well below subsistence.

These costs are borne by the homelands to some extent. The general relationship between the homelands and the white sector has been of the metropolitan/hinterland type. Specifically, development of the white sector has been accompanied by a process of underdevelopment in the homelands.

The second function of the migrant labour system is an ideological one. By keeping the races separate and unequal, white superiority can be tangibly demonstrated. This is an important element in the government's mandate.

The migrant labour system is a good example of the level of co-operation between British capital and Afrikaner nationalism in the face of common threat. With the growth of an Afrikaner commercial class and the penetration of Afrikaner capital into all facets of the economy, including goldmining, the potential for co-operation between Boer and Briton has improved considerably albeit at the expense of intra group solidarity (C llinicos and Rogers: 1977, 33).

It is the contention of this section that migrant labour forms part of a perverse system with the general aim of impeding the economic opportunities available to black South Africans for the purpose of extracting an increased surplus value from them in the white sector. Specifically, it is the institutional means whereby the super exploitation of African labour can be achieved.

The sine qua non of the system of migrant labour is the existence of homelands. As recounted earlier, the Land Act of 1913 and the Native Trust Act of 1936, set aside some 13% of the land of the republic for African occupation. These areas were generally removed from the main centres of industry and their agricultural potential was limited. Infrastructure, in the form of transportation networks was conspicuos by its absence, e.g. none of the homelands had any ports.

As also recounted earlier, various official commissions of enquiry culminating in the Tomlinson Commission, delineated very clearly the problems confronting the homelands and suggested solutions, primarily along the lines of developing the homelands so that they could be self-supporting. Once the Tomlinson Commission's report had been tabled, the government made a very clear cut decision not to develop the homelands but rather to concentrate on the establishment of border industries (Lemon: 1976, 183). The implication of this was that the homelands would continue to be dependent on the republic and that separate development could be pursued at the least possible cost. By granting "independence" to the homelands and making all Africans citizens of the homelands whether or not they had ever seen them, let alone lived there the government could treat Africans as foreigners in their own country and insist on the expansion of the system of oscillating migration. In addition, the denial of political and economic rights to Africans could be continued, the rationale being that those rights accrued to them in the homelands.

In what follows, an attempt will be made to spell out some of the mechanisms whereby homeland reliance on "white South Africa" are reinforced.

The first major problem in the homelands is a regressing agricultural sector. A major reason for this is a sheer lack of land. A high proportion of the population is landless, e.g. 33% in the Ciskei (FAO: 1978, 46). In addition, a high proportion of those having access to land, have access to units of sub-economic size, e.g. 98% in the Transkei and Ciskei (FAO: 1978, 46). The reasons for this are many. In the first instance, the practice of allowing the chiefs and headmen to be responsible for land allocation has meant that only they have access to sufficient land (Butler: 1977, 196). The rest of the land is distributed on a communal basis and there is simply not enough to go around.

The implication of homeland "independence" for Africans living in the White sector, particular the unemployed or the infirm has been patriation. Between 1960 and 1970 more than three million Africans were forcibly removed to the homelands (Magubare: 1979, 90). These included individuals endorsed out of urban areas in terms of Section Ten of the Bantu (Urban Areas) Consolidation Act, entire villages which formed what the government called "black spots" and other Africans superfluos to the needs of the white economy. The evidence suggests that in almost all cases, the material circumstances of those affected were considerably reduced and that migrant labour was the only way in which grinding poverty could be somewhat alleviated (Baldwin: 1974, 30). In short, a reserve army of labour has been growing in the homelands.

The average population density of the homelands is some three and one-half times the overall population density of the country as a whole (Magubane: 1979, 89). Some homelands have population densities in the same range as Java and Haiti making them amongst the most densely populated areas in the world (Butler: 1977, 19).

A further problem occurring in the homelands is that of the overstocking of cattle which leads to problems of erosion due to overgrazing and leads to competition for food. Many Africans have traditionally and still do hold their savings in the form of cattle. Attempts at culling herds have thus met with staunch resistance (FAO: 1978, 42).

These problems combined with a general lack of capital and infrastructure have resulted in a regressing agricultural sector. Agricultural production on a per capita basis has been declining for some time. In 1975, for example, the homelands could feed less than one quarter of their populations from domestic sources (Callinicos and Rogers: 1977, 25).

Another dimension of the problem is the failure to introduce any intermediate form of technology which would have the advantages both of being more accessible and more comprehensible. Instead, the government budget has been concentrating on promoting capital-intensive commercial farming (FAO: 1978, 44). Consequently, the homelands have become growing net importers of food (FAO: 1978, 40). Since distribution of this food is through the market system and most residents of the homelands have very limited access to funds, the average caloric intake is very low and malnutrition is widespread (see section on Health, Chapter Two).

The means of financing this large scale importation of food is through the export of labour. This is the case since there is a general lack of alternative income producing activities in the homelands. As Butler points out: "unlike some other developing countries, the homelands have not inherited a colonial industrial, plantation or mining sector that could constitute the core of an industrial base" (Butler: 1977, 123). The modern sector is of limited importance in the homeland economies, the largest part being the public service (Butler: 1977, 123). Employment in mining and manufacturing constitute only a small fraction of the economically active population of the homelands.

In those homelands which have a significant mining sector, e.g. Bophutatswana, capital accumulation is severely constrained by the fact that mineral rights are not vested in the homeland authorities but in the South African central government. The economic rents deriving from those minerals are thus captured by the white economy. In addition, homeland governments cannot tax South African businesses within their borders (Butler: 1977, 144).

The homeland governments are severely constrained by the fact that they depend on the Republic for over 80% of their revenues (Butler: 1977, 145). While business has been booming in "white South Africa" the homelands have slowly but surely been regressing. Expenditures on the homelands form a very small part of the central government's budget (± 4%) and generally amount to less than one quarter of the amount spent on national defence (see Table 4-3). No large scale schemes to rehabilitate agriculture or develop industry have been introduced, per capita incomes have been stagnant or declining, e.g. in 1954 current dollar per capita income excluding migrant remittances was R25.80 per annum. With the remittances it came to R48/annum. In 1969, the equivalent figures were R22 and R53 respectively (Callinicos and Rogers: 1977, 25). This suggests that, in relative terms, domestic sources of income have been declining in importance when compared to migrant remittances. In fact, in real terms, all sources of income have declined when looked at from a per capita point of view.

Despite the absence of government statistics on African unemployment and the general difficulties involved in measuring unemployment in a dual economy, all indications are that African unemployment and underemployment have been growing apace. As Knight puts it: "the available evidence indicates a rapidly growing African labour force which the capitalist sector of the South African economy has been unable to fully absorb in the postwar period" (Knight: 1978, 119).

The available evidence seems to suggest that contrary to the widely disseminated belief that Africans in South Africa are materially better off than their brothers to the north, in the homelands at least, the reverse is in fact the case.

What one could reasonably deduce from all of the above is that it has been deliberate government policy to keep the homelands in a state of economic and political dependence for the purposes mentioned earlier viz low-cost labour and ideological demonstrations.

This dependence on the Republic is further underscored by the fact that the homelands rely on remittances from migrant labourers for over 50% of their cash incomes (Turok: 1976, 83). There are, in addition, a number of leakages from the migrant income stream. In the first place, a large proportion of migrant earnings are spent in the white sector (Turok: 1976, 81). In the second place, another large proportion of the money spent in the homelands is for imported good since the level of production is low. The ultimate effect is a greatly reduced multiplier and continued reliance on migrant labour to increase incomes.

Another set of factors reinforcing the above mentioned pattern of relations is the structure of the migrant labour force. In general, the migrant labour system results in the homelands losing the bulk of their young, educated, economically active males. Fifty percent of all migrants in 1970 were in the 14-29 age group (Nattrass: 1976, 72,73). At the educational level of primary school plus four years the rate of out-migration from the homelands reaches 90% (Nattrass: 1976, 70). Examining masculinity ratios gives one some idea of the sexual imbalances generated by the migrant labour system. For Bophutatswana and Kwazulu they are .88 to 1 and .75 to 1 respectively (Butler: 1977, 19). In the Transkei,the first "independent" homeland some 70% of the economically active men are away working in South Africa and some 75% of average family income comes from remittances (FAO: 1978, 40).

There is a steady stream in the reverse direction of the old, the incapacitated, the unemployed and the unemployable. This steady stream of human cargo is highly reminiscent of the slave trade.

The implications of all of the above are clear. The withdrawal of prime human resources generated by the migrant labour system serves to perpetuate and expand the status quo. The greater the proportion of economically active people outside the economy, the less the opportunities for development. In addition, the homelands are stuck with the problem of administering a hungry, demoralized and dependent group of people. The returns on homeland investments in education accrue in white areas.

Conditions for migrants within "white South Africa" are far from appealing. Generally, they are relegated to the lowest paying jobs of all those available to Africans. The better paying jobs in the manufacturing industries and mining are reserved for the stabilized African labour force (Wilson: 1972, 182). In addition, migrant labourers have absolutely no political rights within South Africa. They are subject to immediate deportation in the event of trade-union activity, criminal activity or pass-law infringements. The recent government white paper on labour legislation following the publication of the report of the Wiehann Commission suggested that upcoming legislation dealing with the question of African trade unions would not apply to migrant labourers.

Housing for migrants is in the form of ethnically divided single sex hostels in urban areas and compounds in the mining areas. This kind of arrangement makes it easier for the government to control the behaviour of migrants. It is difficult for migrants to organize trade-unions under these conditions. In addition, divisions between migrant labourers and permanently settled workers can be exploited as in Soweto and even further divisions among migrants on ethnic grounds can also be used to divide and conquer.

The social costs of migrant labour have been a subject for debate within South Africa for many years. Nevertheless, the system has not only continued but expanded. The effect of migrant labour deployment on equity and efficiency will be discussed in greater detail in a subsequent chapter. Suffice it to say here that the available evidence suggests that, on balance, the effect of the system is strongly negative in both cases.

As indicated earlier, the greater proportion of migrant labour has traditionally been from foreign sources. Indeed, the entire Southern African subcontinent serves as a labour catchment area for the Republic. Many of the general conclusions derived from the above discussions apply to these countries.

In the first instance, a general pattern has developed in which the agricultural sector has declined, food has had to be imported and remittances from migrant labour have played a large part in paying for it. In Lesotho, for example, maize production has almost halved each decade since 1950 (FAO: 1977, 11). In Swaziland, 35% of resident homesteads have no males over age sixteen (FAO: 1978, 13). In Botswana, the total migrant labour population is almost equal in size to the population engaged in paid employment within the country (FAO: 1978, 14). The United Nations Economic Commission for Africa had the following to say on the subject: "The Botswana school leaver has two options: migration or unemployment" (FAO: 1978, 14).

In these three cases at least the money from migrant labour was a dominant factor in the national economy. In Lesotho, for example, remittances from migrant labour are approximately twice the size of GDP (Kane-Berman: 1976, 43).

In the cases of Malawi, Mozambique and Angola the same has been true but to a lesser extent, particularly after the decolonization of the latter two which led to a change in direction away from dependence on South Africa.

As mentioned earlier, the relative uncertainty associated with the labour supply from Zimbabwe, Angola, Mozambique and Malawi has led to the encouragement of a higher level of internal migration. Nevertheless, migration from Lesotho, Botswana and Swaziland has continued to grow and their level of dependence on South Africa has increased over the years. These countries are members of the South African Customs Union. Attempts by the regime to extend the customs area to those countries mentioned earlier were largely thwarted by developments within the region which gravitated against the possibility of formal economic co-operation with South Africa.

Being economically subject to the Republic implies that the Republic could use its influence to attain objectives both economic and political at the expense of these countries. Some of the directions in which the Republic has tried to persuade these states include recognizing the homelands and the exchange of diplomatic personnel which could be used to consolidate its position and give legitimacy to the status quo within the country. It also gives industries in the Republic the flexibility necessary to maintain a low-wage structure. All in all food is an important bargaining tool.

Manifestations of the Exploitation of Black Labour

How Wages are Determined in the Goldmines

In the South African goldmines, the competitive determination of wages was replaced at an early stage of monopsonistic determination of wages by the Chamber of Mines. The formation of the Native Recruiting Corporation in 1912 fully monopsonised labour recruitment and established a system of uniform wage rates for Africans. Competition for labour from other sectors of the economy was neutralized by importing the majority of workers from adjacent countries. This had a beneficial effect on all employers in the country since it increased the overall supply of labour.

The mining companies were thus able to minimize their wage bills in the following ways: (i) by setting extremely low hourly and piece-work rates for Africans, (ii) by a system to restrict the earnings of Africans engaged in piecework, known as the maximum average system and

(iii) by a system of unpaid contractual labour known as the loafer ticket system.

The Maximum Average System

The Chamber of Mines included in its schedule of rates of pay for African workers a provision that the average wage paid to African workers engaged in piecework could not exceed a certain maximum and that any company belonging to the Chamber which allowed their average to exceed the maximum was subject to a fine (Johnstone: 1976, 42). This became known as the maximum average system. Over the years the maximum average system has been very effective in minimizing the cost of black labour.

The maximum average system is still in place today. Flexibility, in the form of a sliding maximum depending on the proportion of the workforce engaged in piecework was introduced at various times to facilitate the smooth functioning of the system. (Johnstone: 1976, 43).

In the 1970's, two of the seven mining houses, the Anglo American Corporation and Johannesburg Consolidated Investments, broke away from the maximum average system by offering higher wages than the others. Whereas the Chamber of Mines had agreed to a minimum of 55¢ surface and 72¢ underground in 1973, AAC and JCI were offering 80¢ and 90¢ respectively (Kane-Berman, 1976, 41). The following year they fell back into line but continued to press for higher wages within the Chamber.

In the past, the Chamber of Mines has generally met shortages of labour by extending its recruitment activities rather than by increasing wages. The recent wage explosion is the culmination of a number of factors and is indicative of a new direction both within the goldmining industry and the economy as a whole which will be explored more fully in a later section.

The Loafer Ticket System

African workers engaged in drilling work were paid at piece rates which varied according to the number of inches drilled. It was the practice of the companies, incorporated in the Chamber's pay schedule to employ those workers for several hours before their drilling work in lashing and shovelling which was not specified in their contracts and for which they were not paid (Johnstone: 1976, 43). Then, if, as was often the case, these workers after doing this other work, failed to drill a certain minimum number of inches, they were subjected to a double penalty. They received no payment (later a token payment) for that shift and that shift was not counted as a contract shift (Johnstone: 1976, 45). They received what were known as loafer tickets for that shift and an additional shift has to be worked for each ticket received in order for contractual obligations to be fulfilled.

In this way, the supply of effort could be increased and the wage bill minimized.

The maximum average system had the effect of reducing the profitability of the most profitable companies. The rationale for the system was that the volume of profit that could be accumulated from the largest possible number of small companies that could operate profitably (even at a low rate of profit) was greater than the total profit that could be accumulated from the activities of a few companies operating at a high rate of profit (Johnstone: 1976, 45). In this way, by encouraging the maximum volume of profit the return to the South African government and to British capital could be maximized.

The Exploitation of Black Labour

In this section we will consider more explicitly the question of the exploitation of black labour. To facilitate this we will employ the concept of the rate of exploitation which is the ratio of gross profits to the total wage bill. In order to get a comparative perspective we will examine the same concept for the Canadian goldmining industry. Having done this we can analyze the implications of the results obtained. Next we will examine the distribution of profits among the government, shareholders and savings and show how this is related to the continuing exploitation of black labour. Tables 4-1 and 4-2 show gross profits, total wage bills and their proportions of total revenue for the South African and Canadian goldmining industries for the period 1967-76 respectively.

As a preliminary to the comparison that follows it would be appropriate to mention a few of the limitations involved. In the first instance, goldmining is central to the South African economy whereas it is only peripheral to the Canadian economy. In South Africa, it is the leading export industry and contributes significantly to GDP and government revenue. The goldmining industry has underwritten the development of manufacturing first, through a demand for its products and subsequently through government instituted redistribution policies and the generation of foreign exchange making possible the high level of imported equipment on which manufacturing depends. In Canada, the goldmining industry plays a minor role in the country's economy, not contributing significantly in any of the areas mentioned above.

The implication of this is that, *ceteris paribus*, the South African industry is more likely to be regulated in the "national interest" than

TABLE 4-1. The Rate of Exploitation of Labour, S.A. Goldmining Industry, 1967-76.

Year	Gross π (RM)	% of TR	Total wage bill (RM)	% of TR	Rate of exploitation
1967	288.6	39	219.9	29	1.31
1968	289.6	37	227.0	29	1.27
1969	306.1	37	231.6	28	1.32
1970	283.1	35	247.0	30	1.14
1971	322.4	36	258.0	29	1.24
1972	525.3	46	274.2	24	1.80
1973	983.7	56	351.1	20	2.80
1974	1570.7	62	456.6	18	3.45
1975	1319.9	51	600.5	23	2.89
1976	910.4	37	682.5	19	1.34
MEAN	R679.9M	44	R354.8M	26	1.86

Source: State of South Africa, Yearbook, Pretoria, Queen's Printer, 1978.

Symbols: π = profit
RM = million rand
TR = total revenue

TABLE 4-2. The Rate of Exploitation of Labour, Canadian Goldmining Industry, 1967-76.

Year	*Net π before tax	% of TR	Total wage bill (RM)	% of TR	Rate of exploitation
1967	42.1	24	37.5	21	1.11
1968	47.0	33	32.6	23	1.44
1969	42.3	32	26.2	20	1.62
1970	22.4	19	22.9	20	.91
1971	16.9	12	26.0	19	.65
1972	N/A	--	N/A	--	--
1973	8.08	4	41.4	18	.19
1974	102.7	36	53.6	19	1.81
1975	68.0	29	69.6	29	.90
1976	33.6	19	65.0	37	.51
MEAN	$42.5M	23	$41.6M	23	1.01

Source: Corporation Financial Statistics, DBS, Statistics Canada, 1967-76.

*Corresponds more closely to the South African concept of Gross π In South African case gross includes income from ancilliary activities whereas in Canada gross does not but net does.

its Canadian counterpart. In addition, structural rigidities in the South African economy introduced by the policy of Apartheid means that the industry is not able to employ least cost combinations of labour. The Canadian industry works in an environment representing more closely free enterprise whereas its South African counterpart operates in a framework of state capitalism. Nevertheless, comparing them is useful and important conclusions can be derived with respect to the role of the state under different forms of capitalism.

In the South African case, we can see a steady growth in both profits and wages over the period examined with profits growing faster and being more subject to fluctuation than wages. In the Canadian case, there is much greater fluctuation in both profits and wages with profits again being subject to the greater fluctuation of the two. The general reason for profits being more subject to fluctuation than wages is that prices are determined during the course of an accounting period whereas wage commitments and employment levels are generally determined at the beginning of the accounting period. Profits are thus more vulnerable to changes in market conditions and price during any given accounting period.

Referring to Tables 4-1 and 4-2 we see that wages and profits jointly form a much higher percentage (70%) of total revenue in South Africa than in Canada (46%). In addition, the relative share of profits to wages is about 2.1 in the South African case whereas they are more or less equal in the Canadian case. What this indicates is an industry with a much greater ability to extract surplus value in South Africa. If we were to examine this from the point of view of African wages particularly on a per capita basis the distinction between profits and wages would be even greater.

Africans have historically formed over 90% of the labour force on the goldmines. It was only in 1975 that the total African wage bill surpassed the total white wage bill. It quickly becomes clear that by far the greater proportion of the surplus value extracted from the goldmining industry is at the expense of the African labour force.

The average rate of exploitation for labour in the South African goldmines for the past decade was 1.86 compared to 1.01 for Canadian goldmines. If one were to conceptualize a rate of exploitation for black labour it would be much higher though declining somewhat over the period. Surplus value in the South African industry is thus higher in both absolute and relative terms.

The general implications of all of the above is that the super low wages paid to African labourers are reflected in the ultra high profits generated in the industry. Furthermore, as we shall see below, the use to which these profits are put serves to perpetuate the system and ensure a continued flow of surplus value.

Subject to the limitations mentioned above and subject to the available data we can draw a few tentative conclusions from Table 4-4. The proportion of goldmining profits going to the state in the form of taxation and royalties is far higher in South Africa than in Canada. In 1974, for example, the absolute amount was some R812M or over $1.26M (Houghton: 1976, 111).

In the last few years, since the initiation of the upward trend in the price of gold the proportion going to the South African state has been increasing fairly rapidly, by and large at the expense of undistributed profits rather than dividends. The absolute amount going to the government increased by a factor of six between 1970 and 1974 (State of South Africa: 1977, 68). Gold is thus an important element in the budget of the Republic.

Due to the structure of ownership most dividends from the industry are paid within the country. The implications of this for our analysis is that this income is fed directly back into the South African income stream and thus helps maintain and expand the status quo.

Undistributed profits are generally employed to expand and further mechanize the production process thus also facilitating the maintenance of the status quo. In fact the available evidence would seem to suggest that the longer term effects of current strategies will be to reduce the dependence on unskilled labour thus contributing further to the unemployment problem among blacks.

The proportion of profits going to the government help to maintain and expand the repressive apparatus of the state. A large proportion of government expenditures has been devoted to defence and infrastructural developments while a relatively small proportion has been devoted to things of primary consideration to the African population such as Bantu education, homeland development and health services. Table 4-3 illustrates the situation for the same period.

The Rationale Used by the Mining Companies for Low Wages

The Backward Bending Supply Curve of Labour

The general argument used by the mining companies to defend their ultra low wage policy was that black workers were target workers, i.e. they would only work until they reached a certain target level of

TABLE 4-3. Expenditures on Defence, the Homelands and Bantu Education, 1969/70 to 1978/79, RSA(RM).

Fiscal year	Defence	Homelands	Bantu education
1969/70	275	133.5	49.9
1970/71	256	170.2	73.5
1971/72	315	208.3	79.0
1972/73	342	180.9	74.3
1973/74	480	233.7	93.0
1974/75	695	321.6	131.4
1975/76	1043.5 (15%)	408.1	151.0
1976/77	1047.6 (17%)	-	-
1977/78	1711.7 (19%)	-	-
1978/79	2280 (23%)	-	-

Sources: (i) Assorted editions of Survey of Race Relations in South Africa, 1970-1978.
(ii) Gann and Duignan: 1978.
(iii) Africa, South of the Sahara, 1979-1980, London: Europa Publications, 1979, p. 935.

TABLE 4-4. % Distribution of Profits, South African and Canadian Goldmining, 1967-1976.

Year	Dividends		Taxation		Undistributed	
	Canada	S.A.	Canada	S.A.	Canada	S.A.
1967	66	38	8	38	26	24
1968	57	37	9	36	34	27
1969	55	37	7	35	28	28
1970	150	41	7	38	-55	21
1971	N/A	36	N/A	42	N/A	22
1972	N/A	33	N/A	45	N/A	22
1973	35	32	25	50	40	18
1974	40	35	36	48	24	17
1975	46	N/A	34	N/A	20	N/A
1976	134	N/A	42	N/A	-77	N/A

Source: (i) Corporation Financial Statistics, Queens Printer, Ottawa, 1967-76.
(ii) State of South Africa: 1977, 65-71.

income and then they would stop. Thus, increases in the wage rate would have the effect of constraining the supply of effort by the African labour force. Theoretically, the Africans were agriculturalists from the native reserves who were merely seeking to supplement their incomes by working on the mines.

It is the contention of this section that the argument is and was unsound both on theoretical and practical grounds and served as little more than a smokescreen for the super exploitation of black labour.

In the first instance black workers are locked into employment by means of the contract system with breaches of contract punishable under the Master and Servants Law until 1974. The result is that in the short run workers presenting themselves for employment would not be able to sop before the contract expired whether or not their target incomes have been exceeded. As Wilson, Van der Horst, Horwitz, *et al*. point out there was plenty of evidence of money consciousness among African workers even in the earliest days of goldmining (e.g. Wilson: 1972,75,76; Van der Horst: 1971, 137 ; Horwitz: 1967, 173). The implication of this was that in subsequent periods there would be no reduction in the supply of effort due to the increase in wages.

All available evidence seems to suggest a rising supply curve of labour. The most recent evidence to support this hypothesis is the recent recruiting drive within South African which was predicated on increased wages and caused a large increase in the quantity of labour offered. On the other hand, at times when wages were cut such as at the time when recruiting was fully monopsonized there was difficulty in procuring a sufficient labour force (Wilson: 1972, 4). Furthermore, wage competition from other industries at times also led to shortages of labour in mining, e.g. during World War II the president of the Chamber of Mines had the following to say: "the glamour of high rates of pay in other industries ... adversely affected ... recruiting efforts" (Wilson: 1972, 75).

The gradual impoverishment of the Bantustans, partially as a result of the migrant labour system consolidated by the mining industry, removed any justification there might have been on theoretical grounds for a low wage policy. When one goes further and compares the total African wage bill to profits it becomes clear that the companies at the very least possessed the ability to pay African workers substantially more.

Finally, even though the supply curve of any individual labourer might be backward bending, it does not follow that the supply curve to the industry will be. As we have seen, the industry faces a rising supply curve of labour and was able to persist in its policy of low wages as long as there were severe curbs on the mobility of black labour and recruitment could be monopsonized and extended to embrace all of Southern Africa.

A more rational explanation for the low wages is in terms of cost minimization/profit maximization calculus. In short, as long as labour could be procured by various means and be subjected to various controls they could be exploited to the full. In order to maximize profits, the mining companies paid their African labour force sub subsistence levels of income. At the most general level this is due to the relative positions of these two actors in the political economy of South Africa.

The Opportunity Cost of Labour

Another general explanation that has been advanced for the low wages paid to African goldminers is that they have a low opportunity cost, i.e. they have few, if any alternate income producing activities which would yield an income comparable to what they are earning in goldmining. Thus a supply would be forthcoming at these low wages since there was no alternative.

It is the contention of this section that while this may have been the case in the initial stages of goldmining, over time they were deprived of a means of subsistence and prevented from entering other occupations so that their opportunity costs were kept artificially low with the aim of minimizing labour costs in the goldmining industry and the economy as a whole.

Prior to the advent of the goldmining industry, the African population, though not wealthy was relatively self-sufficient.. With the advent of the industry and the associated increase in related economic activity there was a high level of demand for African workers. However, workers were not forthcoming from among the Africans for they were not in need. They were, in general, engaged in small scale agriculture and their opportunity costs, though low, were not so low as to attract them spontaneously to goldmining. Various legislative and practical measures had to be taken in order to produce a workforce.

It was a result of trickery, treachery and coercion that a labour force was eventually forthcoming. Following the growth of the goldmines up until the period of union, many Africans were successfully producing for markets or becoming relatively prosperous in sharecropping and other agricultural activities. Their opportunity costs were thus rising.

Measures such as taxation, debt inducement, etc. produced many labourers from the subsistence sector. The Land Act put the finishing touches to any upward trend in opportunity costs for Africans in commercial agriculture.

Over time, as other sectors of the economy began to develop and require African labour, the mining industry responded by expanding its recruiting efforts outside the country. Thus, a pool of excess labour sufficient to suppress opportunity costs and wage rates was secured. Over time, this situation has been perpetuated by various measures designed to reduce the economic viability of the homelands.

It is interesting to note that Afrikaner agriculturalists in the early days of goldmining, who were also primarily subsistence producers, upon employ by the mines were paid at wages far above their opportunity costs. This suggests a differentiation of the labour force along racial as opposed to purely skill lines. This lends support to the hypothesis of an alliance between white labour and the mining companies with the aim of minimizing the cost of black labour and thus total costs.

The upward pressure on wage rates these days reflects the effect of exogenous variables such as uncertainty about foreign sources of labour, international political pressure, domestic strike action and other forms of civil disobedience.

The mining companies and the government have thus been able to circumvent the market and manipulate socio-economic variables in such a way as to depress opportunity costs and deny Africans a living wage. The low opportunity cost of labour is a description of conditions, not an explanation of those conditions or for the low cost of black labour which is essential for an understanding of the situation.

How Increases in Black Real Wages Affect the Hypothesis

As you will recall, the hypothesis, as outlined in Chapter One is that the wage position of black South Africans is a function of their position in the political economy and that this position is a result of a policy of wage minimization instituted by the Chamber of Mines and supported by the government. We have shown how as a result of the policy of wage minimization black wages were for many years under the PDL and how recently real wage increases for blacks have improved their relative wage position. What remains to be done is to account for this improved position in terms of the hypothesis.

Very simply put, the recent improvements in the black real wage position can be accounted for in terms of an improvement in their position in the political economy. This improvement is due to several factors all of which have been mentioned if not discussed before.

In the first instance the change in focus of the economy from mining to manufacturing has had some implications for black wages. Because of the need for larger markets and a skilled workforce, there has been heavy pressure from the manufacturing sector to expand the domestic market via increasing black wages and to ameliorate the skilled labour shortage by training blacks. In this way it is hoped that manufacturing can increase its efficiency and ultimately be able to compete on world markets. Particularly, in view of the fact that the country's leading foreign exchange earner, gold, is a non-renewable resource.

In this regard it is significant to note that much of the profits earned by the groups in goldmining are being invested in manufacturing. In addition, manufacturing is the new focus of foreign investment.

In the second instance, unrelenting pressure from many segments of the international community for the abolition of apartheid has forced the government to make concessions which try to put a human face on apartheid. These concessions include the removal step by step of petty apartheid, improvements in black wages and de jure recognition of the right to organize into strictly controlled trade unions. It must be understood, however, that many concessions have been promised and very few delivered.

These concessions have a joint purpose: (i) to defuse international concern about apartheid and (ii) to try and pacify the black population by piecemeal concessions, some of them economic. In no case is the system of apartheid itself in danger of being conceded away.

Further, international corporations dealing in South Africa have been pressured by their home governments to ensure that blacks get paid a minimum not less than the PDL. Investigations by most of the major western countries have resulted in the institution of guidelines such as the Sulivan Code, for companies operating within South Africa. Many of the wage increases that have been evident throughout the economy reflect an increase to the PDL and not much beyond.

South Africa has a very definite image problem which when translated into practical terms shows up as reduced capital inflows, reduced trading opportunities and ultimately a reduction in potential income.

In the third instance, domestic pressures in the form of strikes and civil disobedience have led directly to wage increases. In the wake of the mass strikes, Soweto, the murder of Steve Biko and the information scandal the country has been in a state of flux. Africans have learnt that they have bargaining power and are more prepared than ever to use it. With the whole world watching the government is more constrained than ever in the range of actions it can take. More and more the regime has been forced to concede higher wages.

The effect of the information scandal and subsequent attempts to muzzle the press even further has been the consolidation of a split in the ranks of Afrikaners into verkramptes (conservatives) and verligtes (liberals). With the verligtes currently at the helm and a growth in the ranks of the opposition parties there is a distinct liberal basis in the recent formulation of policy. Part of this bias manifests itself in the form of a tolerance for higher black wages and other concessions which the verkramptes would deny.

All of the above adds up to an improved position for blacks in the political economy and subsequent improvements in the wage position. Given the high price of gold, the Chamber of Mines has been able to implement significant increases in the wages of its black employees without damaging profits significantly. Wage minimization now entails costs that previously would have been social costs. The gap between private and social costs has thus narrowed to some extent in this case.

Towards a Model of Wage Determination in the South African Economy

In Chapter One, we examined two alternate approaches to wage determination. The neo-classical approach emphasises market forces as the primary determinants of wage rates within the economy. In this model, the government is a facilitator and supplementer but does not play a leading role. We noted that in the South African case the government plays a leading role in directing the economy. A free market for African labour does not exist. Instead, it is allocated via labour bureaux and mobility between jobs is virtually zero. This violates the underlying assumptions of the neoclassical school and necessitates an approach in the realm of political economy if one is to understand the mechanisms of the economy.

We also examined the Marxist/structuralist approach which views wage determination as a function of the strength of the capitalist sector vis-a-vis the labour force. In the South African case a "white alliance" has ensured the super exploitation of the African working class. This approach integrates political and sociological forces into the model giving it the advantage of being closer to reality. The result in the goldmining industry has been one of a highly concentrated and economically powerful industry confronting a weakened labour force with very little bargaining power. This has found its expression in the monopsonistic recruitment of African labour via the migrant labour system and the unilateral determination of wages by the Chamber of Mines.

Externally imposed demand conditions for gold and external sources of capital, over which South Africa has little control, provide broad constraints within which wage determination can take place in the South African goldmining industry. Within the industry, the supply of and demand for labour has had little if anything to do with wage determination. Shortages of labour have, for example, traditionally been met through an expansion of recruiting activity rather than through wage increases. Manipulation of economic variables has replaced the free interaction of supply and demand. Thus, it is the proposition of this thesis, that it is the balance of political power within the South African political economy which sets the framework for the determination of wages in the goldmining industry.

In order to develop the model we first need to examine some of the variables which dominate and thus determine the nature of the South African political economy. It is the interaction of these variables which ultimately determine the level of wages and changes in the wage rate. These variables will be discussed in the following order: international capital, national capital, the state, white labour and African labour. Subsequently, they will be integrated into a model for wage determination in the South African economy.

International Capital

A discussion of the role of international capital in the South African political economy is indispensable for any understanding of developments within the economy, particularly as they relate to the determination of wages. In general, this is true because of the nature and extent of the links between South African and the international economy.

As noted earlier, these links were consolidated with the onset of the mining revolution. British capital played a decisive role in the transformation of the economy from a pre capitalist to a capitalist mode of production. It was also responsible for introducing and institutionalizing the relations of production characteristic of the South African economy today. In the first half of this century British capital played a dominant role in the South African economy. In the postwar period this dominance has been reduced by two factors: (i) the growth of a domestic capitalist class and (ii) changes in the international economy which led to a greater internationalization of capital and is reflected in changes in the sources of international capital. Over this period the share of trade and investment accounted for by the

United States and Western Europe grew much faster than that of Great Britain.

The South African economy presents us with a classic example of neocolonialism. Whereas political power was decentralized in 1910, economic power remained in foreign hands. Within the international capitalist division of labour South Africa has been assigned the role of producing gold and other primary products for the world market and receiving in return capital equipment and technology vital for its position as a regional representative of international capital. Because of its neocolonial status South Africa suffers from many of the chronic problems facing developing economies. These include persistent balance of payments deficits, deteriorating terms of trade and a sharply differentiated dual economy. Relative to other developing economies, however, South African development has rarely been seriously constrained by a shortage of capital. This is in part due to its abundance of gold and other minerals and in part due to its system of internal colonialization which allows it to transfer the burden of dependency onto the African people as a whole. Through this system, surplus value can be effectively maximized and the proceeds shared between the domestic white sector and international capital.

As noted earlier, the volume of investment in South Africa has increased immensely in the postwar period. More important, however, is the timing and nature of those investments. As First, Steele and Gurney put it: "Its strategic role has been even more important than its volume. At each stage of the country's development since the last war, foreign investment has provided the capital equipment and technological skills which have enabled South Africa to build up new sectors of its economy. In the 1940's and 1950's the key growth sector was engineering, and British companies exported the capital, the machinery and the knowledge which gave South Africa this sector. Other firms went into partnership with the government to provide South Africa with a modern textiles industry. On the base of the explosives industry British technology helped to build up a sophisticated chemicals sector, and also moved into food processing and canning, chiefly for the export market. In the 1960's the sectors expanding most rapidly were the production of motor vehicles, and automobile accessories, and oil prospecting and refining, in which American corporations played a leading role. Foreign capital has been crucial to South Africa's economic development because of the technology and skills it has brought with it. In computers, electronics, chemicals and even nuclear energy this technological bridge building is linking South Africa with the latest western trends" (First, Steele and Gurney: 1973, 26).

The aims of international capital vis-a-vis the South African economy can be summarized as a continuation and expansion of the surplus value deivable from South African sources. Towards this end the international financial community has been providing substantial support to the South African regime in the form of bank loans which has been instrumental in financing South Africa's growth as a military and industrial power. Particularly noteworthy was the action of these banks in saving the government from a monetary collapse in the wake of both Sharpeville and Soweto. In addition, these banks have been providing the state with the necessary capital to extend its infrastructure, increase its defence budget and cover its balance of payments deficits.

In sum then, international capital relies heavily on South Africa for gold, minerals and to a lesser extent markets. It also controls a large proportion of the most strategic portions of South African industry. Legassick and Hemson, for example, refer to some estimates which credit foreign investments with control over 80% of productive capacity in the private sector (Legassick and Hemson: 1976, 1). The price of such co-operation and control is the loss of some degree of independence to international capital and the greater ability of international capital to pursue its aims vis-a-vis the South African economy. This has profound implications for the determination of wages in the economy.

National Capital

A discussion of the role of national capital in the South African political economy is important because of the strategic political position it occupies. Inasmuch as international capital and national capital may have different aims it becomes important to evaluate the position of national capital in the political economy.

National capital developed as an offshoot of the development of mining and the subsequent urbanization which led to the demand for many products sky-rocketing. Beginning from a predominantly agragrian base it has over time expanded into all sectors of the economy.

Much of the growth of national capital has been the result of active government policy. In fact as Magubane puts it: "the extent to which the Afrikaner bourgeousie has been forced to use the state is symptomatic of a weak position in the political economy and the strong role of foreign capital". (Magubane: 1979, 164).

In the pre-war period the PACT government provided the means for the expansion of national capital into the industrial sphere. In the post-war period, particularly since 1948, the expansion of national capital has been even more spectacular. This has been a direct result of the state action in the form of contracts, joint ventures, etc.

In the early going economic nationalism as manifested in the formation of various organizations for the purpose of accumulating national capital and culminating in the National Economic Conference in 1939 was an important factor in the process.

Accompanying this growth in national capital has been a tendency towards greater centralization in the form of large scale agriculture, very large commercial concerns, etc. which has meant that national capital has been able to compete on almost equal terms with international capital in a number of spheres.

The result of this is that national capital now shares with international capital an extreme vulnerability to industrial unrest. Whereas previously they differred over the means of achieving industrial peace they now both regard increased wages and better working conditions rather than teargas and bullets as a more efficient long run strategy. This accommodation with international capital is viewed by more orthodox Afrikaner businessmen as evidence of a sellout to international capital.

In sum, national capital has a large amount of political leverage as a result of its position as an offshoot of deliberate state policy. Inasmuch as at any given moment the interests of national capital, international capital may differ, national capital can act as a restraint on the freedom to act of international capital.

The State

In recent years, various theories have been advanced with respect to the role of the state in the capitalist economy. It is generally agreed, particularly in light of the rapid expansion of the public sector following the "Keynesian Revolution", that an understanding of the role of the state is essential for any clear analysis of developments in the economy.

In discussing the role of the state in the South African political economy I will adapt some of these theories to the South African context.

In general, the state is held to be responsible for the reproduction of capitalist relations of production within the economy. This involves safeguarding the means of production against the legitimate struggles of the African labour force. Because the government's rule has not been legitimized by the majority of the population and since the government's programmes have been contrary to the interests of this majority it has had to use coercion to achieve this end.

In South Africa, the state is also an implementer of programmes designed to extend and increase the generation of surplus value within the economy. Towards this end the development of an infrastructure facilitating the application of new technology and the extension of the economy to include more productive capacity are prime targets.

A third function of the state is to attempt to legitimate what is happening in the economy by attempting to socialize various groups in the economy to accept their roles within the economy. This involves attempting to instill an ethnic rather than a national or class consciousness within the population. If, for example, Africans can be made to accept the idea of homelands then discontent can be channelled to the homelands and Africans can be made to accept reforms rather than structural changes. Furthermore, by educating whites to believe that their futures are dependent on not incorporating blacks within the power structure the government is able to continue indefinitely with its policy of dividing the working class along colour lines.

In addition, the state in collaboration with international capital, is responsible for improving the image of the economy abroad.

Another view of the state is as a mediator in disputes between different factions of capital. This involves among other things disputes about how the surplus is divided and about how best to maximize the surplus.

Over the years, since early in the century, there have been numerous disputes between mining manufacturing and agricultural interests. At various times different fractions of capital have come to dominate the state and impose solutions consistent with their best interests. In the current period as capital has become more concentrated and potential threats to the system as a whole have grown dramatically the interests of the various factions of capital have tended to converge. Magubane, for example, describes the current state structure within South Africa as a functional alliance between international and settler capitalism (Magubane; 1979, 192).

In sum the state can be viewed as a co-ordinator and implementer of programmes designed to ensure the reproduction of racial capitalism within South Africa for the purpose of maintaining and extending the scope for the extraction of surplus value within the economy.

White Labour

By virtue of their class position, i.e. alienated from the means of production and having only their labour power to sell, one might in the abstract, expect white labour to be an important element in the struggle between labour and capital. However, as described early, customary and statutory regulations have combined to provide them with a privileged position in the economy.

This leads to several possible contradictions. On the one hand, market forces alone cannot guarantee any privileges based solely on colour so that they are dependent on the state to maintain their privileged position. The state in turn is dependent on white labour for electoral support. White labour can act collectively to pressure the state to maintain its privileged position. This introduces a conservative bias into the political economy.

At the same time, the state has to cater to the needs of the capitalist sector for stable industrial relations and larger markets. To the extent that this can only be achieved through higher wages and an escalation in the labour hierarchy for blacks it undermines the position of white labour.

The white labour force lives in constant fear of being undercut and replaced by black labour as a concession to capital, particularly as the struggle by black labour intensifies.

Traditionally, the ploy has been to buy off white labour through generous settlements. There are now very definite limits to this kind of manœuvre. In the past, part of the reason for the extent of the wage gap was that black wages could be effectively suppressed and white wages and profits could be high simply because black wages were low.

In an era of rapidly rising black wages this gap would be more difficult to finance and would act to reduce profits.

In addition, international capital and the state are under intense pressure to ensure at least a symbolic narrowing of the gap between the wages and conditions of black and white workers.

Inasmuch as this acts to undermine the alliance between white labour, capital and the state it poses several interesting questions, e.g. what are the implications of this weakened alliance for black labour? Also, what future course is open to white labour if this trend continues? The ramifications of this are potentially revolutionary as the struggle of black labour continues.

Black Labour

As the position of black labour in the political economy of South Africa has been discussed earlier at this stage we will merely summarize developments in the postwar period and analyze the implications for our model.

As you will recall, at the end of the war, black labour was well organized, strategically placed in the economy and it seemed as though their trade unions would be recognized. The advent of the Nationalist party squelched these ambitions. After a brief hiatus we saw the emergence of SACTU, the defiance campaign and other forms of overt opposition to the regime. The full force of the state was employed in crushing the trade union movement. By the late 1960's the movement had been all but decimated.

By the early 1970's a combination of factors lead to an almost complete reversal of the situation. These factors were: (i) The sustained efforts of the African labour force to get a living wage resulted in massive strikes throughout the country in the face of extreme violence from the police; (ii) International pressure which had been steadily building up since the war culminated in a hostile international environment for the country and threatened the links with international capital; (iii) Changes in the focus of the economy meant that there was now substantial economic reasons for improving the lot of African workers; (iv) Shortages of skilled labour forced the government to begin seriously considering using black labour in jobs previously reserved for whites; (v) Subsequent events such as the murder of school children at Soweto and Steve Biko in custody made the country the focus of worldwide attention and reduced somewhat the extreme nature of the government's response to industrial unrest; (vi) Developments in the Southern African subcontinent particularly the successful struggles of the MPLA FRELIMO and ZANU/ZAPU for national liberation increased the self confidence of African labour, and the realization of the benefits of collective action. The immediate results of these factors were increased wages and a promise to investigate the industrial relations system for blacks.

In a very real sense black labour has significantly improved its position in the political economy. There is evidence to suggest that this position is going to improve further. In a sense blacks hold all the key cards: (i) their improved economic position translates into political bargaining power; (ii) the homelands are likely to be a double edged sword for the regime. The embittered homeland population, in touch with development in the cities via the migrant labour system and in touch with the ANC through various means are unlikely to be averse to any form of change no matter how high the cost; (iii) the growing realization by blacks that they hold the key to the country's prosperity and that collective action is the means to achieve their ends. In sum, the future of black labour certainly looks rosier than its past.

The Model

In general terms, the basic model can be summarized as follows. Within the South African political economy, wages are determined by the interaction of the major actors within that political economy. Sectoral wage determination is a function of the relative strengths of the actors within each sector. Within the goldmining industry, international capital has been the dominant actor and wage determination has thus been consistent with its general prerogatives. Diagram 4-A summarizes the general situation.

Here we see that international capital through its direct involvement in the organization and management of the industry set up structural conditions such as the migrant labour system, the monopsonistic and foreign recruitment of labour which allowed for the "super exploitation" of African labour.

Through its influence on the state, particularly in the early going, it was able to press for a legal framework which severely restricted opportunities for African employment and capital accumulation thus rendering Africans "free" to sell their labour to mining recruiters. In this way, it could effectively manipulate the supply of labour so that in general terms a margin of safety existed which allowed it to keep wages low. In the event of shortages of labour, the group system enabled it to deal with these shortages collectively through expanding recruiting rather than raising wages.

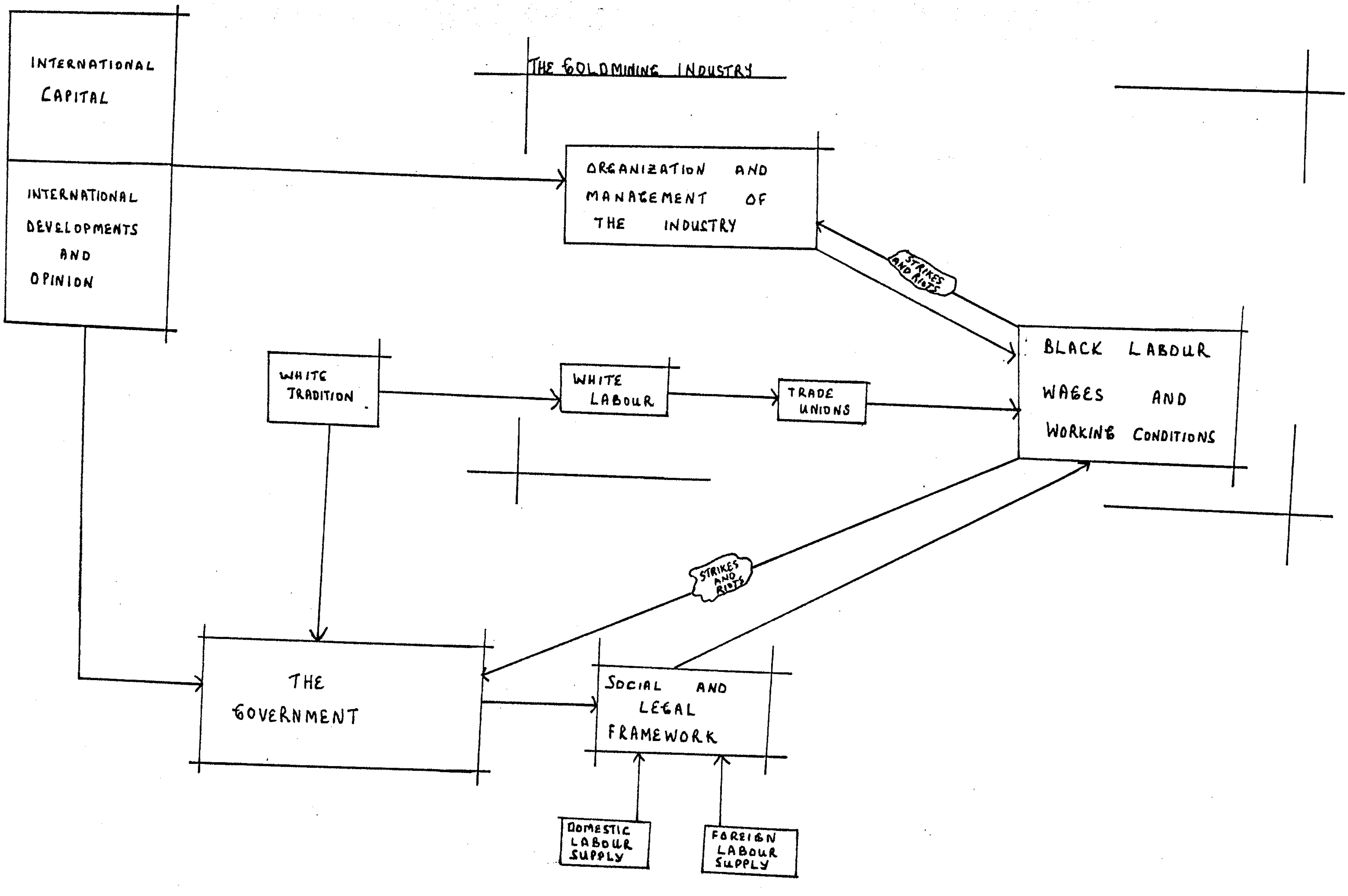

FIGURE 4-1. WAGE RATE DETERMINATION IN THE SOUTH AFRICAN GOLDMINING INDUSTRY

In the period of the PACT government many of these measures were reinforced and an alliance of convenience was struck with white labour. In the postwar period, the trend has been towards a convergence of interest between national and international capital so that the effective "all white" alliance against African labour could be continued and wages kept low.

The effect of rampant Afrikaner nationalism and white worker solidarity has been to curtail the demand for African labour through trade union and government action. Thus, if one could conceptualize an equilibrium wage rate based on the relevant supply and demand parameters it would certainly be far below what would have been the case in a more "free" market environment. It is the conscious and blatant manipulation of these economic variables through political and other means which have ensured this low level equilibrium wage. Feedback from the African labour force has until recently been contained by repressive action.

In general, the outcome of the various interactions shown in the diagram depends on the relative strength of the arrows. This is a fluid situation which can change with changing conditions in both the national and international environments.

It is argued that the postwar period can be divided into two distinct phases. The first phase extends roughly from the end of the war to approximately 1973. During this time, international capital was able to impose with minimal restraint, a set of wages on African labour consistent with its aim of maximizing short run profits. African labour was unable, for various reasons, to respond in a way which had much influence on the process.

The state acted as a guarantor for international capital, enforcing its wage regime on African labour. During this time the state, through various means, also moved to bolster the position of national capital and white labour. The growth of national capital and the improved position of white labour did not significantly hinder the ability of international capital to have its way vis-a-vis the African labour force. Shortages of skilled labour were met through employing Africans in more highly skilled jobs at lower than white equivalent rates of pay. In order to remove demand constraints white labour were effectively bought off through higher wages.

As long as these arrangements provided mutual benefits an alliance of sorts could be forged between national capital, international capital, the state and white labour against the interests of African labour thus obscuring any possible conflict between white labour and the mining companies and preventing any kind of alliance of interests between white and African labour.

In the second (post 1973) phase, widespread and severe industrial unrest along with other factors discussed earlier led to an improved position in the political economy for African labour. This forced international capital and the state to take a longer range view of things. In addition to profits, security of access to the source of surplus value became a key consideration. This led to greater direct and indirect African influence on wage determination and improved returns for African labour.

Inasmuch as this threatened the position of white labour, it weakened the overall "white alliance". This has been reflected in an unprecedented (in the postwar period) increase in white union militancy over the period. Latent cracks in the apparently monolithic white facade began to appear as a debate took place over the proper way of incorporating changes in the political economy.

The underlying dynamics of the postwar period can thus be summarized as follows: (i) a growing interdependence between the state and the international capital has reduced the scope for independent action by the state; (ii) a growing convergence of interest between national and international capital This has entailed the adoption of some of the aims and values of international capital by national capital; (iii) the growing power of African labour during the last decade; (iv) growing insecurity on the part of white labour. These dynamics have led to a position where national capital, international capital and the state have sought industrial peace through piecemeal improvements in the wages and working conditions of African labour despite vigorous resistance from white labour and other conservative elements in the political economy.

Wages are higher in goldmining than in agriculture because of the more decentralized nature of agricultural activity which makes it easier to control African labour. In addition, the effective lack of alternative employment opportunities particularly given the influx control laws which in essence bar agricultural workers from taking employment in other sectors makes it difficult for farm workers to flex their collective muscle. Wages are lower in goldmining than in manufacturing because workers in manufacturing are less subject to controls than workers in either agriculture or mining. In addition, recruitment is not monopsonised nor is there extensive foreign recruitment for the manufacturing sector.

The general conclusion that we can draw from all of the above is that political power is an important means of determining the distribution of income, particularly in a state capitalist society like South Africa. Only by organizing collectively and challenging the centres of economic and political control can African workers hope to earn a wage above the subsistence level, let alone obtain a fair share of the returns accruing from their labour.

CHAPTER V

IMPLICATIONS FOR THE SOUTH AFRICAN ECONOMY

Introduction

It has been argued in the previous chapter that the system of wages in force on the goldmines derives from the way in which the social system has been structured. In this chapter we analyze the implications of that structure for the economy as a whole. Inasmuch as the gold-mining industry represents a microcosm of the economy as a whole the discussion will be carried on in general terms with specific references to the industry where required.

The basic argument that will be made in this chapter is that the prevailing social structure has over time led to an impasse characterized by shortages of skilled labour, widespread and enduring civil unrest and international condemnation. An attempt will be made to evaluate the government's response to this impasse in the context of the constraints within which it operates. The argument will be made that the scope for meaningful change within the present structure of economic and political control is severely limited. Alternate solutions represented by the ANC and Black Consciousness movement will be analyzed and their relative chances of success evaluated.

To assess the general impact of the system of wages on the economy, we need to examine the extent to which the institutional basis of that system distorts the normal functioning of that economy. The discussion should encompass the entire institutional nexus on which the system is based. It should thus include things like the impact of the migrant labour system, the impact of monopsonistic recruitment by the Chamber of Mines, problems inherent in sharply differentiated wage systems not based on productivity and the social costs of the system.

It should be made clear from the start that although it is the basic proposition of this chapter that, at the overall level, gross inefficiency has been a major characteristic of the South African economy and that "increases in output have been obtained through more extensive rather than intensive use of resources" (CXT*, RSA: 1972, 379), the system has until recently been brutally efficient in securing the economic interests of the white capitalist sector of the economy. To the extent that even this modicum of efficiency is in jeopardy now, economic planners in South Africa are being forced to re-evaluate the entire basis of their planning. However, their scope is severely impeded by the current political framework which precludes equal opportunities for participation in the economic and political processes of the country.

Inasmuch as high growth and profit rates have been a perennial feature of the South African economy, it would seem to suggest a high level of efficiency. When one examines the basis for those high rates of growth, a very different picture emerges. That picture is one of a grossly inequitable and inefficient system propelled by extra economic forces.

The migrant labour system has been central to South African economic development. Yet, inherent in the system is a high degree of waste and inefficiency which has led to opportunity and social costs far exceeding private costs to employers. These costs have by and large been borne by the African population as a whole, particularly those in the homelands.

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*Republic of South Africa, Commission on the Export Trade

In what follows the effect of the migrant labour system on resource allocation in South Africa will be considered. In addition, some of the pressures for changing the system will be discussed.

The most obvious consequence of the migrant labour system as it is practiced in South Africa is the high level of quantitative waste it implies. In 1955, the Tomlinson commission estimated the availability of 600,000 man years of labour which were not being applied economically as a result of the migrant labour system (Houghton: 1976, 92). Houghton extended this estimate to include Africans from outside the Republic and arrived at a figure of one million man years (Houghton: 1976, 92). If this figure were to be adjusted for the increase in the migrant labour force since then it would likely be double Houghton's estimate. If one were to add to these figures some measure of the unemployed, the under-employed and low activity rates (Lemon: 1976, 42), a graphic illustration of the extent of labour under utilization in the South African economy would emerge.

To this waste one should add the tremendous cost involved in transporting migrants to and from white areas at either end of the contract. The opportunity cost of this form of labour deployment with its large diversion of resources to non-productive activities is obviously very high.

A fundamental objection to the migrant labour system is that it inhibits the acquisition of skills, essential for increasing productivity. On the goldmines, for example, the average work life for Africans is approximately half that for whites (Wilson: 1972, 137). This, combined with the segmented nature of employment inherent in the system, drastically reduces the incentive to invest in training the African worker. Since Africans form over 90% of the workers on the goldmines this lack of training introduces a conservative bias away from the introduction of more sophisticated technology. It can and does lead to low wages which result in dissatisfaction and disruptions in production. The Mine Riots Commission in its report following disturbances at the Deep Levels Mine in Carletonville, concluded that the migrant labour system was at the root of the problem (Callinicos and Rogers: 1978, 86).

The implication of the migrant labour system for the individual employee is that in the course of his lifetime he may be employed in several different jobs with many periods of unemployment in between. This high level of labour turnover combined with high levels of unemployment among Africans should be viewed in the context of growing shortages of skilled labour in the economy which act as bottlenecks inhibiting growth.

Three general arguments can also be marshalled against the system. In the first place it results in wages so low as to severely circumscribe the domestic manufacturing sector. If manufacturing exports are to be increased to replace declining gold reserves a stabilized, better trained and better paid African workforce is necessary so that markets can be expanded sufficiently to reap the benefits of economies of scale (see CXT, RSA: 1973, 383). A second argument made by Houghton and other liberal economists is that the social costs of the system are too high (e.g. Houghton: 1976, 91-100). They argue that the level of poverty, family disintegration and crime engendered by the system is morally indefensible. Furthermore, if these problems are not dealt with they will undoubtedly lead to widescale social unrest. The third argument, propogated by more conservative critics of the system is that it has failed in its socio-political function of separating the races. Whereas Africans are economically dependent on "white South Africa" the reverse is even more true. Within the white sector Africans outnumber whites and the gap is growing.

The question then becomes, if all of the above is true then why has the migrant labour system continued for so long and more specifically why is it still in place today? The answer for the individual employer is simply that the benefits of the system such as low wages and lack of social overhead expenses have outweighed the costs such as lower productivity. At the national level the system is part of an overall system of social control which allows the ruling oligarchy to retain political and economic control.

As a result of the migrant labour system, the productive potential of the economy, particularly given the wealth of resources, far exceeds the actual level of production.

The Monopsonistic Recruitment of Labour

The monopsonistic recruitment of labour by the Chamber of Mines has had a distorting effect on the overall cost and distribution of labour within the South African economy. This effect is important because of the dominant position of goldmining within the South African economy during its formative years. It will be argued that, on balance, this effect was a negative one.

Mining derived a cost advantage over the other sectors excluding agriculture through two distinct mechanisms: (i) it avoided intra-sectoral competition for African labour by establishing and policing uniform wage rates and (ii) by conducting extensive recruiting campaigns abroad it was able to secure for itself the benefits of an increased and thus cheaper labour supply. There were spillover effects inasmuch as the overall supply of labour was increased. However, the primary benefits accrued to the mining sector largely because of influx control measures which directed jobseekers to mining and agriculture.

The net result of this was that higher profits could be made in mining than in other sectors. It thus continued until relatively recently to be the major focus of private investment. The benefits from the development of mining have to a large extent accrued abroad. The exports of gold, other minerals and raw materials combined with the outflow of profits and dividends have been the conduits for this process. Government taxation and redistribution policies have helped extend the manufacturing sector but have done little to overcome the structural cost unbalance between the two. In fact, the expansion of the manufacturing sector was accompanied over time by measures such as the Civilized labour policy, the Apprenticeship Act and Job Reservation which had the effect of increasing wage costs in manufacturing relative to those in mining.

In the absence of monopsonistic recruitment, _ceteris paribus_, there would likely be higher African wages in both mining and manufacturing. The result of this would have been greater markets for the manufacturing sector which could have improved the competitive position of that sector and increasing the domestic demand for raw materials. More of the benefits of growth could thus have been retained domestically.

With monopsonistic recruitment, lower wages resulted in smaller markets and a substantial reduction in the social welfare of the African population. Both of these factors have in their own way acted to impede efficiency.

The Effect of Differential Wage Scales

The first thing to keep in mind when discussing this issue is the extreme nature of wage disparities in the South African economy when compared with the industrial nations of North America and Western Europe. Whereas the ratio of unskilled to skilled wages in these regions have been in the region of 1:1:5, we have seen how in the goldmining industry the comparable figure for 1977 was 1:8 having declined from a peak of 1:21 in the late 1960's (See Table 3-1).

The general effect of this is the co-existence of an impoverished African labour force with an affluent white labour force. The net result of this is to reduce potential consumption and aggregate demand to a low level. Whereas Africans have little or no money to spend, whites tend to have an abundance of it and a large proportion of it inevitably leaks into savings or import expenditures, which has the net effect of constraining the growth and development of the manufacturing sector. This is reflected in the relatively small average size of South African manufacturing concerns.(Houghton: 1976, 128). It is widely held that the size of the market is the main factor preventing fuller benefits from the economies of scale (CXT, RSA: 1973, 383; Houghton: 1976, 129; Lemon: 1976, 56). This derives directly from the distribution of income within South Africa.

The existence of an elastic supply of ultra cheap labour has, as shown before, reduced the incentive to train these workers. In addition, it has severely inhibited the introduction of labour saving technology into the economy. The general result has been low productivity growth in the economy. Between 1964 and 1974, for example, productivity in manufacturing grew at an average of 1.7%/year compared to 2.6% for

Australia, 2.9% for the U.S., 3.5% for Canada, 4.2% for Britain, 5.1% for W. Germany, 5.8% for France and 10.1% for Japan (Collinicos and Rogers: 1978, 69). These findings are confirmed in more detail and for a longer time period in the Report of the Commission into the Export Trade of the Republic of South Africa (CXT, RSA: 1973, 379-381). It appears that while growth targets were met in the economy, this was done through more extensive input of factors of production rather than through increases in productivity (CXT, RSA: 1973, 380). In order to sustain the high growth rates of the past it appears that at least two conditions have to be met: (i) Productivity in industry will have to improve in order to become more competitive and avoid potential bottlenecks in the supply of labour; (ii) Effective demand conditions in the international economy have to be maintained.

Low productivity was less serious during earlier periods of industrialization when the emphasis was on import substitution behind government imposed tarrif barriers. These days, however, when South African firms are hoping to compete in international markets, the nature of technology and scale of investment involved require a much larger domestic market. It is only recently that mechanization has been seriously considered on the goldmines. The combination of a high gold price and insecurity of a labour supply led the Chamber of Mines to recently invest R150M in the area of research and development (Knight: 1977, 127).

The attempted solution has been to mechanize industry and to upgrade the skills and pay of a segment of the African labour force. Through extending production and redistributing a portion of income towards Africans who have a higher propensity to consume it is hoped to reduce unit costs sufficiently to become competitive in international markets.

The necessity for this approach is underscored by the series of balance of payments crises the country has endured since the war. These problems have been alleviated by gold exports and capital inflows but the problem is a structural one and will take changes in the structure of production to solve.

However, attractive mechanization might be in principle, it carries with it some severe consequences in practice, particularly in the South African case. The consequences will tend to increase instability in a country already beset with such problems.

In the first place, due to the high costs of mechanization and the relatively small size of most firms, a high degree of centralization is likely to take place. Inasmuch as a high proportion of the smaller firms are owned by Afrikaner enterpreneurs and a high proportion of the larger firms are owned by predominantly English and foreign enterpreneurs, it is likely to cause trouble for the government. It must be recalled that through the years, particularly after 1948, these firms were the recipients of considerable government patronage. Any shrinkage of this sector will be politically embarassing for the government.

In the second place, mechanization will serve to undermine the position of white labour in the economy. According to Houghton the demand for labour in a modern mechanized economy is in the semi skilled range (Houghton: 1976, 138). There is a growing need for operatives as opposed to skilled or unskilled workers. This is similar to the deskilling process described by Braverman in <u>Labour and Monopoly Capital</u>.

Inasmuch as all whites are neither willing nor able to make the transition to non-productive labour or to become part of an integrated work force there is likely to be staunch resistance on their part to such developments. In fact, white labour union militancy over the last few years have focussed precisely on this problem.

A third and potentially more serious effect is the effect on African unemployment. As one might expect, the available evidence seems to suggest increases in African unemployment concurrent with increases in mechanization (Carter and O'Meara: 1979, 138). The implications of this are that while the size of the market may increase, more people will be outside the purview of the market and poverty and discontent may well increase undermining the whole structure.

The general task of the government is to pacify these divergent groups and integrate them into the mainstream of South African capitalism. It is the proposition of this section that the strategy followed by the South African government will prove to be totally inadequate and will in the longer run lead to greater discontent and ultimately revolution. Underlying the whole question is that relative white prosperity is based on relative African impoverishment. Growing African unemployment has caused massive alienation both within the homelands and in urban centres.

There is evidence to suggest a growing awareness both among employed and unemployed Africans that the struggle for economic and political rights are intimately connected and that nothing less than political power will guarantee them economic rights (Southern Africa: Feb 1980, 17,18). Following Nkrumah's advice, large numbers of them are now seeking the political kingdom.

Social Costs

In a sense, the social costs of migrant labour and the whole supporting network on which the system of wages is built is the most important element in the whole equation, for it reveals the extent to which human values have been sacrificed for partisan economic and political ends. The effect of the system on African social and family structure have been extensively documented (see for e.g. Edwards: 1974). Here a few of the major consequences of the system will be listed and the implications for the economy analyzed.

The first and perhaps most severe effect of the migrant labour system has been its effect on African family structure. Enforced sexual imbalances between urban and rural areas lead to serious problems including large scale prostitution, alcoholism and homosexuality. Under these conditions, family cohesion is hard to maintain. As is generally the case, African children bear the brunt of such disruption. The migrant labour system has also led to the breakdown of the extended family with particularly devastating effects on the old, the infirm and the unemployed.

The migrant labour system also helps to perpetuate poverty and malnutrition in the homelands. It has been estimated that only about 20% of migrant earnings reach the homelands (Jurok: 1976, 65). When one considers the low wages to begin with and the regressing agricultural sector of the homelands it becomes easy to explain the extent of malnutrition there.

If one were to extend this exercise to include the interaction between the African population and the police another whole set of social costs could be inferred from the level of violence directed at the

African people and the effect that this has had on their lives. Aside from the more well known incidents at Sharpeville and Soweto, literally millions of Africans have been arrested, tortured, imprisoned, shot at or hung. The anxiety involved with being black in South Africa has led to high suicide rates among the African population (Meer: 1976). In short, the costs of apartheid in human terms have been staggering.

In the goldmines, the dehumanizing compound system serves to isolate workers from life on the Rand. The heavy regimentation involved has led to widespread dissatisfaction and strikes and riots. The authorities have dealt with these situations by shooting first and asking questions later. Between 1973 and 1976, for example, 162 miners were shot to death during mine riots.

The implications of this for the economy are twofold: (i) an alienated, embittered and desperate African population willing to engage in strikes, civil disobedience and revolutionary violence in order to gain some measure of justice; (ii) a population virtually devoid of any trust in the authorities and suspicious of any programmes initiated by them.

Costs of Enforcing Apartheid

In addition to the indirect costs considered earlier which reflect in low productivity and inhuman living conditions for Africans we need to consider more explicitly the direct costs of enforcing the system of apartheid on which the wage system is based. This is important in terms of understanding and evaluating resource allocation within the South African economy.

Even at the conceptual level one would expect these costs to be quite substantial due to the convoluted nature of the system. When one considers the administrative structure, the legal bureaucratic framework and the range of manifestations of apartheid it quickly becomes clear that a major portion of South African resources is tied up in either implementing, maintaining or expanding the system. Savage, for example, lists thirteen specific areas in which costs of enforcing apartheid arise (Savage: 1977, 300). According to Savage, for 1976/77 the pass laws alone cost some R112M to enforce (Savage: 1977, 299). This was more than the combined budgets of the Departments of Bantu Education, labour and the interior as well as the operating costs of parliament. Although some economists have made estimates of the overall cost of enforcing the system, we will not indulge in this exercise but instead just realize that these costs are very substantial and represent a massive maldistribution of resources.

Another index of the cost of enforcing apartheid is the defence budget. The recent escalation of this budget is precisely due to the hostility with which the system is viewed both domestically and throughout the continent.

Against these factors should be measured what it would cost to properly feed, house and clothe South Africa's African population. The fact that it has not been done to date merely serves to illustrate that the government fears the political consequence of such actions.

It is very clear that the system is top heavy. An inordinate amount of resources are devoted to activities not directly related to production. This situation is clearly becoming less and less tenable.

The Government's Response

The government's response to widespread industrial and civil unrest has been to treat the symptoms rather than the underlying causes. In attempting to deal with growing African unemployment and poverty it has focussed on encouraging growth in the white economy through the rapid development of infrastructure and the promotion of foreign investment rather than dealing with these problems at their source, the homelands. In recognition of the skills shortage in the white economy it has dramatically expanded educational and training facilities for Africans. In recognition of the importance of improving productivity, particularly in the declining phase of the goldmining era, it has encouraged mechanization and improvements in African wages and working conditions. It has not, however, seriously considered dispensing with the migrant labour system nor has it recognized African unions as legal entities or embarked on programmes to develop the homelands. The government hopes that mechanization and higher wages will lead to a class of skilled labour, who in conjunction with professionals, businessmen, and civil servants will have a stake in maintaining the status quo and act as a buffer against the poor and more militant segments of African society.

In order to deal with the political aspirations of urban Africans the government has established Urban Bantu Councils to manage local government functions in the African townships and supplant more popular community groups, like the Group of Ten in Soweto. These councils have no legislative or executive power and are controlled by all white administration boards, appointed by the government. Such boards meet their expenses through African rents and taxes and are resented in the areas they control (Carter: 1979, 119,120). Rather than filling the urban political vacuum for Africans these groups have had the effect of reinforcing it.

At the national level, the government sought to incorporate the political aspirations of Coloureds and Asians through a new constitution establishing a three tiered parliamentary system. Each ethnic parliament is to decide issues of particular importance to its own community. Matters of joint concern are to be discussed in a Council of Cabinets comprising the three prime ministers and eleven cabinet ministers, six White, three Coloured and two Asian. This body is to be responsible for initiating legislation if it can reach a consensus. If a consensus cannot be obtained the issues will be referred to a body known as the President's Council comprised of fifty five "non political" experts for arbitration and advice to the President who has the final say. Under this system, whites still retain complete political control. No provision is made for the incorporation of the African majority who are theoretically represented by their homeland governments (Carter: 1979, 127,128).

The initiatives are proving to be totally inadequate for meeting the needs of the African population. In the first place, these cosmetic economic changes do not hide for Africans the reality of the system of labour exploitation in force inside South Africa. It does nothing to negate or modify the existence of the migrant labour system, nor does it contain any plan for the containment and eradication of poverty. In this system Africans are as far from the centres of economical and political power as ever.

Widespread strike activity and civil unrest in the face of vastly improved wages and working conditions and government promises for improved rights for all non white groups suggest that the government's programme is in trouble. Widespread rejection of the Urban

Bantu Councils and the homelands concept have left a political vacuum which the governments seems powerless to fill. Rejections of the President's Council by Africans, Coloureds and Asians as well as a segment of the white community seems to suggest that this phase of its programme is out of step with the aspirations of the majority. Most importantly now, a high level of solidarity between all the different groups of non whites is putting added pressure on the government to make substantive change. As mentioned earlier, there is substantial evidence to suggest some linkages between trade unions and political groups, precisely what the government wished to avoid.

The government is severely constrained by its mandate. Because of the minority rule situation and the economic framework of the country which relies on the existence of an impoverished and dependent labour force it is unable to make any substantive changes which would satisfy African aspirations. Unless the government acts quickly to restore good faith by addressing the basic aspirations of black South Africans continued and increasing stability and ultimately revolution can be expected.

The government is further constrained by a reduction in its ideological control. This is represented in the white community by the consolidation of the split between the verkramptes and the verligtes. In order to meet domestic and international pressures, the government has over time moved away from a verkrampte to a verligte position. However, the strength of the verkrampte wing is sufficient to impede this process significantly. This split is also indicative of the growing class differentiation within Afrikaner society. The verkramptes represent small scale farmers and businessmen, segments of white labour and the civil service and have a vested interest in maintaining the status quo. The *verligtes* represent business interests, academics and professionals. They wish to see a somewhat more egalitarian version of apartheid featuring more education, higher wages and the amelioration of petty apartheid and poverty.

In the African community this reduction in ideological control is represented by the Black Consciousness Movement. As Gerhart points out, the government miscalculated the motives of the movement and allowed it to develop to a nationwide organization before clamping down on it in the wake of Soweto (Gerhart: 1978, 269). The focus of the movement has been the development of an independent black consciousness based on a more accurate view of black heritage and potential within South Africa. The movement started among the students and later spread to the wider black community through various organizations. Its success is manifested by the high level of defiance directed at the government.

The extreme polarization inherent in the political framework of apartheid and the absence of direct political input into the functioning of the central government by the majority has led to a political vacuum. Over the years this vacuum has been filled by various groups which the government has systematically outlawed. However, outlawing these groups has had the effect of legitimizing them in African eyes and reducing the government's own legitimacy. Driven underground, they still provide leadership for the African masses. What is more, having been denied institutional access to the centres of power they are now developing an approach based on armed struggle. Chief amongst these groups has been the African National Congress (ANC).

The ANC Solution

The ANC was formed in 1912 to voice African concerns to both the British and South African governments.. Of particular importance at the time was the Act of Union (1910) and the Land Act (1913) which severely circumscribed potential African political and economic rights. In the face of severe setbacks to the African population through the years, the ANC continued to press for change through constitutional channels preferring to petition for African rights through meetings, telegrams, delegations, etc.

In the wake of the election of the Nationalist Party, political dissent among Africans was even further discouraged and a period of severe repression ensued. A split developed between the younger, more militant and nationalist youth wing who formed the Pan African Congress (PAC) and the ANC proper. In the wake of Sharpeville both organizations were banned and their leaders exiled or imprisoned. It was at this stage that the ANC realized that the government was intractable with respect to basic African aspirations and that only force could bring it to its senses. It thus began training a guerilla army. The ANC has been involved in sporadic guerilla activity in the north of the country. In addition it has concentrated on the infiltration of cadres into Black areas for the purposes of setting up cells and engaging in political socialization. In the wake of Soweto, several thousand school children fled the country and many of them are believed to have joined the ANC.

The ANC proposes the complete dismantling of the system of apartheid and its replacement with a democratic system of economic and political control. The ANC's principles are contained in the Freedom Charter which starts with the basic proposition that South Africa and its resources belong to all the people. It thus proposes a system of majority rule in South Africa on the basis of one man, one vote. This sytem would ensure a more equitable distribution of the nation's wealth and would over the longer term allow the economy to reach its full potential. Facilitating this transition is the fact that the country has the most sophisticated labour force on the continent and a resource base sufficient to maintain relatively high levels of income and employment.

The ANC enjoys fairly wide support within the country and is in many quarters expected to be the eventual government of the country. Internationally it has been supported by non governmental organizations in the west, the Scandinavian countries as well as by members of the "socialist bloc" and the majority of African countries. All of this begs the question of the likely role of the west in further developments within South Africa.

The Role of the West

Because of South Africa's strategic importance, the western capitalist powers are likely to make every effort to ensure that the country remains within their sphere of influence. Since expediency is often the basis for big power foreign policy decisions, one can expect the countries of the west to continue to support the ruling white regime as long as it is not in serious danger of collapse. This support will take the form of continued diplomatic, trade and financial links. If and when the growing alienation of Blacks begins to be channelled and seriously threaten the regime one might expect the west to call for majority rule in order to ally with the revolution and attempt to forestall the development of a socialist state. This does not mean that direct military involvement of the west is out of the question. Rather, if the trend towards the right in international politics continues, military involvement is likely to be quite possible. If Reagan were elected, Thatcher were re-elected and more right-wing politicians were elected in Europe, the basis for more direct involvement would be laid. However, the enormous threat that this would present to international security would more than likely be sufficient to allow cooler heads to prevail.

Overall Implications

The overall implication of what we have discussed so far is that unless significant changes are made in the political framework of South Africa, the economy has a bleak future with continuing civil unrest, repression, unemployment and general dissatisfaction. At some stage there is likely to be a general flight of capital which would result in a downward spiral of output, incomes and employment and ultimately revolution.

The government is constrained by its mandate for separate development. It has limited scope for increasing African economic welfare and political participation. Yet it is precisely these areas in which African aspirations are centered. To date the government strategy has been to divert the main thrust of the attack by piecemeal economic reforms, limited relaxation of petty apartheid and the establishment of political institutions with no power for Africans thereby sidestepping basic African aspirations.

As conditions change the government may be allowed more flexibility in order to ensure the survival of the nation state in its present form. To this end, the government may attempt a few additional moves such as: (i) increased disbursements for economic development of the homelands to increase employment and alleviate poverty somewhat. Within the present political framework this appears to be one of the irreducible minima. Against this must be measured the degree of hostility among Africans to the entire homelands concept. Some idea of this hostility can be gleaned from the number of homeland leaders who have thus far flatly rejected the idea of "independence" and are committed to working towards majority rule within a unified South Africa. Furthermore, the government is wary of any schemes which might allow resources and economic power to accumulate in African hands and reduce substantially their scope for procuring a low cost African labour supply to service the industries of "white South Africa"; (ii) allowing some sort of stabilized labour force to develop. This appears to be a crucial issue causing a lot of agonizing on the part of white South Africans. It would have to be combined with some sort of higher wages and increased expenditures on housing, health and education. In addition, some form of African political representation would have to be worked out. The government is very much afraid of opening a can of worms. Whites would have to accept a relatively reduced status.

In sum then, one could conclude that in an effort to resolve its current dilemma, the government might well take measures to increase the mobility of black labour and improve living and working conditions for them. Given the internal dynamics of the ruling white oligarchy there are distinct limits to how far these policies can be carried. This, combined with the growing strength and militancy of the African population, make it difficult to see how the government is likely to achieve its aims vis-a-vis the economy. The alternative of increased repression is not likely to be indefinitely sustainable given the geopolitical economic and strategic stakes. Nevertheless, the government's past intransigence, which helped spark international contempt and a guerilla army with widespread domestic support, may force it to follow this route with potentially disastrous results.

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