

# REMUNERATION, PRODUCTIVITY AND THE CONSUMER PRICE INDEX



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*Tydens 'n simposium wat onlangs deur Peromnes Salary Surveys (Pty.) Ltd. onder die voorsitterskap van dr. Dawie Gouws, professor-extraordinarius aan die UNISA Skool vir Bedryfsleiding, gehou is, is die twee referate wat hieronder gepubliseer word, deur dr. Chris van Wyk en mnr. Adam Jacobs, gelewer.*

## NOTE

*The remarks that follow are meant to provoke thought and discussion. The appended tables should facilitate exchange of views. In no way should these notes be considered to represent an exhaustive dissertation on the complex relationship between Inflation and Remuneration.*

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## LABOUR IS COSTLY

In capitalistic society labour is the most costly production factor. It nowadays claims approximately two thirds of the national income. To protect their share of the national income, i.e. profits, employers must consider all aspects of the scientific management of labour, remuneration policy in particular.

Ideally, supply and demand should determine the remuneration level for each job category. But there are relative scarcities of skills and abundance of unskilled that demand modifications in the wage rate determined by pure supply/demand analysis.

Most important principles in this regard these days are

- labour must receive a "living" wage
- labour must not be "exploited"
- a happy and satisfied labour force is economically and politically a valuable asset and a necessity to labour peace and thus continued welfare.

Due largely to traditional barriers to entry of Blacks into the labour force, Whites are probably earning more than what would have been the case in a "free"

labour market while Blacks provide the bulk of "breadline" and "under-the-breadline" cases.

## SOUTH AFRICA'S CHALLENGE IN LABOUR RELATIONSHIPS

South Africa's multinational population structure poses a very important challenge to keep the labour force contented. Comparative pay levels are a very important aspect in this regard. Particularly in the past four years wages of Blacks were the focus point of much, and in many cases highly emotional, discussion.

With respect to the lower income groups in South Africa one can distinguish between a *minimum subsistence wage* (MSW), which is the bare minimum required by a worker and his family to survive, and the so-called *humane standard of living* (HSL) wage. The latter is a wage level that should enable the worker to "enjoy a modest low-level standard of living".

However, in trying to apply these concepts, businessmen and economists encounter problems of the following nature:

1. Wages must keep track with productivity. If not, profits are eroded and inflation accelerates which can result in unemployment. So where is the trade-off between productivity and "humanitarian" considerations?
2. A wage earner himself may be earning the MSW or HSL; therefore, as an individual he may earn a satisfactory wage. Is it, however, sufficient for his family to "enjoy a modest low-level standard of living"? And should the employer take account of such a situation?

3. In determining how high one can push the level of a "respectable" family income, it is vital to ask: what is of more importance, full employment and lower wages or higher wages and underemployment? For, in the process of pushing up wage rates while not satisfying the productivity condition, certain workers may lose their jobs — thus total family income may decline or increase slower. Take the following example:

Suppose a family of four, each earning R50 per month. Total family income R200 per month. Market can afford 10 per cent wage increase and maintain existing labour force: family income increases to R220 per month. Through pressure or otherwise an average wage increase of 20 per cent is enforced. Total wage increase would amount to R40 per month and if all four maintain their work family income should increase to R240. But now one of the family is likely to lose his/her job and total family income may well decline to R180 per month — thus *net* the low-paid family may be worse off.

### WAGE TRENDS AFTER CORRECTION FOR INFLATION

The overall trend of remuneration increases in relation to productivity improvements and inflation, is disturbing (see table 1). It appears that hikes in average compensation levels in the economy have consistently exceeded the percentages required to fully compensate for overall inflation and productivity growth. Averages conceal many things, but this finding nevertheless calls for deliberation.

Despite the disquieting overall trends there is the need for South Africa to improve real living standards of its low-income earners. To arrive at a basis for discussion a study is required of changes in average money wages and changes in the consumer price index in order to ascertain the trend in real wages.

The consumer price index as compiled by the Department of Statistics is based on expenditure pattern of Whites families only. We have estimated consumer price indices for other racial groups by applying different weights to the White consumer price indices in the case of food, services and manufactured products.

We have also estimated the average wage per racial group from a sample covering approximately 75 per cent of the labour force (agriculture and most private services excluded). The results are given in table 2.

From table 2 a few observations are warranted.

1. Over the period 1970–1974 average money wages for Whites increased by approximately 49 per cent; Coloureds 65 per cent; Asians 71 per cent and Blacks 82 per cent.
2. Although, over the entire period, consumer prices showed percentage increases of roughly similar magnitude, considerably year-to-year fluctuations

are evident for different racial groups. Over the past few years the index for Blacks outstripped that for Whites; devaluation may reverse the situation.

3. Real wages of Whites (i.e. after adjustment for price increases) increased over the four-year period by some 8 per cent; those of Coloureds by 17 per cent, Asians by 22 per cent and that of Blacks by a substantial 29 per cent.
4. If tax-adjustments are made (which have of late become a progressively more important consideration for Whites), as well as adjustments for payments in kind and subsidies which are more important for the non-Whites, the real wage improvement for Whites will be even smaller and that for especially the Blacks higher than indicated by table 2.

### FACTORS WORKING AGAINST RISING AVERAGE BLACK WAGES

1. Sex composition is of importance. Over the last decade Black women became more important percentage-wise as part of labour force; this slows down increases in average Black wages but increases family income.

2. The development of the border areas and Homelands means that percentage-wise more Blacks are being employed in the rural areas where average wages are generally lower but this does not necessarily imply that rural Black workers are worse off vis-a-vis their urban counterparts. "There must be no unjust exploitation of labour in rural areas, but if a certain wage level is considered fair and equitable in a large town, then a different wage level in a smaller town, *reduced proportionately to comply with the factor of lower living costs, cannot be considered unfair, and can in no way cause any hardship to the worker.*"<sup>1</sup>

Whichever way one looks at it, it is clear that there is a *movement* towards a sharp improvement in real living standards of Blacks through the process of a redistribution of income between Whites and Blacks. The crucial question is at what speed and to what level this process can be taken without having adverse overall economic consequences.

### THE WAGE GAP

Tables 3 and 4 illustrate the varying rates of escalation of remuneration for Whites and Blacks in the different sectors of the economy. It is clear that in Mining and Construction, for example, the wage gap has been closing much more rapidly than in the Retail Trade.

The trend in the wage gap for the economy as a whole since 1970 is highlighted in Table 5.

There has been a definite tendency towards narrowing of the gap over this period. It can, however, not be accepted that this trend will continue regardless of what happens to productivity. In the final instance a continued improvement in the productivity of the Blacks is required to justify a further substantial

narrowing of the wage gap. If this is not forthcoming it seems unlikely that South Africa will be able to afford closing the gap between skilled and unskilled workers to a 3:1 or even 2:1 ratio as is the case in other countries. If productivity continues to be lagging economic factors will simply not permit the implied wage escalations.

There are also definite limits to how far one can go, on non-economic grounds, towards trying to close the wage gap "artificially". In this regard it is interesting to study the trend of the wage gap in industry since 1916. Our statistics suggest that the *White to Black wage ratio* (i.e. the wage gap) was 5,7:1 in 1916. The highest ever gap was recorded in the years 1921 and 1922 (ratio 6,3:1) and thus far the lowest in the years 1945 and 1946 (4,0:1). With the strong growth of manufacturing since then and the consequent large demand for trained labour (largely Whites) the gap increased steadily again to 6,0:1 in 1971. Since then it has been narrowing again.

### CONSUMER PRICE INDEX (C.P.I.) AND WAGE AND SALARY ADJUSTMENTS

Considering the consumer price index as an aid in determining wage and salary adjustments it must be emphasised again that an improvement in the productivity of labour under conditions of "full" employment is the only *economic* basis for justifying an *increase* in salaries and wages. How "full" is "full employment"? This is an interesting question, especially in South Africa with its large Black labour force having a peculiar work tradition and profile of skills. Generally one could say that it refers to full utilisation of the trained and skilled part of the labour force which consists mainly of Whites, Coloureds and Asians.

From a *socio-political point of view* there is little doubt that the consumer price index can with great benefit be used as a *guiding mechanism* in salary and wage adjustments. If it is accepted that the ultimate aim of policy is to improve the welfare of the community, real wages should on average be increased by say 2 per cent per annum, which seems to represent an unofficial international long-term objective. With an inflation rate of  $x$  per cent it would therefore be logical to increase the average wage by  $(x + 2)$  per cent.

If, in this model, the labour productivity improvement exceeds the growth rate of *real* wages one can even succeed in raising remuneration and still reducing the inflation rate in the succeeding period. The opposite is, however, also true.

Although it can be proved that over the longer term the consumer price indices for higher and lower income groups have increased by approximately the same rate they show wide fluctuations from year to year; they also vary from region to region.

A consumer price index for the higher income groups is officially available (i.e. the C.P.I. as published) and our information is that the Department of Statistics is busy compiling a consumer price index appropriate to the lower income groups. In the meantime we are using proxy indices which we have developed by deriving from the officially published White consumer price index figures that we consider to be reliable approximations of a typical Black, Coloured or Asian consumer price index. (See Table 2).

In this regard the expenditure surveys of Black, Coloured and Asian households undertaken by the Bureau for Market Research of the University of South Africa can be used. This method is naturally not ideal and provides only a partial solution because the expenditure habits and patterns can still differ widely between racial groups.

For instance, although the average White household spends about 25 per cent of its income on food and the average Black household 40 per cent, the *composition* of the food index may still be very different. The Whites, as higher income earners, spend proportionately more on meat and milk and the Blacks proportionately more on bread and mealie meal. Price increases for the latter have so far been less pronounced than for the former.

Another complicating factor is that the relative weights of the various items of the expenditure pattern of the average White household are available but all the corresponding weights for the large number of items taken into the consumer price index for Blacks are as yet not available.

As a rough guide the following weights can be used in adjusting the White consumer price index to derive a useful index in respect of Blacks.

*Approximate relative weights for various products consumed by the different racial groups*

	<i>Food (incl. processed food)</i>	<i>Services</i>	<i>Manufactured products (excl. processed foods)</i>
<i>Whites</i>	25%	15%	60%
<i>Coloureds</i>	42%	12%	46%
<i>Asians</i>	35%	13%	52%
<i>Blacks</i>	43%	12%	45%

*The Bureau for Market Research has also undertaken expenditure surveys in the main metropolitan areas which enable one to add a regional dimension to estimates of the C.P.I. according to racial group. In this regard it is for example, important to allow for the fact that the average Black family in Port Elizabeth spends approximately 46 per cent of its income on food against 40 per cent by the average Johannesburg household. Two factors are here of importance. One is the absolute level of income and the other the average size of the household.*

*According to Engel's law the higher the real wage the lower will be the proportion spent on necessities.*

*Similarly the smaller the household the smaller the amount likely to be spent on food. It can be accepted that the average income of Blacks in Johannesburg is higher than in Port Elizabeth, and that the average family is smaller but the number of wage earners per family larger in Johannesburg.*

### REMUNERATION INCREASES AND PRODUCTIVITY

Real wages can only up to a point be raised on "humanitarian" grounds and with reference by and large to the C.P.I., and it can be done for only a limited period. To ensure long-term welfare improvement, proper measures must be taken to improve the quality of labour.

In this regard productivity improvements through training and education remain of utmost importance.

This challenge we will have to meet if South Africa is not to be overrun by inflation. Equally important is family planning. Only if labour policy — at government and company level — places proper emphasis on these aspects, will there be grounds for sustainable increases in per capita real incomes i.e. standards of living.

### REFERENCE

<sup>1</sup> Union of South Africa, Department of Commerce, *The Report of the Rural Industries Commission*, U.G. No. 27, (Government Printer, Pretoria 1940), par 428.

### AANSOEK OM LIDMAATSKAP

Die Sekretaris,  
SAVB,  
Posbus 2502,  
PRETORIA  
0001

Stuur asseblief die nodige aansoekvorms vir lidmaatskap van u vereniging aan my

NAAM: .....

ADRES: .....

.....

Die huidige tariewe is soos volg:

Intekenaars	R 5 per jaar
Korporatiewe lede (kry 3 eksemplare)	R100 per jaar
*Seniorlede	R 12 per jaar
*Lede	R 10 per jaar
*Medelede	R 8 per jaar
Studentelede	R 5 per jaar

\*Die Raad sal die klas lidmaatskap wat toegeken mag word, bepaal.  
U sal in kennis gestel word van die toepaslike ledegede.

**TABLE 1**  
**LABOUR PRODUCTIVITY, WAGES AND THE CONSUMER PRICE INDEX MOVEMENTS IN THE SOUTH AFRICAN**  
**ECONOMY, 1970 - 1974**

	1970	1971	1972	1973	1974
<b>Economically active part of population *</b>					
Number	8 380 937	8 632 365	8 783 224	9 126 850	9 386 664
% Change		3,0	1,7	3,9	2,8
<b>Real gross domestic product in 1970 prices</b>					
R-million	12 515	13 026	13 348	14 017	15 025
% Change		4,1	3,2	4,3	7,2
<b>Average real product per worker in 1970 prices (labour productivity)</b>					
Rand Index	1 493	1 509	1 530	1 536	1 601
% Change	100,0	101,1	102,5	102,9	107,2
		1,1	1,4	0,4	4,2
<b>Average wage (all races) †</b>					
Rand Index	1 341	1 478	1 617	1 785	2 107
% Change	100,0	110,2	120,6	133,1	157,1
		10,2	9,4	10,4	18,0
<b>Consumer Price Index as compiled by the Dept. of Statistics</b>					
Index	100,0	105,7	112,6	123,3	137,6
% Change		5,7	6,5	9,5	11,6

\* No official figures are published.

† Calculated from official statistics and covering approximately 75 per cent of labour force. (Excluding farm workers and private services).

TABLE 2

**AVERAGE WAGES\*, THE CONSUMER PRICE INDEX† AND REAL WAGE TRENDS  
IN THE SOUTH AFRICAN ECONOMY PER RACIAL GROUP 1970 - 1974**

	1970		1971		1972		1973		1974	
	Rand/ Index	%Change	Rand/ Index	%Change	Rand/ Index	%Change	Rand/ Index	%Change	Rand/ Index	%Change
<b>A. WHITES</b>										
1. Average wage (Rand) do (Index 1970 = 100)	3 231 100,0		3 528 109,2	+ 9,2	3 827 118,4	+ 8,5	4 156 128,6	+ 8,6	4 827 149,4	+ 16,1
2. Consumer Price Index	100,0		106,1	+ 6,1	113,0	+ 6,5	123,7	+ 9,5	138,1	+ 11,6
3. Real wage (Rand) in 1970 values do (Index 1970 = 100)	3 231 100,0		3 325 102,9	+ 2,9	3 387 104,8	+ 1,8	3 360 104,0	- 0,8	3 495 108,2	+ 4,0
<b>B. COLOUREDS</b>										
1. Average wage (Rand) do (Index 1970 = 100)	926 100,0		1 058 114,3	+ 14,3	1 159 125,2	+ 9,5	1 320 142,5	+ 13,8	1 526 164,8	+ 15,6
2. Consumer Price Index	100,0		105,7	+ 5,7	112,8	+ 6,7	125,0	+ 10,8	141,1	+ 12,9
3. Real wage (Rand) in 1970 values do (Index 1970 = 100)	926 100,0		1 001 108,1	+ 8,1	1 027 110,9	+ 2,6	1 056 114,0	+ 2,8	1 082 116,8	+ 2,5
<b>C. ASIANS</b>										
1. Average wage (Rand) do (Index 1970 = 100)	1 007 100,0		1 182 117,4	+ 17,4	1 298 128,9	+ 9,8	1 487 147,7	+ 14,6	1 718 170,6	+ 15,5
2. Consumer Price Index	100,0		106,0	+ 6,0	112,9	+ 6,5	124,7	+ 10,5	140,1	+ 12,3
3. Real wage (Rand) in 1970 values do (Index 1970 = 100)	1 007 100,0		1 115 110,7	+ 10,7	1 150 114,2	+ 3,2	1 192 118,4	+ 3,4	1 226 121,7	+ 2,8

(Table 2 continued)

D. BLACKS													
1. Average wage (Rand) Average (Index 1970 = 100)	472 100,0	519 110,0	+ 10,0	566 119,9	+ 9,0	681 144,3	+ 20,4	857 181,6	+ 25,8				
2. Consumer Price Index	100,0	105,7	+ 5,7	112,8	+ 6,7	124,8	+ 10,6	140,7	+ 12,7				
3. Real wage (Rand) in 1970 values do (Index 1970 = 100)	472 100,0	491 104,0	+ 4,0	502 106,4	+ 2,3	546 115,7	+ 8,7	609 129,0	+ 11,5				

\* Calculated from official statistics and covering approximately 75 per cent of labour force. (Excl. farm workers and private services).

† Estimated for Coloureds, Asians and Bantu.

TABLE 3 INTERSECTORAL AVERAGE WAGE AND EMPLOYMENT TRENDS FOR WHITES, 1970 - 1974

Index 1970 = 100

	1970		1971		1972		1973		1974	
	Index	% change	Index	% change	Index	% change	Index	% choose	Index	% change
1. Mining:	100,0		106,5	6,5	112,6	5,7	133,3	18,4	157,4	18,1
Wage	100,0		97,4	-2,6	96,2	-1,2	97,9	1,8	100,1	2,2
Employment	100,0		111,6	11,6	119,2	6,8	120,9	1,4	149,5	23,7
2. Manufacturing:	100,0		100,7	0,7	101,8	1,1	102,7	0,9	103,3	0,6
Wage	100,0		111,0	11,0	117,5	5,9	129,5	10,2	141,0	8,9
Employment	100,0		101,0	1,0	98,5	-2,5	99,3	0,8	105,2	5,9
3. Construction:	100,0		109,4	9,4	127,7	16,7	141,2	10,6	159,6	13,0
Wage	100,0		102,6	2,6	105,0	2,3	107,4	2,3	111,1	3,4
Employment	100,0		108,9	8,9	121,9	11,9	134,8	10,6	159,0	18,0
4. Retail trade:	100,0		104,3	4,3	105,1	10,6	110,3	4,9	113,9	3,3
Wage	100,0		107,8	7,8	108,4	0,6	129,6	19,6	145,4	12,2
Employment	100,0		101,9	1,9	100,5	-1,4	99,1	-1,4	97,8	-1,3
5. Banking:	100,0		109,3	9,3	118,7	8,6	129,8	9,4	148,1	14,1
Wage	100,0		103,2	3,2	103,6	0,4	102,2	-1,4	102,6	0,4
Employment	100,0		117,6	17,6	128,8	9,5	140,3	8,9	160,2	14,2
6. S.A.R. & H.:	100,0		103,5	3,5	106,5	2,9	109,5	2,8	112,6	2,8
7. Central Govt.:	100,0		111,3	11,3	119,3	7,2	131,6	10,3	152,3	15,7
Wage	100,0		105,8	5,8	110,2	4,2	111,8	1,5	115,6	3,4
Employment	100,0		109,4	9,4	118,4	8,2	128,6	8,6	149,4	16,2
8. Prov. Admin.:	100,0		102,4	2,4	103,6	1,2	104,8	1,2	106,6	1,7
9. Local Authorities:	100,0									
Wage	100,0									
Employment	100,0									
10. Total Sample:	100,0									
Wage	100,0									
Employment	100,0									



**TABLE 4 INTERSECTORAL AVERAGE WAGE AND EMPLOYMENT TRENDS FOR BLACKS, 1970 - 1974**

Index 1970 = 100

	1970		1971		1972		1973		1974	
	Index	% change	Index	% change	Index	% change	Index	% change	Index	% change
1. Mining:	Wage	100,0	106,0	6,0	122,7	15,8	164,7	34,2	257,7	56,5
	Employment	100,0	98,7	-1,3	95,3	-3,4	103,0	8,1	101,2	-1,7
2. Manufacturing:	Wage	100,0	108,1	8,1	117,5	8,7	138,9	18,2	169,5	22,0
	Employment	100,0	104,9	4,9	107,6	2,6	112,0	4,1	117,5	4,9
3. Construction:	Wage	100,0	107,7	7,7	123,0	14,2	145,5	18,3	172,2	18,4
	Employment	100,0	109,6	9,6	110,7	1,0	112,5	1,6	117,2	4,2
4. Retail Trade:	Wage	100,0	107,1	7,1	116,5	8,8	128,3	10,1	144,2	12,4
	Employment	100,0	102,8	2,8	104,2	1,4	105,8	1,5	108,1	2,2
5. Banking:	Wage	100,0	106,4	6,4	124,0	16,5	156,3	26,0	194,8	24,6
	Employment	100,0	104,0	4,0	107,3	3,2	116,2	8,3	124,3	7,0
6. S.A.R. & H.	Wage	Not readily available								
	Employment	100,0	102,5	2,5	103,4	0,9	105,5	2,0	110,2	4,5
7. Central Govt.:	Wage	100,0	123,3	23,3	129,1	4,7	144,9	12,2	177,8	22,7
	Employment	Not readily available								
8. Prov. Admin.:	Wage	100,0	108,1	8,1	129,6	19,9	149,2	15,1	194,3	30,2
	Employment	100,0	102,8	2,8	106,6	3,7	107,2	0,6	111,1	3,6
9. Local Authorities:	Wage	100,0	107,3	7,3	120,4	12,2	139,5	15,9	163,0	16,8
	Employment	100,0	105,2	5,2	106,2	1,0	107,7	1,4	113,1	5,0
10. Total Sample:	Wage	100,0	109,9	9,9	119,9	9,1	144,2	20,3	181,5	25,9
	Employment	100,0	103,3	3,3	105,3	1,9	110,8	5,2	113,2	2,2

TABLE 5

**WAGE GAP AMONG THE VARIOUS RACIAL GROUPS OVER THE  
PERIOD 1970 – 1974 IN THE S.A. ECONOMY**

**Note:** Average wages for Whites, Coloureds & Asians expressed as multiple of average Black wage before adjustments such as taxation, subsidies or payments in kind.

	1970	1971	1972	1973	1974
<i>A. Money Wages</i>					
White to Black	6,8:1	6,8:1	6,8:1	6,1:1	5,6:1
Coloured to Black	2,0:1	2,0:1	2,0:1	1,9:1	1,8:1
Asians to Black	2,1:1	2,3:1	2,3:1	2,2:1	2,0:1
<i>B. Real wages (valued at 1970 prices)</i>					
White to Black	6,8:1	6,8:1	6,7:1	6,2:1	5,7:1
Coloured to Black	2,0:1	2,0:1	2,0:1	1,9:1	1,8:1
Asians & Black	2,1:1	2,3:1	2,3:1	2,2:1	2,0:1