

# Deconstructing Profitability in the Late Apartheid Period: 1960-1989

Nicoli Natrass

Draft paper for the *Economics of Apartheid* workshop hosted by the South African Economic History Society, Stellenbosch, March 20-22.

This paper deconstructs South African manufacturing profitability in the late apartheid period (1960 to 1989), highlighting the contribution of factor income distribution, productivity and relative prices to trends in the profit rate. We take 1989 as the end of apartheid as it is the last peak year before the release of Nelson Mandela in 1990, which heralded the start of negotiations for South Africa's transition to democracy. Our analysis starts in 1960 because key data are only available from 1960. Earlier, less fine-tuned deconstruction of manufacturing profitability during the 1950s is available in Natrass (1994) and is referred to where appropriate for contextual purposes.

The paper begins with an introduction to why deconstructing the profit rate is of potential interest and the rest of the paper presents the empirical results. It argues that there were different economic factors at work behind trends in profitability, and that Marxist claims about rapid growth under apartheid being based on cheap labour are not supported by the analysis. The analysis also highlights the role of falling capital productivity, a trend which suggests that investment under apartheid was misdirected in significant ways.

## Why deconstruct the profit rate?

Deconstructing the rate of profit is somewhat tedious, so it is worth asking at the outset why bother doing it. If one was an old-style Marxist, the answer would be straightforward: the rate of profit is interesting in and of itself because it is a marker of the health of capitalism. According to classical Marxism, profits are rooted in the exploitation of labour (a high rate of profit indicates a high rate of exploitation) and capitalism contains the seeds of its own collapse: high rates of profit in turn lead to high rates of investment ('accumulation'), which in turn results in rising capital:labour ratios ('organic composition of capital') and falling rates of profit.<sup>1</sup> A long-term trend decline in the rate of profit is thus indicative of approaching doom for market capitalism. History, of course, has not been kind to this theory. Profit rates have fluctuated over time, and capitalism has proved remarkably resilient and adaptive.

Modern day Marxists either reject this mechanistic version of historical materialism, or reformulate it. Scholars working in the 'Social structures of accumulation (SSA)' and 'Regulation' schools of thought accept that capitalism is capable of adjusting to adverse

---

<sup>1</sup> See Marx, 1859: 388-391 for a brief summary statement of this approach to history.

economic trends and restructuring to recreate conditions favourable for accumulation.<sup>2</sup> In their revised version of historical materialism, capitalism goes through distinct periods/waves when social and political institutions (the SSA) initially support growth, but subsequently undermine it (see e.g. Gordon, Edwards and Reich, 1994). In terms of this approach, the rate of profit is a central indicator of the health of the SSA: a rising rate of return means that the SSA is functional for growth; a falling rate of profit implies a shift towards crisis and subsequent reformulation of the SSA to facilitate subsequent accumulation and growth (see discussion in Natrass, 1994: 255-7).

But what if one was *not* working in this long-wave / SSA tradition. Is there any reason, then, to look at the rate of profit in such detail? The answer is yes for anyone interested in growth paths, especially those concerned with distributional conflict and its evolution over time. Marglin and Bhaduri (1990), for example, place distributional conflict at the centre of their growth model by linking the investment decision to the share of income accruing to capital (the profit share). They model investment as a function of both the profit share and the rate of capacity utilisation: the higher the share of income going to capital and the stronger the level of demand in the economy, the higher the rate of investment and growth. The key insight here is that a form of wage-led growth is possible if a rising wage share compensates capitalists sufficiently by boosting demand. In other words, what capitalists lose in terms of over-all income share, they gain in terms of higher turnover such that the rate of return rises. Marglin and Bhaduri call this a ‘co-operative stagnationist regime’. However, if capitalist worry more about profit share when making their investment decision than they care about the level of demand, then falling profit shares will only slow growth. Marglin and Bhaduri call this an ‘exhilarationist regime’.

In terms of this perspective, labour and capital are engaged in a strategic game: labour tries to get as great a share of income as possible without undermining investment; and capital tries to get as great a share of income as possible without undermining demand. As social democrats have long believed (and put into practice in their economic policies) if either labour or capital gets too great a share of income/surplus, then the engine of growth is likely to falter and fail. If wages are squeezed too far, then falling demand will drag down growth and profitability.<sup>3</sup> If profits are squeezed too much, then investment will dry up, employment will fall along with growth. The optimal strategy is thus to ensure balanced growth – or what Joan Robinson called ‘golden age’ growth to describe smooth, steady growth with full-employment (1962: 52).

In a ‘golden age’ growth path, real wages rise in line with productivity and the rate of profit remains constant. Amongst her many colourful alternative growth scenarios, Joan Robinson describes a ‘limping golden age’ as one in which the steady accumulation of capital takes place below full employment, and a ‘bastard golden age’ as one in which the

---

<sup>2</sup> See the edited volume by Kotz, McDonough and Reich (1994) for a theoretical and applied approach using social structures of accumulation.

<sup>3</sup> This, of course, is a closed-economy analysis. In an open-economy, falling demand could be compensated for by an increase in exports.

further accumulation of capital requires a lower real wage, but workers refuse to accept it (Robinson, 1962: 52-9).

Glyn *et al* (1990) use the golden age metaphor to describe the post-war boom in which the advanced capitalist countries experienced rapid and parallel growth of real wages, productivity, and capital stock per worker. In an analysis similar to that of the SSA tradition, they argued that the institutional structures of the welfare state, coupled with Keynesian full-employment policies allowed for a balance between growth in output (aided by techniques of mass production) and purchasing power. The significance of this growth path was that it ‘guaranteed both a roughly constant profit rate, and roughly equal growth rates of consumption and production’ (*ibid*, 1990: 48). In Marglin and Bhaduri’s (1990) framework, a ‘co-operative stagnationist regime’ characterised this period.

For those who find arguments couched in quasi-Marxist SSA terminology or Robinsonian metaphors less than compelling, it is worth noting that exploring the institutional contours of balanced growth in Europe (and its breakdown) can be done in a straight-forward game-theoretic approach. For example, Eichengreen (1996) argues that the institutional framework which developed in the post-war period in Europe was a way of encouraging labour and capital to achieve a relatively ‘low-wage, high-investment’ equilibrium through by managing a set of repeated bargaining games. Cameron and Wallace (2002) also adopt a game-theoretic perspective, but argue that the crucial feature of the institutionalised interaction between labour and capital is the co-ordination aspect (rather than enforced compliance of bargains). They argue that subtle shifts in parameters such as union power and labour’s preference for short-term gains relative to long-term wage growth, could result in a ‘tipping point’ switch from the wage-restraint, high investment ‘knife-edge equilibrium’ to a wage-push, low investment outcome.

In terms of Cameron and Wallace’s explanation, the shift from fixed to flexible exchange rates (with the collapse of the Bretton Woods system) increased union power because the disciplining connection between higher wages, reduced competitiveness and job losses was no longer present. At the same time, oil-shock-induced inflationary pressures increased labour’s preference for wages now over wages in the future (i.e. altered their discount rate). This, coupled with increased international mobility of capital, resulted in a breakdown in the wage-restraint–high-investment bargain. They conclude that the post-war golden age in Europe would have come to an end at some point because it was driven primarily by favourable initial conditions and technological catch-up with the United States, but that ‘the slowdown would have been more gradual had the wage restraint/high investment consensus not collapsed’ (2002: 492).

This story is consistent with that of Marglin and Bhaduri (1990) who argue that European profit margins were high in the immediate post-war period, but that capitalists worried about economic depression, and hence were reluctant to commit to new capital investment. Under such conditions, concern about the level of demand would have been central to investment decisions – and hence boosting demand by allowing strong wage growth would have been good for both capital and labour (hence the term ‘co-operative stagnationist regime’). As they argue that ‘it is a plausible conjecture that the gospel of

co-operative capitalism was a sensible one for the particular circumstances of the immediate post-war period' and that 'the strategy of wage-led growth may have been the best – indeed the only, game in town' (1990: 175). However, as fears of depression diminished and as capital became more mobile internationally, concerns about profit margins began to dominate the investment decision. The co-occurrence of oil price hikes and persistent wage pressure during the 1970s shifted the economy (in a way reminiscent of Cameron and Wallace's 'tipping point') into an exhilarationist regime where concerns about profitability drive investment. According to Marglin and Bhaduri, had profitability been maintained in the 1970s and 1980s, no accumulation crisis would have occurred.

In short, the relationship between distributional conflict and the growth path is interesting for a number of economic perspectives. Different theoretical approaches bring different insights to the table, but the growth path pursued in any particular country will be a product of its specific historical, institutional and economic characteristics. This is why it is important to start with the empirical trends – particularly those pertaining to profitability, as this is a useful summary statistic for any analysis of growth and distributional conflict – and then use these trends as a focus for historical analysis.

In terms of macroeconomic aggregates, the European post-war golden age came to an end in the 1970s as constant profit rates gave way to falling profit rates. Glyn *et al*'s deconstruction of the profit rate showed that the problem arose mainly with respect to wages rising faster than that warranted by productivity growth and rising input costs (see also Glyn, 1997). We adopt an adapted version of Glyn *et al*'s methodology to deconstruct trends in South African manufacturing profitability.

### Deconstructing Profitability in South Africa

There are two central and related measures of aggregate profitability: the profit share (which measures the share of value-added accruing to capital; and the rate of profit (i.e. the rate of return on capital). In this analysis, both refer to pre-tax measures.<sup>4</sup> The relationship between the share of profit (P/Y) and the rate of profit (P/K) is provided by the following identity:

$$\frac{P}{K} = \frac{P}{Y} \cdot \frac{Y}{K}$$

P = Profits (net operating surplus at current prices)

Y = Net value-added at current prices

K = Fixed capital stock at replacement value (current prices)

---

<sup>4</sup> Ideally, one would want to look at the share of income going to labour, capital and the state (through taxation of income). This is a very complex if not impossible exercise because tax rates on capital have to be adjusted for subsidies and depreciation allowances.

In growth rate terms<sup>5</sup> this becomes:

$$\frac{\dot{P}}{K} = \frac{\dot{P}}{Y} + \frac{\dot{Y}}{K}$$

In other words, trends in the profit rate can be decomposed/deconstructed into trends in the profit share and in the output: capital ratio. Note that the rate of profit comprises a flow variable (profits) over a stock variable (capital). As profits are strongly and immediately influenced by the level of demand – whereas capital responds relatively sluggishly – the profit rate fluctuates across the business cycle. This can be seen in Figure 1 which charts the net profit rate in South Africa between 1960 and 1989 for the different economic sectors. In order to eliminate the effect of short-term fluctuations, it is necessary to analyse changes in profitability measured at similar points in the business cycle. The following ‘peak to peak’<sup>6</sup> periods in GDP growth are used in the deconstruction of manufacturing profitability in the late apartheid period: 1960-1970; 1970-1981; 1981-1989. The GDP growth peak years are indicated by solid vertical lines.

As can be seen in Figure 1, profit rates varied significantly across time and between economic sectors. This is particularly true of the mining sector (which is strongly influenced by the gold price) and commerce (i.e. wholesale and retail trade, catering and accommodation). Since the mid-1980s, mining profitability slumped, whereas the fortunes of the commerce sector rose noticeably. Total net profitability (i.e. for all sectors excluding social community and personal services – the bulk of which is government) is a product of these and other<sup>7</sup> different sectoral trends and weights. As can be seen in Figure 1, both the level and trend in total net profitability is broadly consistent with that of the manufacturing sector. The rest of the paper looks only at manufacturing.

---

<sup>5</sup> Dots symbolise that the expression is a growth rate:

$$P/K = P/Y \cdot Y/K$$

$$\ln(P/K) = \ln(P/Y) + \ln(Y/K)$$

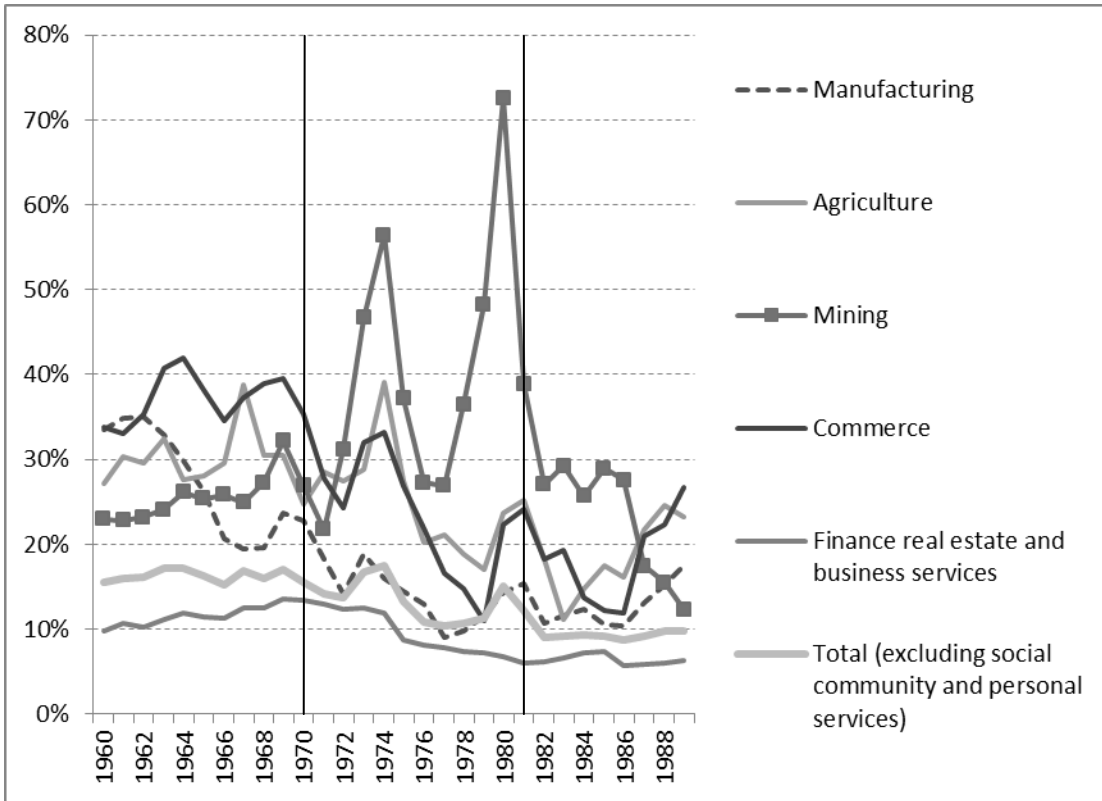
$$\frac{d\ln(P/K)}{dt} = \frac{d\ln(P/Y)}{dt} + \frac{d\ln(Y/K)}{dt}$$

$$\frac{\dot{P}}{K} = \frac{\dot{P}}{Y} + \frac{\dot{Y}}{K}$$

Expressing the change in the rate of profit as the sum of the growth rate of the profit share and the output: capital ratio is thus an approximation which is adequate for small rates of change.

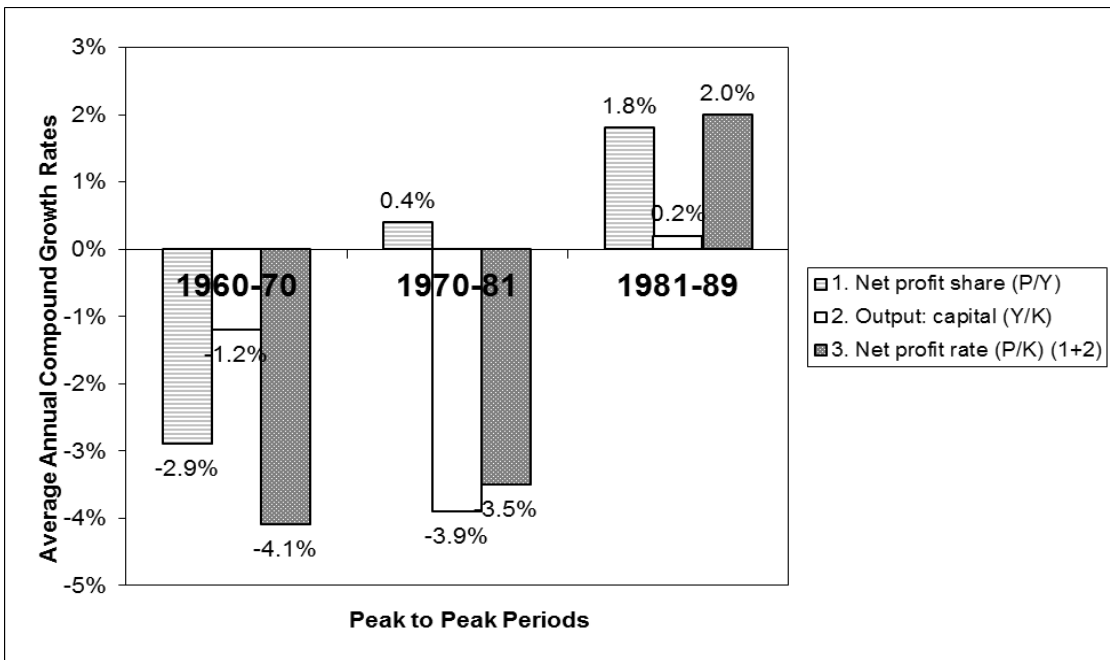
<sup>6</sup> A peak is defined as the year before the real Gross Domestic Product (GDP) growth rate falls below the five-year moving average.

<sup>7</sup> Total includes the following: Manufacturing, Mining, Agriculture, Construction, Electricity gas and water, Transport storage and communication, Commerce catering and accommodation, Finance real estate and business services.



Sources: Published and unpublished data from the South African Reserve Bank

Figure 1. Net Profit Rates by Economic Sector



Sources: Published and unpublished data from the South African Reserve Bank

Figure 2. Deconstructing Growth in South African Manufacturing Profitability

Figure 2 shows actual peak-to-peak growth rates in the profit share, output:capital ratio and the profit rate in South African manufacturing from 1960 to 1989. It shows that the profit rate fell in the 1960s and 1970s and then rose in the 1980s. In the 1970s, the profit share rose, but the dramatic fall in the output: capital ratio – i.e. capital productivity – ensured that the overall rate of profit declined. The rising share of profit was key to the rise in the profit rate in the 1980s.

This simple decomposition of the profit rate, however, begs more questions than it answers. If we want to examine what trends lay behind these aggregate shifts, it is necessary to embark on a more sophisticated deconstruction of the profit rate.

Let us start with the profit share. Value-added (Y) can be divided between remuneration of workers (W) and profits (P).

$$W + P = Y$$

The profit share is thus equal to 1 minus the wage share (W/Y). The wage share can usefully be deconstructed as follows:<sup>8</sup>

$$\frac{P}{Y} = 1 - \frac{W}{Y} \quad \text{where} \quad \frac{W}{Y} = \frac{W}{Pq \cdot L} \cdot \frac{L}{Y(Yg/Y)/(Yg/Ycg)} \cdot Pq \cdot \frac{(Yg/Y)}{(Yg/Ycg)}$$

$$\frac{W}{Y} = \frac{W}{Pq \cdot L} \cdot \frac{L}{Ycg} \cdot Pq \cdot \frac{(Yg/Y)}{(Yg/Ycg)}$$

P	=	Profits (net operating surplus at current prices)
Y	=	Net value-added at current prices
W	=	Remuneration of employees (adjusted to include income of working proprietors <sup>9</sup> )
Pq	=	Production price index (PPI) of South African manufacturing
L	=	Employment
Yg	=	Gross value-added in current prices.
Ycg	=	Gross constant value-added (i.e. Y(Yg/Y)/(Yg/Ycg))
Yg/Ycg	=	Value-added deflator
Yg/Y	=	Weight of capital consumption in value-added

<sup>8</sup> The profit share can be deconstructed in a number of ways. For a deconstruction of the South African manufacturing profit share for the period 1948-1981 see Natrass (1990). That deconstruction followed Glyn (1988). Instead of separating out the effects of the weight of consumption in value added from the GDP deflator, that deconstruction estimated the effects together.

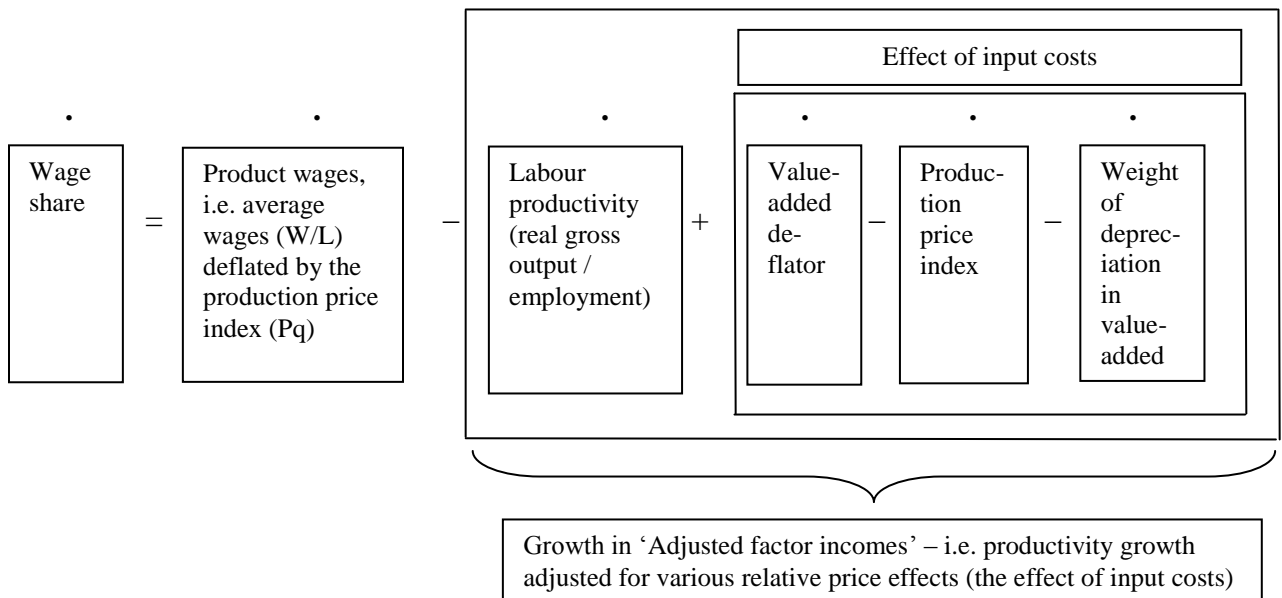
<sup>9</sup> Income of working proprietors is included in the national accounts under the gross operating surplus. In order to include this income as labour income, the number of working proprietors (obtained from various Manufacturing surveys) was multiplied by the average annual wage in manufacturing and added back to remuneration.

In growth rate terms this becomes:

$$\frac{\dot{W}}{Y} = \frac{\dot{W}}{Pq \cdot L} - \frac{\dot{Y}_{cg}}{L} + \dot{P}q - Yg/Y_{cg} + Yg/Y$$

or

$$\frac{\dot{W}}{Y} = \frac{\dot{W}}{Pq \cdot L} - \left\{ \frac{\dot{Y}_{cg}}{L} + (Yg/Y_{cg} - \dot{P}q - Yg/Y) \right\}$$



In other words, the wage share rises or falls depending on whether product wages rise faster or slower than 'adjusted factor incomes'. Adjusted factor income growth is a measure of the growth in the 'surplus' available for distribution between wages and profits. It is estimated as the growth in labour productivity adjusted for various price effects. When production prices rise faster than value added prices (i.e. the growth in the production price index (PPI) is greater than the value-added deflator) then this indicates that capitalists are experiencing an input cost squeeze. The growth in productivity thus has to be adjusted downwards in order to get an estimate of what is actually available for distribution between profits and wages. If the ratio between gross output and net output rises, then this indicates that a higher proportion of value-added is going towards capital consumption (depreciation). This will also exercise a squeeze on the surplus available for



distribution. The effect of these relative price movements will be referred to collectively as the ‘effect of input costs’.

Wages are deflated by the PPI rather than the Consumer Price Index (CPI) in order to give an indication of the real cost to capital of employing labour. Wages deflated by the CPI, which provide an indication of the real value of remuneration to workers, are provided as a memo item in the deconstruction (see Table 1).

The rate of profit is a function of trends in the profit share (which is a function of trends in the wage share – as shown above) and in the output:capital ratio. The output: capital ratio can usefully be deconstructed as follows.

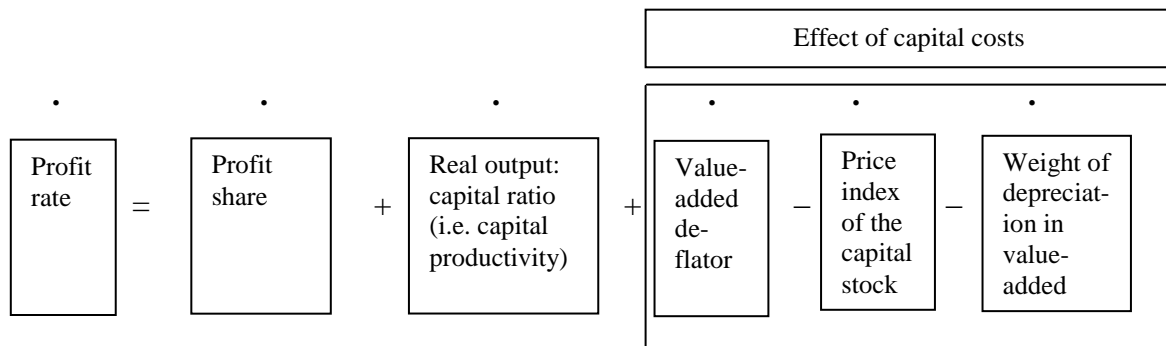
$$\frac{P}{K} = \frac{P}{Y} \cdot \frac{Y}{K}$$

$$\frac{P}{K} = \frac{P}{Y} \cdot \frac{Y(Yg/Y)/(Yg/Ycg)}{K/Pk} \cdot \frac{Yg/Ycg}{Pk (Yg/Y)}$$

P	=	Profits (net operating surplus at current prices)
Y	=	Net value-added at current prices
K	=	Fixed capital stock in current (replacement cost) prices
Kc	=	Fixed capital stock in constant prices (K/Pk)
Pk	=	Price index of the capital stock (K/Kc)
Yg	=	Gross value-added in current prices
Ycg	=	Gross value-added in constant prices (i.e. $Y(Yg/Y)/(Yg/Ycg)$ )
Yg/Y	=	Weight of consumption in value-added
Yg/Ycg	=	Value-added deflator

In growth rate terms, this becomes:

$$\frac{\dot{P}}{K} = \frac{\dot{P}}{Y} + \frac{\dot{Ycg}}{Kc} + Yg/Ycg - \dot{P}k - Yg/\dot{Y}$$



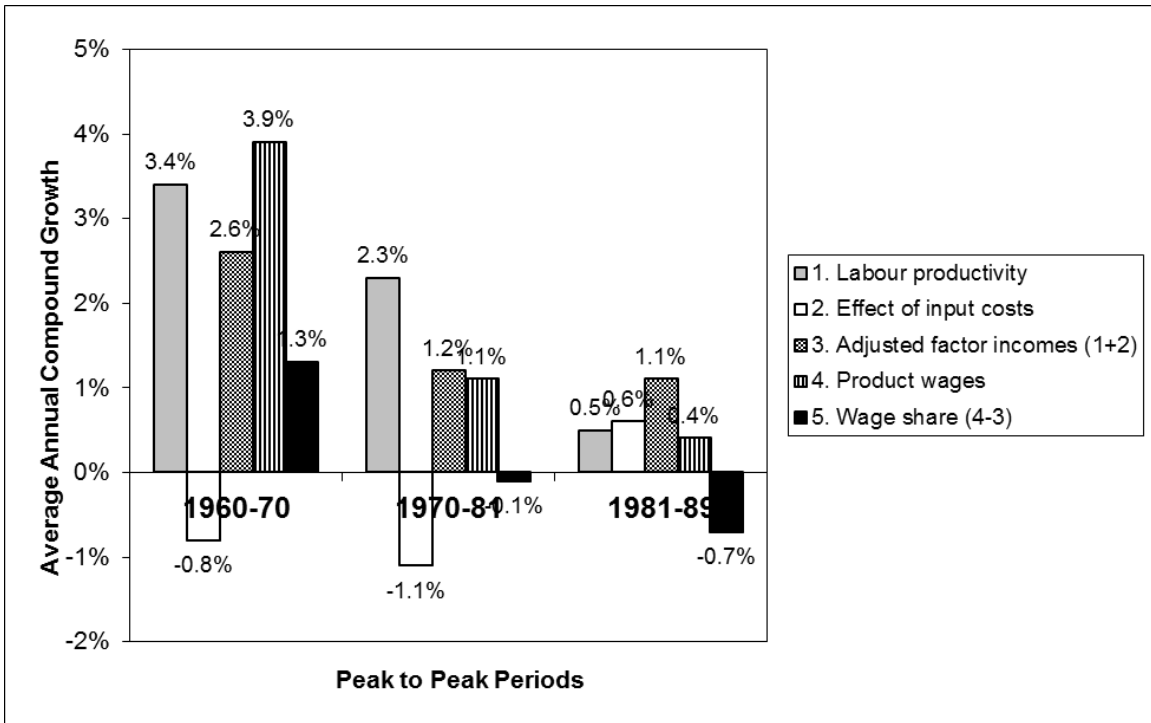
This deconstruction is helpful in that it breaks down the net current price output: capital ratio into a measure of capital productivity (i.e. real output over the capital stock in current prices) and a set of relative price movements – labelled collectively as the ‘effect of capital costs’. Assuming a constant profit share, the profit rate will rise if the real output: capital ratio rises (i.e. the productivity of capital rises) and if value-added prices rise relative to capital prices and the weight of depreciation in value-added. If capital prices rise faster than value-added prices and/or if the weight of depreciation in value-added rises faster than value-added prices, then profitability growth will be reduced accordingly.

*Table 1. Deconstructing the Net Profit Rate in South African Manufacturing*

	1960-70	1970-81	1981-89
1. Labour productivity (Ycg/L)	3.4	2.3	0.5
2. Effect of input costs (16-14-17)	-0.8	-1.1	0.6
3. Adjusted factor incomes (1+2)	2.6	1.2	1.1
4. Product wages (W/Pq.L)	3.9	1.1	0.4
5. Wage share (4-3) (W/Y)	1.3	-0.1	-0.7
6. Net profit share (P/Y)	-2.9	0.4	1.8
7. Real output: capital (Ycg)/(K/Pk)	0.3	-2.6	-0.1
8. Effect of capital costs (16-17-15)	-1.6	-1.3	0.4
9. Net profit rate (6+7+8)	-4.1	-3.5	2
<i>Memo items</i>			
10. Real wages (W/CPI.L)	3.5	2.4	-0.1
11. Real gross output (Y(Yg/Y)/(Yg/Ycg))	8.6	5.6	0.8
12. Real capital stock (K/Pk)	8.3	8.4	1
13. Real investment	12.3	7.7	-4.1
14. Production prices (Pq)	2.3	12.5	14.4
15. Capital deflator (Pk)	3.2	12.8	14.4
16. Value-added deflator (Yg/Ycg)	1.8	11.4	15.1
17. Weight of depreciation in value-added (Yg/Y)	0.3	0.1	0.3
18. Capital: labour (K/L)	3.1	5	.7
19. Real net operating surplus	5.2	5.9	2.3

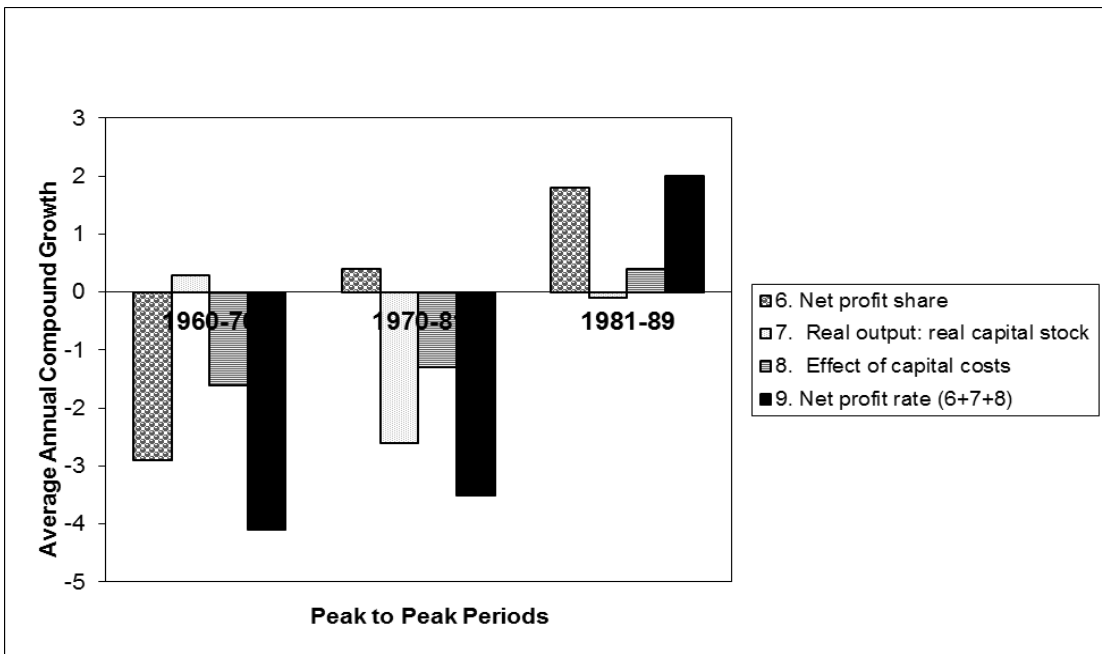
Sources: Published and unpublished data from the South African Reserve Bank, and published data from StatsSA.

Table 1 provides full information on trends relevant to the deconstruction of South African manufacturing profitability from 1960 to 1989. Long run trends in the key variables are depicted in Figures 3 and 4. As can be seen from Table 1 and Figures 3 and 4, very different forces were behind the trends in manufacturing profitability over the different periods. During the 1960s and 1970s, relative input and capital costs contributed to the profit squeeze – whereas during the 1980s, the costs of capital and inputs fell relative to value-added, thus providing capitalists with some relief from the other factors eroding profitability. Product wages rose faster than adjusted factor incomes in the 1960s, but not for the later periods. With the exception of the 1960s, the real productivity of capital fell in every period – thus contributing further to the profit squeeze.



Sources: Published and unpublished data from the South African Reserve Bank, and published data from StatsSA.

Figure 3. Deconstructing the Manufacturing Wage Share in South Africa



Sources: Published and unpublished data from the South African Reserve Bank, and published data from StatsSA.

Figure 4. Deconstructing Manufacturing Profitability in South Africa

The following section touches on the major economic developments during each period. The narrative shows how the changing pattern of profitability sheds light on the changing nature of capitalism in South Africa during the late apartheid period.

### The late Apartheid Period: 1960-1989

The late apartheid period comprises three very different economic eras: the roaring 1960s (when real growth averaged 5,6% p.a.), the decelerating 1970s (real average growth of 3% p.a.), and the stagnant 1980s (average real growth of 1.5% p.a.). To a large extent, South Africa's growth mirrored that of the advanced capitalist countries (see Armstrong, Glyn and Harrison, 1991), although higher gold prices cushioned the impact of economic decline in South Africa. But unlike the advanced capitalist countries, the downturn in the mid-1970s resulted in very high rates of unemployment which have persisted to the present. Unemployment, rather than being a cyclical phenomenon, has become an endemic structural feature of the South African economy (Seekings and Nattrass, 2005, 2011).

Up until the mid-1970s, the South African economy had been plagued by chronic labour shortages, which as radical political economists have highlighted, resulted in a state-driven process of coercive de-agrarianisation and proletarianisation (see overview of radical economic analysis of apartheid capitalism in Nattrass 1991). Development, fuelled in part by gold revenues and foreign capital, sucked labour out of traditional agriculture and facilitated rapid urbanisation. But this engine of growth slowed down sharply in the mid-1970s. Apart from the brief (gold-financed) boom in the early 1980s, the South African apartheid economy performed poorly (Figure 5).

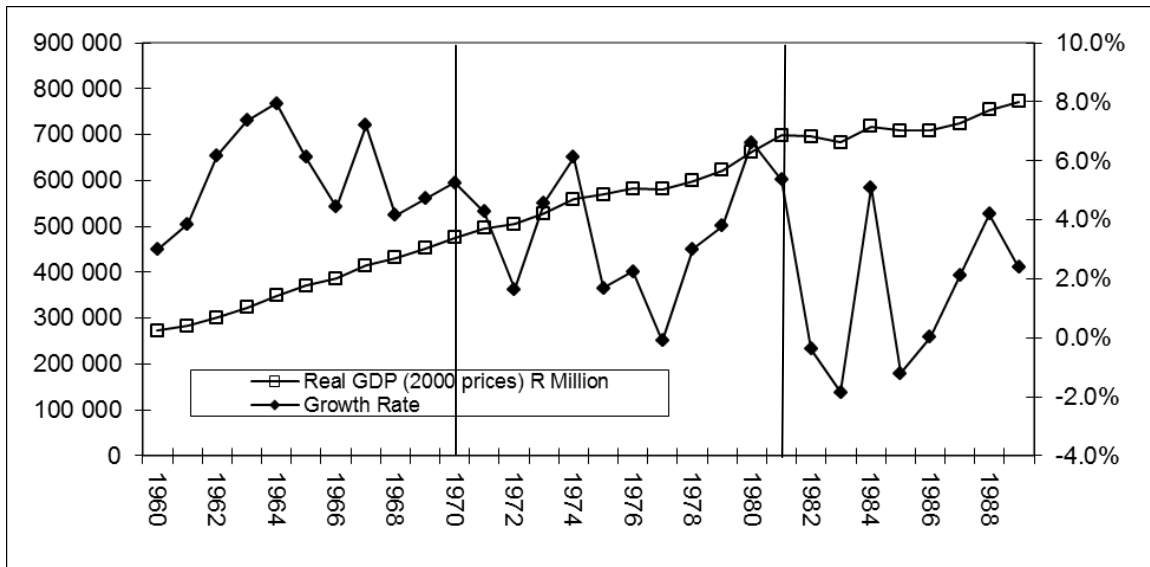


Figure 5. Trends in South Africa's GDP (data from the South African Reserve Bank).

The 1960s were boom years for South African manufacturing: between 1960 and 1970, real manufacturing output expanded at an incredible 8.6% p.a.; investment expanded at 12.3% p.a. and real net operating surplus at 5.2% p.a. For early radical historians, this performance was proof that apartheid was functional for capitalism. Given the co-existence of apartheid with rapid economic expansion, these writers suggested that there was ‘something highly functional and causally significant about the relationship between the economic system and the system of racial domination’ (Johnstone, 1976: 212). Wolpe made the point more bluntly, arguing that profitability was a direct function of low wages and that apartheid was instituted ‘for the purpose of reproducing and exercising control over a cheap African industrial labour force’ (1972: 450).

The decelerating 1970s, however, posed serious challenges for this simple radical functionalist understanding of South African capitalism. Saul and Gelb (1981) made the first attempt to rescue the radical analysis with a long-wave / SSA type of approach. They argued that apartheid was a response to an ‘organic crisis’ in the 1940s, but that by the mid-1970s, the system had itself degenerated into crisis. They claim that during the 1960s, ‘soaring profits’ and long-term expansion were allegedly guaranteed by apartheid’s driving down the black wage bill (Saul and Gelb, 1981: 70-4). The dynamics (or contradictions) which eventually undermined this growth model were argued to be rising capital-intensity and a restricted internal market. Subsequent left-wing analysis of the late 1970s and 1980s as an attempt to generate new favourable conditions for capital accumulation include Gelb (1987), Morris and Padayachee (1988) and Morris (1991).

The trouble with such accounts of the 1960s and 1970s is that they are not supported by the data. The limited data available for the pre-1960 period suggests that during 1948-1955, white workers experienced rising real wages but that because of a decline in real wages for Africans, the profit share also rose (Nattrass, 1994). But this was the only apartheid period for which these dynamics are evident (and can be attributed to post-war economic conditions and the return of white servicemen). In the 1960s, both the profit share and the rate of profit fell as wages rose faster than adjusted factor incomes. Rather than ‘soaring’, the manufacturing rate of profit fell at an average annual compound growth rate of  $-4.1\%$ , i.e. the sharpest decline yet measured in South Africa across any peak-to-peak period.

Thus in contrast to the advanced capitalist countries where a rising profit share and rising capital productivity contributed to a rising profit rates in manufacturing, South African profitability was driven downwards by wage pressure and falling capital productivity. There is thus little evidence for a stable “apartheid SSA” during this period (see Nattrass 1994) and poses some questions for the radical ‘cheap labour’ theory of South African capitalist development.

### Cheap Labour?: A Methodological Challenge

At this point we are confronted with a methodological challenge. The data indicate that labour was able to achieve a rising wage share despite apartheid repression. So, is the

cheap labour hypothesis best understood in absolute terms (actually falling or stagnant wages) or in an abstract relative way (i.e. relative to what wages would have been in the absence of apartheid)? This issue plagued the liberal-radical debate in the 1970s. For example, when Lipton (1974) and Bromberger (1974 and 1978) questioned the cheap labour hypothesis by pointing to the rapid growth of black real wages in the 1960s and early 1970s, Legassick replied that ‘Institutions of racial discrimination and/or extra economic coercion may serve to “cheapen” labour, to make it cheaper than it would have been in their absence, whether or not the absolute magnitude of the wage of employed persons is rising or falling’ (1978: 73-4). Legassick may well be correct – but his position makes the cheap labour hypothesis impossible to test or disprove.

The same problem, of course, applies to more conventional economic analysis. For example, Dollery (1989) posits a rival scenario using a neoclassical general equilibrium approach to show that profits were lower and wages were higher than they would have been in the absence of apartheid restrictions on the labour market. His analysis is similarly driven by assumptions. In his classic analysis of the ‘Southern African economy, Porter makes no reference at all to data in his analytical consideration of how racially structured economies work. He argues that whites are likely to have captured some of the gains of black wage repression, and while it is possible for the system to have generated rising wages and profitability for whites, relative price changes may work in counter directions (1978: 750-1). Some reference to real world trends may have been helpful, although this would have involved imposing such strong assumptions on the data that the results themselves become theory-driven. For example, Spandau (1973) compared estimated exponents of a production function with actual factor income shares and concluded that white workers were under-paid and black workers over-paid in respect of their marginal productivities. But as Archer and Maree (1975) point out, such an approach rests on dubious assumptions and ignores key structural features of the South African economy.

Ultimately, theoretical and measurement problems render this line of enquiry of little benefit to understanding either the nature or history of South African capitalist development. Rather than endeavour to explain whether wages were ‘too high’ or ‘too low’, the most useful thing to do is track the trend in wages and productivity, and see how these impacted on profitability – and then draw conclusions about the nature of the growth path.

### Profitability in the 1970s and 1980s

Despite the reduction in wage pressure (and consequent rise in the profit share) in the 1970s, the profit rate continued its downward slide – largely because of falling capital productivity and relative capital costs. The sharp drop in capital productivity is something of a puzzle. It indicates that the growth in investment (particularly in the 1960s) was probably over-rapid. It is possible that restrictions on black employment (emanating from the 1967 Physical Planning and Utilization of Resources Act (which limited black employment in certain industries and urban areas) coupled with generous investment

subsidies and negative real interest rates contributed to an economically irrational degree of capital-intensification. An additional factor might also have been the number of producers (encouraged into certain markets by tariff protection) in relation to the limited size of the domestic market (Kleu Study Group, 1983).

As can be seen in Table 1, a major factor behind the fall in manufacturing profitability in the 1970s was the sharp increase in capital prices relative to value-added prices. In other words, as firms were increasing their capital-intensity (and lowering the productivity of capital as they did so) they were also experiencing a sharper increase in inflation on capital goods, than they were experiencing for their output. Relative output: capital prices thus shifted sharply against capital, therefore undermining profitability.

Why was there such a sharp increase in capital-intensity in the 1970s? One of the reasons has to do with industrial strategy. From the mid-1920s, South Africa had followed a Latin-American style inward-industrialisation strategy. This strategy initially supported strong employment growth in labour-intensive consumer goods industries, but by the late 1960s had lost momentum. At that point, rather than opting for more outward-oriented export strategies (as in the East Asian economies), the South African government extended protection upstream into ever-more capital-intensive industries. This, together with large-scale strategic investments by the state (e.g. the oil-from-coal enterprise: SASOL) and negative real interest rates and accelerated depreciation allowances, contributed to rising average capital-intensity in the 1970s, especially in manufacturing (Kaplinsky, 1995).

During the 1970s and early 1980s, the coincidence of rising wages and negative real interest rates meant that the cost of capital relative to labour fell to about half the level it had been in the 1960s (Meintjes, 1998: 11-12). Tax breaks for capital investment further encouraged firms throughout the economy to adopt more labour-saving techniques. The change to positive real interest policies and the depreciation of the Rand in the mid-1980s reversed the downward trend in the user cost of capital but failed to boost employment growth significantly. Rising levels of industrial conflict may have contributed to this.<sup>10</sup> The net result was that the South African industrial sector became steadily more capital-intensive over time. This can be seen in Figure 6 which plots the rise in the manufacturing capital: labour ratio between 1960 and 1989.

Figure 6 shows that it was the dramatic increase in the capital stock which was the primary driving force behind the rise in capital-intensity in the late apartheid period. Manufacturing employment doubled during the 1960s and 1970s – but the real manufacturing capital stock increased almost five-fold over the same period, thus increasing the capital: labour ratio sharply. Most of the increase occurred in the 1970s when conditions were most conducive to capital investment.

---

<sup>10</sup> The number of worker-days lost through strike action increased substantially during the 1970s and 1980s. Such disruption raises the costs of production and places further upward pressure on wages. A 1991 survey of manufacturing employers found that ‘labour problems’ were cited as the most common cause of the continuing drift towards capital intensity (Welcher, cited in Meintjes, 1998: 11).

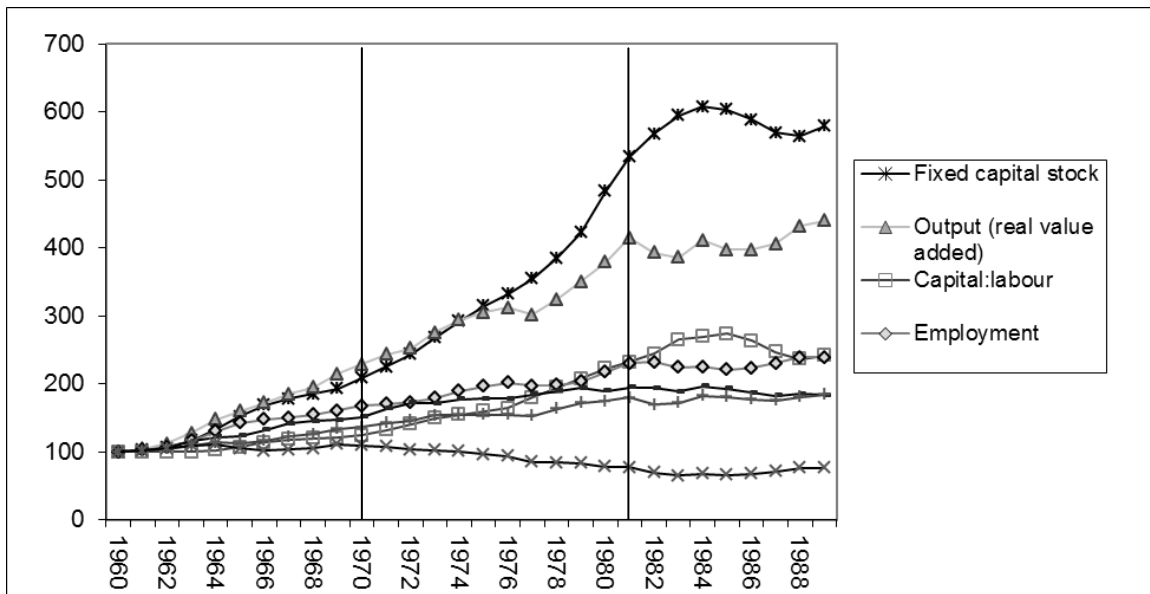


Figure 6: Key Trends in South African Manufacturing: 1960-1989 (data from the South African Reserve Bank)

One of the contributing factors to this trend was developments in the labour market. Under apartheid, independent African trade unions were denied access to industrial councils (where wage bargaining took place at industry level). In 1979, the Wiehahn Commission recommended full trade union rights for Africans. This was implemented shortly thereafter, and by the mid-1980s, African trade unions were participating in industrial councils (now called ‘bargaining councils’).<sup>11</sup> African trade unions were able to use their new-found institutional muscle to push up wages – especially for relatively low-paid workers (Hofmeyr, 1994). To the extent that such wage pressures encouraged firms to adopt labour-saving techniques, these trends would have contributed to the increase in capital-intensity.<sup>12</sup>

The 1980s were disappointing for both labour and capital. Workers experienced a fall in real wages while the costs of employing labour (product wages) rose marginally. It was only because of mild productivity growth and relative prices turning in favour of capital that the profit share rose. This, plus rising capital productivity, helped boost the rate of profit, but – rather than being a sign of economic robustness, these trends reflect economic stagnation as the capital stock eroded in the face of social and political unrest. There was clearly a need

<sup>11</sup> Not all workers, however, were covered by industrial council agreements. The impact of deracialising the industrial council system, was thus to ‘recycle’ the old apartheid wedge between white and black workers, into a wedge between ‘insiders’, i.e. workers covered by industrial councils, and ‘outsiders’ i.e. those in poorly-paying uncovered sectors such as agriculture and services, and the unemployed (Moll, 1996).

<sup>12</sup> Most calculations of employment elasticity in South Africa indicate that the labour demand curve is relatively elastic. Estimates range from  $-0.55$  to  $-0.85$ , which suggests that a 10% increase in wages will result in a drop in employment of between 5.5 percent and 8.5 percent (EAGER Report, no.10, Spring 1999: 7; Fedderke and Mariotti, 2002: 860).



for a reconfiguration of the South African political and institutional environment and to make a decisive break with the apartheid past. The political negotiations that started in the late 1980s and continued into the early 1990s are a product of that realisation.

## Conclusion

Between the 1960s and the 1980s, capitalism in the advanced capitalist countries shifted from a ‘wage-restraint plus high investment’ (golden age) growth path to a low-investment no wage restraint (bastard golden age) as capitalists became more concerned about the profit rate than level of demand. South Africa also experienced a fall-off in growth and rising unemployment in the 1970s and 1980s, but the relationship between wages and profitability was somewhat different. The analysis presented above suggests that the major source of profit squeeze under apartheid was the poor performance of the output: capital ratio (capital productivity) rather than a wage squeeze as such.

Between 1970 and 1989, wages did not rise faster than adjusted factor incomes (labour productivity adjusted for the effect of input costs) – thereby averting any wage squeeze on profitability. During apartheid, racial restrictions on the labour market and subsidies to capital encouraged greater capital intensity. This helped boost the profit share (by increasing labour productivity), but it also acted as a brake on the growth in profitability by reducing capital productivity. It was only during the 1980s that investment slowed to such an extent that the decline in capital productivity (and hence also in the profit rate) was arrested.

Trends in the profit share and profit rate during the 1980s favoured capital. Yet by no stretch of the imagination could it be concluded that this was good for growth or for South African capitalism. Despite a real growth in the net operating surplus of 2.3% p.a., real investment plummeted by 4.1% p.a. as the economy stagnated. This was neither an exhilarationist nor a co-operative stagnationist regime and nor was it either a limping golden age (there was unemployment for sure, but no significant investment) nor a bastard golden age as real wage decline was not boosting investment either.

This illustrates the importance of factors beyond immediate profitability in driving the investment decision – and the limitations to using trends in wages, productivity and profitability as indicators of the health of capitalism. Political unrest and stagnant demand became the key concerns for investors. One does not have to be a believer in SSA theories of capitalism to understand that the social and political structures in South Africa during the 1980s were not conducive to investment and growth. All sides of the ideological and political spectrum agreed that a political transition was needed to recreate the conditions required for sustainable growth.

Since 1990, the South African economy has been characterised by rising real wages, rising labour productivity (as employment stagnated) and rising profit shares. The result is an increasingly exclusive form of capitalism in which employers shift away from labour-intensive forms of production to protect their profit margins (Nattrass, 2011). This

is partly a consequence of the greater political and institutional power of organised labour – but it also reflects industrial policies that continue to support capital-intensive sectors and processes. In this regard, the post-apartheid political-economy is very clearly born out of the womb of the old: emphasis continues to be placed on mechanisation, which drives up labour productivity, undermines capital productivity and entrenches high rates of unemployment. Post-apartheid South Africa has transformed in fundamental ways, but in this regard, trends are depressingly continuous.

## References

- Archer, S. and J. Maree. 1975. "Over and Underpayment in South African Industry: A Comment", in *South African Journal of Economics*, vol.43, no.2.
- Bowles, S. and R. Boyer. "Wages, Aggregate demand and employment in an open economy", in Gintis, H. and G. Epstein (eds) *Macroeconomics after the conservative era*, Cambridge University Press, Cambridge.
- Bromberger, N. 1974. "Economic Growth and Political Change in South Africa", in Leftwich, A. (ed), *South Africa. Economic Growth and Political Change*, Allison and Busby, London.
- Bromberger, N. 1978. "Economic Growth and Political Change in South Africa: A Re-assessment" in Schlemmer, L. and E. Webster (eds), *Change, Reform and Economic Growth in South Africa*, Ravan Press, Johannesburg.
- Cameron, G. and C. Wallace. 2002. "Macroeconomic Performance in the Bretton Woods Era and After", in *Oxford Review of Economic Policy*, vol.18, no.4: 479-494.
- Dollery, B. 1989. "Capital, Labour and State: A General Equilibrium Perspective on Liberal and Revisionist Approaches to South African Political Economy", in *South African Journal of Economics*, vol.57, no.2.
- Eichengreen, B. 1996. "Institutions and Economic Growth: Europe after World War II", in Crafts, N. and G. Toniolo (eds), *Economic Growth in Europe since 1945*, Cambridge University Press, Cambridge.
- Fedderke, J. and Mariotti, M. 2002. "Changing Labour Market Conditions in South Africa." *South African Journal of Economics* 70, no. 5: 830-864.
- Gelb, S. 1987. "Making Sense of the Crisis", in *Transformation* no.5: 33-50.
- Gibson, B. 2000. "Will lower wages cause faster growth in South Africa?", in *Studies in Economics and Econometrics*, vol.24, no.3.
- Glyn, A. 1988. "Behind the Profitability Trends", in *Keisai Kenkyu*, July.
- Glyn, A., A. Hughes, A. Lipietz and A. Singh. 1990. "The Rise and Fall of the Golden Age" in S. Marglin and J. Schor (eds.), *The Golden Age of Capitalism: Reinterpreting the Postwar Experience*, Clarendon Press, Oxford.
- Glyn, A. 1997. "Does Aggregate Profitability Really Matter?", in the *Cambridge Journal of Economics*, vol.21: 593-619.

- Gordon, D, Edwards, R. and M. Reich. 1994. "Long Swings and Stages of Capitalism", in Kotz, D, McDonough, T. and M. Reich (eds.), *Social Structures of Accumulation: The Political Economy of Growth and Crisis*, Cambridge University Press, Cambridge: 11-28.
- Hofmeyr, J. 1994. *An Analysis of African Wage Movements in South Africa*, Research Monograph No.9, Economic Research Unit, University of Natal, Durban.
- Johnstone, R. 1976. *Race, Class and Gold*, Routledge and Kegan Paul, London.
- Kaplinsky, R. 1995. Capital Intensity in South African Manufacturing and Unemployment, 1972-90. *World Development* 23, no.2: 179-92.
- Kleu Study Group. 1983. *Report of the Study Group on Industrial Development Strategy*, Government Printer, Pretoria.
- Kotz, D, McDonough and M. Reich (Eds.), *Social Structures of Accumulation: The Political Economy of Growth and Crisis*, Cambridge University Press, 1994.
- Legassick, M. 1978. "Postscript to "Legislation, Ideology and Econommmh in post-1948 South Africa", in Schlemmer, L. and E. Webster (eds), *Change, Reform and Economic Growth in South Africa*, Ravan Press, Johannesburg.
- Lipton, M. 1974. "White Farming: A Case Study of Change in South Africa", in *Journal of Commonwealth and Comparative Politics*, vol.12, March.
- Marglin, S. and A. Bhaduri. 1990. Profit Squeeze and Keynesian Theory, in S. Marglin and J. Schor (eds.), *The Golden Age of Capitalism: Reinterpreting the Post-war Experience*, Clarnedon Press, Oxford.
- Marx, K. 1859. "Preface to *A Critique of Political Economy*". Reprinted in McLellan, D. 1977. *Karl Marx: Selected Writings*, Oxford University Press, Oxford: 388-391.
- Meintjes, C. 1998. Impediments on the Labour Absorption Capacity of the South African Economy. Discussion Paper no.2. Halfway House: Development Bank of Southern Africa.
- Moll, P. 1996. Compulsory Centralisation of Collective Bargaining in South Africa. American Economic Review: Papers and Proceedings 82, no.2: 326-29.
- Morris, M. and V. Padayachee. 1988. "State Reform Policy in South Africa", in *Transformation*, no.7: 1-26.
- Morris, M. 1991. "State Capital and Growth: The Political Economy of the National Question", in Gelb, S. (ed), *South Africa's Economic Crisis*, David Philip, Cape Town.

- Nattrass, N. 1990. Wages, Profits and Apartheid. *D.Phil Thesis*, University of Oxford.
- Nattrass, N. 1991. "Controversies about Capitalism and Apartheid in South Africa: An Economic Perspective", in *Journal of Southern African Studies*, vol.17, no.4, December: 654-677.
- Nattrass, N. 1994. "Apartheid and Capitalism: Social Structure of Accumulation or Contradiction?", in Kotz, D, McDonough and M. Reich (Eds.), *Social Structures of Accumulation: The Political Economy of Growth and Crisis*, Cambridge University Press: 253-273.
- Nattrass, N. 2000. "Inequality, Unemployment and Wage-Setting Institutions in South Africa", in *Studies in Economics and Econometrics*, vol.24, no.3: 143-63).
- Nattrass, N. 2011. "The new growth path: Game changing vision or cop out?", in *The South African Journal of Science*, vol.107, no.3/4: Art. #638, 8 pages. DOI: 10.4102/sajs.v107i3/4.638
- Nattrass, N., Wakeford, J. and Muradzikwa, S. 2002. *Macroeconomics: Theory and Policy in South Africa*, David Philip, Cape Town.
- Porter, R. 1978. A Model of the Southern African-Type Economy, *American Economic Association*, vol.68 (5): 743-755.
- Robinson, J. 1962. *Essays in the Theory of Economic Growth*, London, Macmillan
- Spandau, A. 1973. "Cross-section production functions and income shares in South African Industry", in *South African Journal of Economics*, vol.41, no.3.
- Wolpe, H. 1972. "Capitalism and cheap labour power in South Africa: From segregation to apartheid", in *Economy and Society*, vol.1, no.4: 425-56.