

PRODUCTIVITY

1980

18 MARCH 1981 — 25 Sept. 1981

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changing staff

private secretaries (short-hand typists) has led to a situation where some employers were recruiting these women from overseas.

A private secretary with as little as two years' experience, can, at present, command a salary of between R650 and R750.

In their surveys, P-E analyse reasons for termination. One of the prime turnover factors for people earning less than R400 a month is salary. People earning more than that generally leave to improve career prospects.

An important part of turnover studies, is the actual cost to the company in productivity.

A basic unskilled labourer will cost a company about R150 just to employ the man.

A school leaver joining the mines or similar career will cost the company about R2 000, just to induct him.

These figures include the cost of recruiting and training staff, plus time lost in reduced productivity.

CONSERVATIVE

To replace a middle management man or woman costs a firm not less than about R10 000.

The major expense is incurred in the "wind down" month after the original employee resigns, when his or her productivity drops.

The next six weeks to two months after the new employee starts work, are generally fairly low in productivity as he learns the ropes of the job. Time is often expended by another employee showing the newcomer what to do.

The employer, particularly if looking for someone in a specialised

field, will, in addition, have to pay an attraction premium of about 20 percent on top of the previous employee's salary.

P-E Consulting works their replacement employee work cost calculations on five times the person's salary — which they say is a fairly conservative way of evaluating this.

Professor Roux van der Merwe of the industrial psychology department at the University of Port Elizabeth, has recently completed a four-year study into labour turnover.

"One of the factors that came through strongest in high turnover organisations, was the way companies administered pay," Professor van der Merwe said.

"A company that administers pay in a slipshod way, does not appraise workers or reward merit, will have a high turnover. One of the strongest and most immediate ways to rectify rapid turnover is to pay well."

Mr Cole and Ms Sue Parson of P-E Consulting pointed out that some big companies could get away with paying less than others.

"But if they have a good training function and there are definite career paths, enabling the worker to see his future mapped out in the company, turnover is minimal," Ms Parson said.

She also stressed that human relations and communication were vital. "A good salesman doesn't necessarily make a good manager; he may be good at his job, but has no training in how to deal with staff," Ms Parson said.

down some of the problems of training blacks to become skilled artisans or labourers — primarily the because of job reservation — P-E has completed an interesting experiment in SWA/Namibia.

There is a critical shortage of artisans in SWA/Namibia.

A mining company with 15 white artisans and 25 black employees approached Mr Cole asking them to assist overcome their recruitment problem.

Instead, he broke down the technical training for artisans into modules. The labourers study a module at a time until they have

the equivalent qualification of an artisan.

A year later the company had four white artisans and 25 black workers.

The company had saved R1,5 million (in the white artisan salaries) and productivity had increased.

Motivation of the black workers soared, and now white school leavers are also following the same module course.

"South Africa has such a shortage of skilled people in an incredible range of fields, that training is all important. The people we have, have to be really good in their field," Mr Cole said.

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'GUESS- TIMATE'

18/3/80 (247)

LABOUR

High cost of

By Charlene Beltramo

This year about 50 000 manufacturing artisans will change their jobs, a staff turnover that will cost employers about R80-million.

This will reflect a turn-

over of 30 to 35 percent, which is average for blue collar workers, according to labour experts.

Mr Jon Cole, manager of the salary survey unit of P-E Consulting — management specialists — said that each artisan job

changeover costs the company losing the employee R1 500.

The rapid turnover of these people is mainly attributable to the scarcity of skilled artisans — partly due to job reservation — which gives these em-

ployees greater bargaining power.

Tool makers have, as an example, jumped in earnings from about R5 an hour to R7,50 an hour in the last six months, Mr Cole said.

A shortage of qualified

SUMMARY OF STAFF TURNOVER — JANUARY TO MARCH 1979

CATEGORY	Annual staff turnover percentage	Median length of service of leavers in months	Percentage of terminations recorded as		SIZE OF SAMPLE	
			Voluntary %	Dismissed %	Average number employees during the quarter	Total number of controllable terminations during the quarter
WHITES						
Male, Artisans	28,3	30,9	9,6	20,2	23,4	22
Male, salary up to R600 pm	17,7	19	21	16	18,3	142
Male, salary over R600 pm	6,7	6,5	5,7	5,2	6,1	90
Male, hourly/weekly paid	11,7	6,2	20,2	10,1	11,7	10
Female, salary up to R400 pm	17,1	23,8	20,9	12,3	17,8	249
Female salary +R400 pm	7,8	8,9	7,6	5,9	7,6	84
ASIANS						
Male, salaried	10,3	14,2	9,1	22,8	8,2	8
Male, hourly/weekly paid	4,7	2,0	8	—	3,8	
BLACKS						
Male, salaried	10,8	14,1	14,5	8,8	12,5	75
Male, up to R30 a week	30,8	24,9	12,4	5,9	28,6	91
Male, over R30 a week	16,9	12,3	12,9	20,6	13,3	142
Female, hourly/weekly paid	25,9	49,4	34,2	14,7	34,7	11
COLOUREDS						
Male, salaried	12,3	13,4	13,5	11,1	13,6	14
Male, hourly/weekly paid	6,4	16,2	8,5	6,4	10,1	7
Female, salaried	9,1	11,9	11,4	9,7	10,7	13
					45 646	960

Figures supplied by P-E Consulting (Pty) Ltd.

The graph clearly shows discriminatory wage and salary patterns and how turnover drops as these patterns subside.

NEGLECTED

Mr Cole and Ms Parson criticised the fact that most companies neglected to conduct termination interviews

"There is a complete lack of company investigation into what is causing the turnover. If there are a lot of dismissals, for example, they must investigate their selective process, something must be wrong with that," Mr Cole said

Ms Parson added that high turnover and dismissals from one department could indicate a boss who demanded more of his staff than they were skilled to do

Professor van der Merwe said turnover rates for salaried white collar workers were approximately 18 percent a year

Professional people have the lowest turnover of all groups at 10 percent a year

Professor van der Merwe said his study had shown that racial differentiation in turnover had become much smaller

"As soon as blacks become salaried workers, they follow the same mobility patterns as their white colleagues," he said

However, P E found that black hourly-paid women fall into the highest turnover category

"They tend to be dismissed more often and many desert their positions — it's difficult to be loyal to a company paying a low salary (and black women tend to be the lowest paid workers)," Ms Parson said

In an attempt to break

18/3/80
847

Manufacturing 247
gets more work
out of workers

REGISTRAR (ACADEMIC)

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1523660	POUROND	JENNIFER SOLANGE	115101	FRENCH I	F	1	1523660		
					* TOTAL NUMBER OF STUDENTS	2			

CCC

Unemployment can be beaten, says Horwood

By Hugh Leggatt, Political Correspondent
CAPE TOWN — The Minister of Finance, Senator Horwood, expressed faith today that the unemployment bogey could be beaten.

choose that been

Question 5

If a household say, food and gives satisfaction more of one good willing to the other good B the

He said the Government was serious about major investment in the education and training of blacks, and that private companies were also hard at work on the challenge of raising skills.

Opening a new chemical plant in Kempton Park, the Minister said "Investment in plants and machinery must be supplemented by investment in education and training, that is to say, human capital."

Higher productivity was the only long-term way of beating the hoodoo of inflation.

The Government was assisting in numerous ways to encourage employers and employees to improve output per man hour.

EMPHASIS

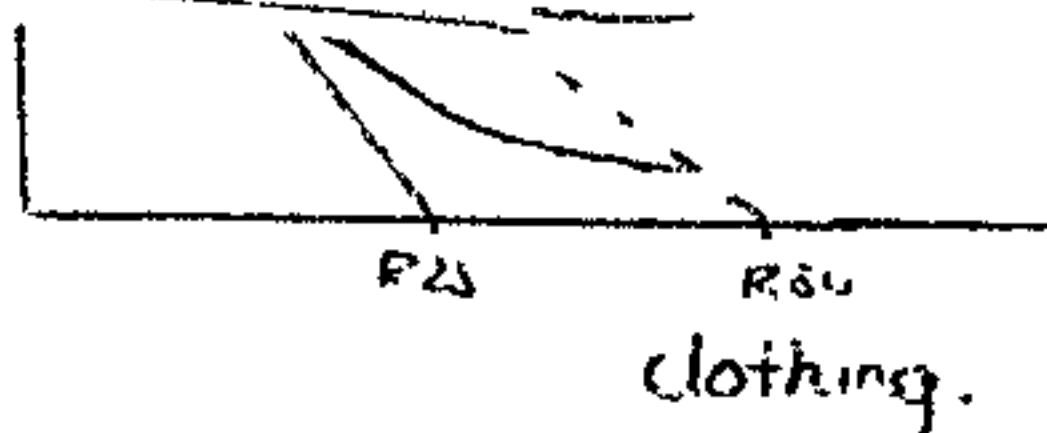
It was disquieting, however, that the average cost of labour per unit was outstripping increases in production per man-hour.

The Department of Education and Training planned to spend more than R240-million this year on training and educational facilities for blacks.

Nevertheless, the largest part of industrial training was being provided by individual firms.

"I firmly believe that we have the capacity and the will to train our own people to assume increased responsibilities by raising their skills early and significantly," he said.

Now let us assume income of R1 R4 a unit.



clothing.

can choose a 'bundle' of goods commodity B, say food, it will bring maximum

income Y, is given 2 commodities choose any combination of good that are said to be indifferent. But if old sacrifices for good B, the less surrender one of good A for one of indifference curve.

A household may have any number of indifference curves

budget line. Say the household has and costs R2 a unit and clothing costs R4 a unit. The budget line will look something like this.

Now let us assume that the price of clothing drops to R2 a unit. The resultant budget line is dotted.

The question now is whether this will necessarily increase the consumption of either commodity A or B. Real income has increased by R25 and the point (b) on the new budget line seems the logical place to jump to. An increase in the buying

Productivity: missed chances; missed millions

"ABYSMAL". That is how Mr John Parsons, head of the National Productivity Institute's economic and financial division, describes SA's performance in this field.

After years of exhortation, to produce more at less cost, something is drastically wrong

A fundamental stumbling block is general confusion over what is meant by productivity

- Employers believe the goal is bigger profits
- Employees see it as speeding up the assembly line
- Trade unionists are wary of lay-offs
- Economist and academic spectators are too far removed

By **BILL CAIN**

from the "coal face"

● Most people still think (erroneously) that productivity means simply working harder

"What we really need is to work smarter," says value engineer, Keith van Heerden

He cites Southern Cross Steel as one company that has radically contained costs while expanding output

The Middelburg company's performance is impressive and can be emulated, says Mr Van Heerden, by any organisation — from heavy industry to municipalities — that tackles its problems from the top down

One spin-off of Southern Cross's blitz on traditional methods is a 32% steel produc-

tion increase over four years with only 2% more staff

This makes last year's overall manufacturing sector productivity increase, at 1,03%, seem ridiculous

Not that the sector as a whole isn't trying. Manufacturing industries last year, before the boom was fully underway, pumped 5,46% more effort into their businesses than in 1978 while output rose 6,49%

Putting in 0,4% more labour resulted in an 0,87% worker productivity increase, and a 1,01% higher capital expenditure helped raise output 0,13%

Spending 4,05% more on materials and services resulted, however, in only an 0,29 contribution to productivity

Mr Parsons agrees that the equation is, for people not familiar with productivity models and statistics, hard to comprehend.

What comes through clearly, however, is that working harder is not the sole way to economic salvation.

Mr Tim Taylor, NPI human resources division project manager, puts it pithily in a paper on value engineering when he says productivity is a combination of the better utilisation of labour, capital, materials and energy. Which seems to quash the work-harder syndrome

Another measure — much easier to understand — is aimed at simply by dividing the gross national product (GNP) by the number of workers (from chief executive to tea ladies) to find out how nations rate in the productivity league

SA's poor performance shows up even more starkly here

In 1978, the average value of goods produced by each economically active person was \$4 221. In the US it was \$25 556, West Germany \$26 793, UK \$12 402, France \$22 440, Italy \$12 164, Australia \$16 995, and Spain \$11 801

"Working harder is not unrelated to productivity but I'm sure the Americans and Germans don't work five and six times harder than us," says Mr Parsons

He adds that in manufacturing last year, while South Africa's worker output gained (0,4% to 0,87%), capital usage declined (1,01% to 0,13%). Use of materials and services (4,05% to 0,29%) was comparatively wasteful

The industry's productivity rise comes from a very low base. In 1970 the benchmark

KEITH VAN HEERDEN

sectors its efforts, however modest, are exemplary

Why? Mr Van Heerden, a founder of the 50-member Value Engineering and Management Society, says bluntly that most people in business will just not open their minds to what is going on around them

He adds "There is resistance to change. Management thinking must be tackled first because they are the people who think they know best."

Exposure to value management techniques, often a painful process for executives expected to bare their abilities and shortcomings to subordinates in boardroom brainstorming sessions, is one way of breathing new life into old boilers

The method of improving a company's performance, in design, marketing, testing and financial practices as well as productivity, is drastic but profitable

Mr Don Carroll, Southern Cross Steel division executive director, reports that value engineering was introduced at Middelburg five years ago with everyone from foreman and above now put through its courses

Every capital project is also given value engineering scrutiny (in some companies this means no-holds-barred management-worker jousts) before getting the go-ahead.

Among measurable benefits he recalls are a 38% reduction in cost of "a fairly major capital-intensive expansion", after the original scheme had already been trimmed to the bone, and a 17% recurring an-

with the 1,01% improvement, had only struggled back to 89,4

While manufacturing's performance is the easiest to measure, mainly because its output is tangible, it is not by any means the worst. Against some

nual reduction in heavy merchant electricity bills

Mr Carroll also lists better communication, commitment to the company, motivation and teamwork as significant value engineering spin-offs

PRODUCTIVITY

When two plus two equals three

A productivity crisis is afflicting the Western world, and causing economists and politicians increasingly to question the whole growth-dependent concept of the capitalist system

In the decade to 1973, each worker in the Western world's seven major economies (US, Japan, West Germany, France, Britain, Canada and Italy) raised his output by 4.5% a year. Since then the growth rate has been only 1.5%

Among the reasons advanced for this alarming trend are the oil crisis, which slowed overall economic growth and in turn placed a lid on productivity improvement. (The relationship between produc-

tivity growth and economic growth is a chicken and egg one — each has a causal effect on the other), lower levels of capital investment, an inability to lay off labour as fast as demand was declining (partly because of labour protection laws), increased implementation of pollution and safety regulations, and labour shifts from high-productivity manufacture to lower-productivity service industry

Different story in SA

Though most of these factors are pertinent to SA the pattern presents another story here. As it does when the economy is booming, industrial productivity is actu-

ally rising again, though the trend in the last decade provides scant cause for complacency. The reason for this is that we have never had a high rate of productivity growth — even now it lags way behind those of leading Western nations in whose economic footsteps we seek to follow

A crude measure of productivity is output (gdp) per economically active person. The accompanying chart shows that SA, despite its wealth of natural resources, lags well behind even such naturally poorer countries as Israel and Spain. Moreover, it is not catching up.

Between 1970 and 1978, labour productivity in the manufacturing sector rose

only 5.4% — an average compounded annual increase of 0.6%. During the same period, industrial wages rose faster than the inflation rate, which means that SA's work force was taking proportionately more out of the economy than it was putting into it.

The graph shows how earnings per employee in manufacturing throughout the Seventies have been rising faster than production. At one stage, a 2% decline in productivity coincided with an 18% increase in earnings.

What saved us, and made possible a measure of growth, was that the economy consumed more of the factors of production or resources, such as materials, labour, capital and energy, as opposed to squeezing more out of those resources.

These are the only two ways of increasing the output of the economy or any part of it. A manufacturer producing, say, motor cars, can expand by either increasing his inputs (employing more labour, more capital, more energy or more materials) or by improving the productivity (efficiency) of his operation in order to produce more from each input.

This may mean employees have to work harder — but not necessarily. They might work less hard — using improved methods, more brainpower, better equipment, computers, and so on.

The term productivity is generally associated only with labour productivity, since the ultimate measure of output is related to the people who benefit from it. But the productivity of other resources can also vary. This, in fact, provides the answer to those who fear that productivity improvements can only be made at the expense of employment. Labour productivity and employment can grow simultaneously — if the overall economic growth rate is sufficient.

It is interesting to note that the productivity of fixed capital in SA has declined during the 1970s, suggesting that it has

been inadequately utilised — that entrepreneurs invested heavily in expectations of future growth which did not materialise.

The combined productivity index of labour and fixed capital fell from 100 in 1970 to 96.5 in 1972 before rising during the boom years of 1973 and 1974. Then it fell steadily until 1977, and registered a small recovery in 1978 — but was still lower than in 1970. The labour component of this index, however, rose.

Recent, more detailed figures from the National Productivity Institute show that of the 6.49% growth in manufacturing output between 1978 and 1979 (mid-year to mid-year), a mere 16% could be attributed to improved total productivity of materials and services, labour and capital. The rest stemmed from increased inputs — firstly of materials and services, secondly of capital and thirdly of labour.

This pattern is typical of developing economies. Western European countries, says John Parsons, head of the economic and financial division of the NPI, derive 60%-70% of output growth from productivity increases.

It's resources that count

Getting your growth from increased inputs is not bad if you have the resources — and SA has them. In particular, we have under-utilised labour resources, and it makes sense to obtain growth by increasing employment.

But it is not a simple matter of trading off job creation against improved productivity, especially when labour and other factor costs are rising so rapidly.

Says Parsons: "For the manufacturing sector to maintain growth at a rate that will result in full employment, productivity must play a much more significant role and improvements in total productivity of 3%-4% should be the aim."

For one thing, the level of productivity, together with the level of employment,

determine the standard of living of a country's inhabitants. For another, it is vital to the economic health of the nation that industry here should be competitive with industries abroad.

This may mean increased mechanisation — in other words, a higher capital/labour ratio. This decision would be based on the relative prices of the two resources, and although (as in SA) labour may be available in abundance and capital may be scarce, the unskilled wage rate could be too high in relation to the price of capital. This is tending to happen here.

Other factors favouring the use of capital intensive technology in SA are first-year tax write-offs and bonuses on capital investment, the high development cost of labour, stemming from the inadequacy of the education and training structure, and the ratio system for black labour in urban areas under Section 3 of the Environment & Planning Act.

But it would be a mistake to assume automatically that switching to more sophisticated methods will result in increased labour productivity. The NPI has tested this assumption empirically in nine branches of four distinct industries and found that only in two cases was there any correlation between the capital/labour ratio and labour productivity.

In only one case was there a correlation between the capital/labour ratio and profitability.

"The figures indicate that labour productivity will not necessarily be higher if you invest more capital per person," says Dr Jan Visser, the NPI's executive director. "A real eye-opener."

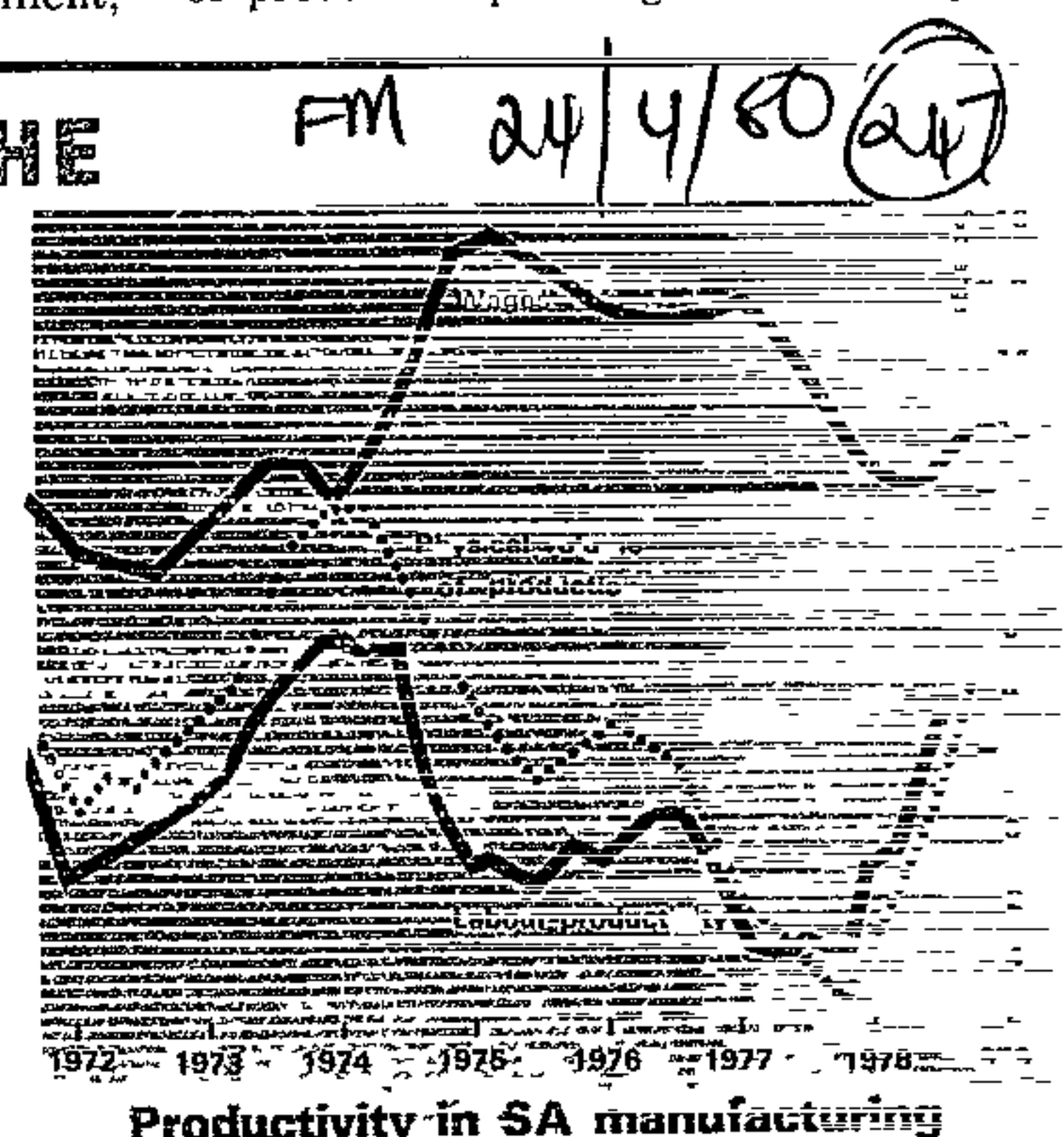
The reasons for this, he surmises, are:

- Production runs are too short really to do justice to higher investment per worker,

- The quality of labour and middle management is inadequate. Says Visser: "In almost every firm we visit we find a lack of production planning and control processes."

WHAT ABOUT THE

Switzerland 18 210
United States 17 200
Sweden 16 990
Germany 16 730
Denmark 15 120
Israel 9 600
Italy 9 190
Spain 6 690
How SA ranks
GDP per employed person 1975 (US\$)



dures, lack of costing procedures, lack of productivity measures "

● Managers tend to think that automation is the panacea for productivity problems, and once they have invested in machinery they do nothing to ensure that productivity is actually rising

What's needed, says Visser, is careful selection of technology appropriate to SA conditions, and not wholesale implementation of imported technology designed for Europe or America

'Such technologies exist, very often full of dust and out of use, if only we would care to look for them. In this regard the Japanese are a laudable example. Most of us who have attended international congresses will have observed Japanese businessmen frantically making notes with regard to technology that might be applicable in Japan

"I suggest we do less research and development and invest more in building up a technological data bank to which industrialists can refer for information on technologies of yesteryear that may still be cost effective in our unique environment "

To this end, it may be important to devise a system which encourages entrepreneurs to use the most cost-effective technique. Visser suggests wage subsidies, a levy on capital or less favourable tax concessions on investment

There is no doubt that if SA is to take its place as an advanced industrial nation, productivity must be raised. To do this requires better management, optimisation of capital and labour use, improved education and training and advances in the technology of both hardware (the machines) and software (the methods). It is

interesting that in the US, the contribution to growth made by advances in knowledge rose from 18% during 1929-1948 to 29% during 1948-1973. No other factor's contribution rose by as much

Studies in Taiwan have shown that during an import replacement phase capital intensive technology dominates. When Taiwan entered its export phase in the Sixties, more suitable local technology was developed. Industrial labour absorption rates rose from 3% a year in the Fifties to more than 8% a year in the Sixties. The same thing happened in Korea

SA is at present changing from the import substitution phase to an export phase. The hope for the future, with job creation a priority, is that we will increase our labour absorption rate on a similar scale

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Training laws may be needed

STAR 17/5/80

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By Sieg Hannig

Legislation may be necessary to get the average employer to start a concentrated training effort, says the National Productivity Institute in its annual report.

The report says it's a myth that workers become redundant when productivity increases.

Keeping productivity levels constant will not solve South Africa's unemployment problem.

On the contrary, increased productivity generates more jobs by increasing the rate of economic growth, the report argues.

And South Africa's low productivity is largely caused by a lack of skilled manpower.

"It will require a major effort, possibly even legislation, to get the average employer to start a concentrated training effort," the report says.

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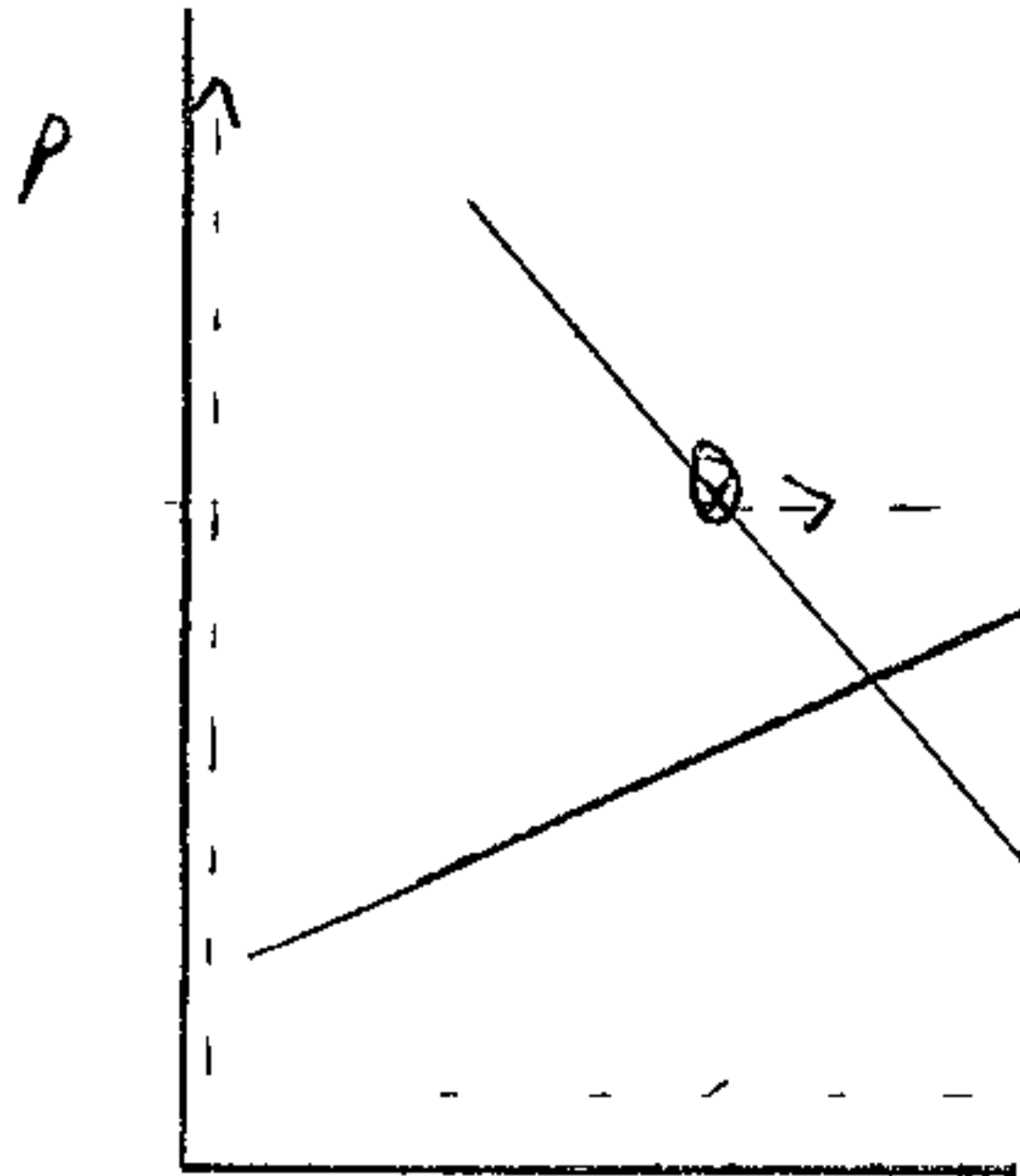
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price movements for small variations in quantity. This is the case with most foodstuffs as people no matter what the price. ~~the~~ the response is completely different.



Here the price ^{rise} is literally c in the market which leads to the most common situation. The result is usually a control boards and restrictions complex. The ultimate attempts to placate farmers gets out of hand is to and to subsidize food on.

See example, above conditions needed are a relative to the elasticity minimal variations.

Produce More to avert disaster

By SIMON WILLSON
Industrial Reporter

SOUTH AFRICA'S industries must improve their productivity if a major socio-economic disaster is to be avoided, Dr Jan Visser, executive director

of the National Productivity Institute says

Speaking at a briefing on productivity in industry in Johannesburg, Dr Visser said that, as the black population's standard of living expectations rose, productivity had to rise because people could not consume more unless they produced more.

"Unless something drastic is done about our levels of productivity we are facing a major problem. After all, we can only consume what we produce and our level of production is directly related to our level of productivity," Dr Visser said.

He said South Africa's productivity was "nothing to shout about." He consulted figures which showed South Africa's effective productivity to be below Australia's and only just above Zambia's and Kenya's. Measured in gross domestic

product per head in rands in 1978 at constant 1975 prices, Dr Visser produced the following productivity scale for selected countries

Switzerland	— 7 831
United States	— 7 080
Canada	— 6 715
Australia	— 5 486
South Africa	— 1 063
Taiwan	— 1 032
Zambia	— 491
Kenya	— 218

"We are above Tanzania and Kenya but we are significantly below Australia, which is a comparable country."

"I attended a conference in the United States three weeks ago at which speakers were even asking what could be done about the US's low productivity rate," Dr Visser said. Turning to how South Africa's productivity could be in-

creased to cater for the rising standard of living expectations of the population, Dr Visser said the conventional remedies for low productivity did not necessarily apply to the Republic.

"The usual method of increasing productivity is to increase the labour/capital ratio — to invest more in machinery per unit of labour."

But Dr Visser warned that this remedy was not always applicable to industries in South Africa.

"We need employment opportunities in South Africa so we must not over-invest in capital. We must be more discreet in the technology we buy to improve our profitability."

"What works to increase productivity in the United States will not necessarily do the same here," Dr Visser said.

"We must be much more critical in what we purchase. We must evaluate alternative means of increasing productivity."

He said South Africa stood to gain more in the productivity field by investing in people rather than machines.

"The problem is that the programmes for education and training in this country are abysmally bad and, until they are improved, investing in people will be a difficult process."

Dr Visser said available figures had conclusively shown one thing.

"Statistics indicate that an increase in capital formation has not increased the productivity of labour or the capital/labour productivity level. "In fact, labour productivity has fallen as capital has increased," he said.

White collar and blue in race for the noose

ARE OUR managers really that bad? Some fairly unflattering things have been said in high places over the past week about the quality of South African management — in particular that managers are principally to blame for woefully low industrial productivity.

Dr Jan Visser, executive director of the National Productivity Institute, said industry bosses had splashed out on masses of modern and sophisticated machinery which might have worked wonders for productivity and profitability in the United States but could have the opposite effect here.

Dr Visser said South African managers needed to invest more in people than in machines to improve output and profit margins.

Now a confidential study carried out by Dashing Office Furniture has given more damning evidence to the growing lynch mob preparing appropriate trees from which to suspend South African middle managers.

The study has found that even South Africa's lacklustre — by comparable international standards — shopfloor productivity has far outstripped what appears to be the beginning of a regression to the Stone Age in the productivity of this country's offices.

The growth in blue-collar factory productivity, according to the Dashing study, was 84% between 1969 and 1979, while white-collar office productivity over the same period rose only 4%.

(Before we reach for the Veuve Cliquot to celebrate the 84% figure, it is necessary to remember that South Africa's industrial productivity, measured by GDP a head in rands at 1975 prices, is 700% less than Switzerland's and, at R1 065, is considerably less than Australia's R5 486.)

Dashing's MD, Mr Winky

Simon Willson

Down to business

Ringo, does not pull his punches over his study's alarming findings.

"The reason for the 80% discrepancy between shopfloor and office productivity is two-fold in industry there has been many an innovation during that 10-year period whereas only the computer made a marked impact on the office scene.

"The second equally important reason has been the lack of staff motivation in the office environment."

Then Mr Ringo seizes his noose and looks menacingly for the nearest industrial manager.

"Here top management is largely to blame. Clerical staff are looked upon as workhorses, not as individuals with each being capable of performing a task at optimum efficiency if placed in the right niche."

Mr Frank Carlisle, executive director of the Production Management Institute, is even more forthright.

"Productivity in this country is regarded in the same way as sex when it's good it's very, very good, when it's bad it's still good."

"We need a completely new look at management in our manufacturing industries if we want to raise the disastrous levels of productivity in our factories."

Mr Carlisle says he has had some illuminating intellectual experiences with several senior

managers in top companies.

"I know people who occupy high administrative posts in big companies who can't even discuss basic management techniques — they can hardly spell forecast. No wonder our productivity is so bad."

"At nearly all levels my institute has encountered obstructionism from top production management and laziness from middle management."

It seems most administrative research bodies are united in their disdain for the abilities of South Africa's managerial class. Managers appear to be about as personable as tax inspectors with duodenal ulcers, and in a cyclical economic boom at that.

But, if this is the case, it can be taken as a sign of health in an economy making the protracted transition from a rural, commodity-based system to a more developed, service-oriented structure.

It has long been fashionable in Western Europe to moan about management — industrial unrest in the advanced Western economies has been blamed as much on management blundering as on trade union bloody-mindedness.

It might just be one of industrialisation's teething troubles.

Or maybe managers are just natural fail-guys when things go wrong.

Basic Principles of Forecasting
Dr. J. H. van der Merwe
University of Pretoria

GENERAL NEWS

'Productivity level threat to SA's trade'

RDM 22/7/80 247

Pretoria Bureau

THE Minister of Manpower Utilisation, Mr Fanie Botha, warned yesterday that the unsatisfactory level of South Africa's worker productivity seriously prejudiced its competitive position on international markets.

Mr Botha was opening a symposium on manpower training at the Council for Scientific and Industrial Research in Pretoria. It was organised by the National Productivity Institute and the US-SA Leadership Exchange programme.

Speakers said a massive training programme was needed for South Africa to maintain a reasonable growth rate in the next 10 years — and that over the next eight years, 5-million workers would have to receive "significant" training.

Mr Botha said South Africa would have to rely increasingly on exports if it hoped to provide jobs for its huge workforce.

He stressed the vital importance of raising productivity, and the need for more professionalism and greater co-operation among those involved in training.

The productivity increase per worker in South Africa was only a third of that in Britain and a fifth of the rate in Australia and Canada.

South Africa's productivity

growth rate was falling further behind these countries.

It was incorrect to say that increased productivity led to greater unemployment.

To combat unemployment, more and quicker economic growth was needed, and productivity was one of the most important elements of economic growth.

He added that from South Africa's point of view it was undesirable to use less labour by switching to capital-intensive methods instead.

It was clear more education and training would have to be provided.

In-service training centres were being under-utilised. There were only 11 registered training schemes for industry — and 323 approved private training schemes.

Mr Botha said the Government would have to consider ways of increasing the incentive for private industry to fulfil its responsibility in the field of manpower training and development.

Mr J A Lawrenson, of the Productivity Institute, said the labour force was no longer capable of achieving the economic growth expectation.

He called for greater emphasis on investment in "human capital".

The training capacity in South Africa was no longer able to support or sustain satisfac-

tory economic growth and expectations.

A personnel adviser, Mr Martin Westcott of the P-E Consulting Group, told the symposium a system of registration should be introduced for personnel managers and practitioners in manpower training and development, reports the Rand Daily Mail Labour Reporter.

Mr Westcott also urged a controlling authority to "vet qualifications and to formulate professional standards and codes of conduct" for the profession, and statutory recognition for people involved in personnel and training work.

Attempts to gain official recognition of the kind enjoyed by doctors and lawyers have been under way for some time.

However, some members of the personnel profession are bitterly opposed to the idea, arguing that it would impose unnecessary controls on practitioners.

They suggest that standards in personnel management and training are not as exact as those in fields such as medicine and law and that a registration system is open to abuse.

Mr Westcott also suggested that too few blacks were involved in training and personnel work and called for the repeal of legislation restricting the entry of blacks into these fields.

(b) axial loading.

PRODUCTIVITY FM 22/8/80
Looking to the future

SA's low productivity growth rate — less than 1% a year from 1972 to 1978 — makes it essential for industrialists to start finding long-term solutions

The country lags noticeably behind its main trading partners, which record the following productivity growth rates for the corresponding period: United Kingdom (1,5%), West Germany (2,3%), Japan (3%) and Taiwan (5%).

One of the reasons for SA's comparatively poor performance, experts contend, is a shortage of trained industrial engineers and industrial engineering technicians. A 1979 National Productivity Institute (NPI) survey revealed an estimated need for 3 000 industrial engineers (only 500 were employed) and 12 000 industrial engineering technicians (only 1 500 were employed).

But although the need is apparently there, the demand is not. SA employers have been slow to recognise the necessity of higher productivity and the value of the industrial engineer/technician in achieving this end. In the past, factors such as the availability of cheap labour and raw materials prompted a degree of complacency.

A newly launched campaign — designed



Iscor's Kotzee trying to improve productivity

to promote the effective use of industrial engineers technicians as a means of improving productivity and profitability — could play an important role in correcting this lack of awareness. The estimated R30 000-a-year promotion, an offspring of a SA Institute for Production Engineering CSIR seminar in February last year, already has the backing of major concerns such as Iscor, AFEXI and the Anglo Ameri-

can Corporation. Aims are to

- Create an awareness among potential students of the scope and benefit of industrial engineering as a career, and
- Create more training opportunities by encouraging industry to make a long term investment for itself by offering bursaries to industrial engineering students at universities and technikons.

Iscor, pioneer in industrial engineering training, Iscor initiatives in this field include the awareness programme in the hope of encouraging other sectors of industry to accept greater responsibility towards training. Iscor initiatives in this field include the establishment of an industrial engineering degree course in collaboration with the University of Pretoria in 1958 and a diploma course in industrial engineering at the technikons in 1978.

The main issue at stake is the necessity for the country to improve productivity, says Iscor GM, Floors Kotzee. 'We do more than most others regarding training of industrial engineers. We hope this campaign will inspire other industrialists to initiate their own training — for their own benefit and the benefit of the country.'

Another reason for participation in the campaign is Iscor's own need for more trained industrial engineers. The corporation currently employs 37 but needs four times that number to achieve optimal

productivity, says Kotzee.

Iscor's commitment to productivity over the years has paid dividends, he adds. During the 1976/77 and 1978/79 financial years, productivity showed an improvement in real terms of more than 5% a year. Productivity improvement during the 1979/80 financial year was responsible for an estimated cost saving of R38m over the previous year.

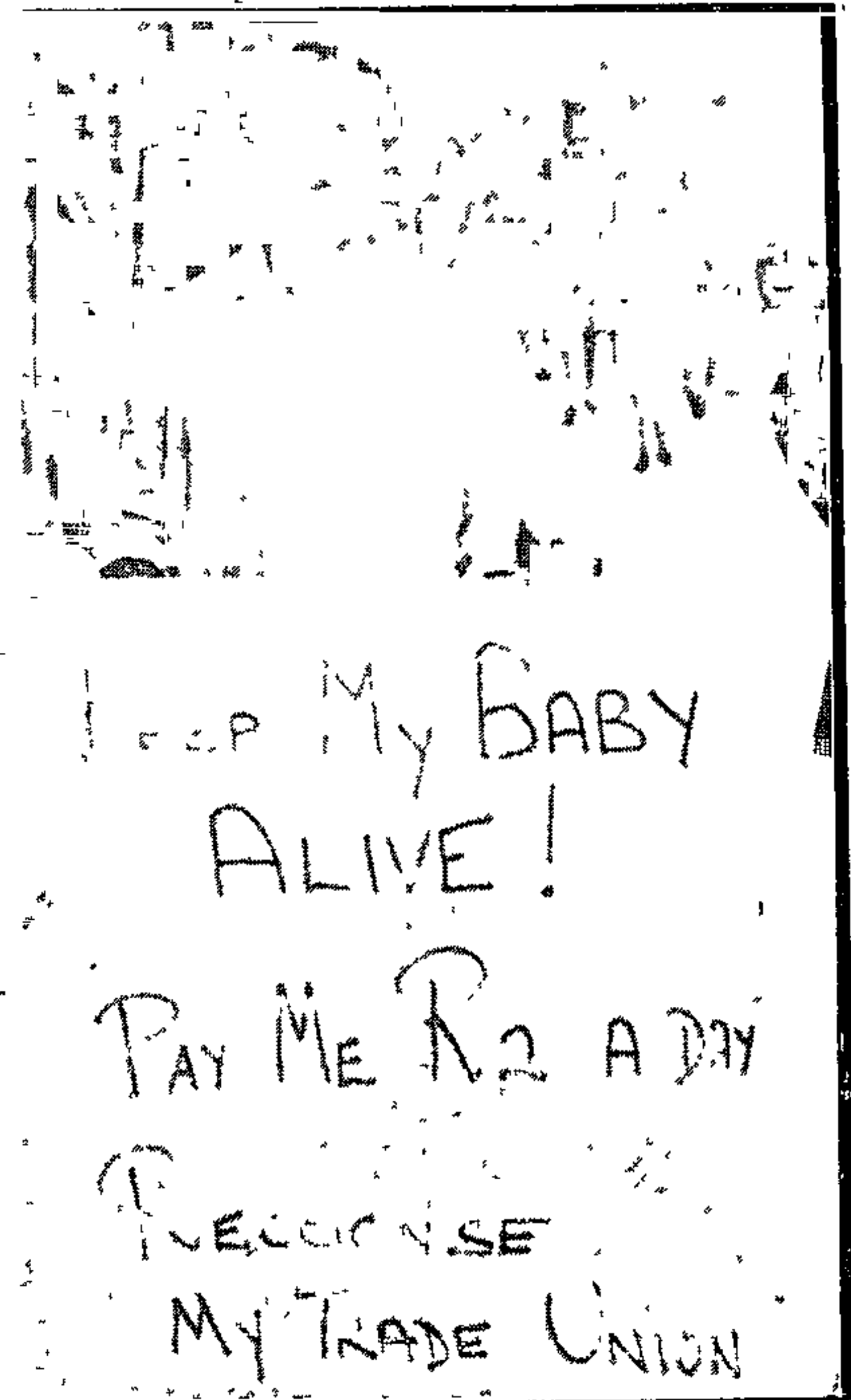
Iscor uses industrial engineers both in a staff advisory capacity and in its operating and service divisions, Kotzee says.

They play a major catalyst role purely because of their training and awareness of factors associated with industrial economies and productivity. All our projects are motivated on the basis of business economics and industrial engineers are our main advisers.

Kotzee believes the growing necessity for SA to increase her exports places greater emphasis on low production costs which means looking more closely at productivity. Industrialists have to decide for themselves where they stand and to what extent they want to allocate resources to improving the slice of the cake towards engineering and industrial engineering in particular. This awareness programme will help them to make that decision, he says.

A subcommittee, representing the NPI, AFEXI, Iscor, Anglo American and the Manpower Commission is organising the campaign which will include a TV documentary, radio broadcasts and a career brochure on industrial engineering. A per-

manent secretariat may be established to maintain the promotion and its sponsorship as well as to co-ordinate efforts of associations in industrial engineering-related fields.



● The photographs show (opposite page and above left) the 1957 Alexandra bus boycott and (above) Sactu women taking part in the pound-a-day campaign of the early 60's.

... boys and being bu-
... in the fields where
... died
Sactu took a leading
... in the boycott, tell-
... South Africans: "If
... eat the potato, you
... eating the blood of a
... low worker" Potatoes
... led up in markets all
... the country and rot-
... in the fields, and sym-
... thetic merchants refus-
... to stock their shelves.
The boycott was called
... three months later,
... the Government was
... quently forced to in-
... duce changes in the
... labour system
After the banning of
... ANC in 1960 it be-
... important for Sactu

to extend its role and the
message of the Congress
Alliance further afield,
embracing other sections
of exploited workers.
But as with other
groups in the Alliance,
State repression against
Sactu became increasing-
ly severe.
Officials of the move-
ment were banned, re-
stricted, detained, banish-
ed or deported.
It was in the face of
this repression that Sactu
decided to go under-
ground, and this is how
the organisation operates
in this country today,
still, as it has for the
past 25 years, spearhead-
ing the workers' struggle

'Political change will make SA more productive' - expert

CHANGE the present South African political set-up and black productivity will improve, a well-known industrial psychologist declared this week.

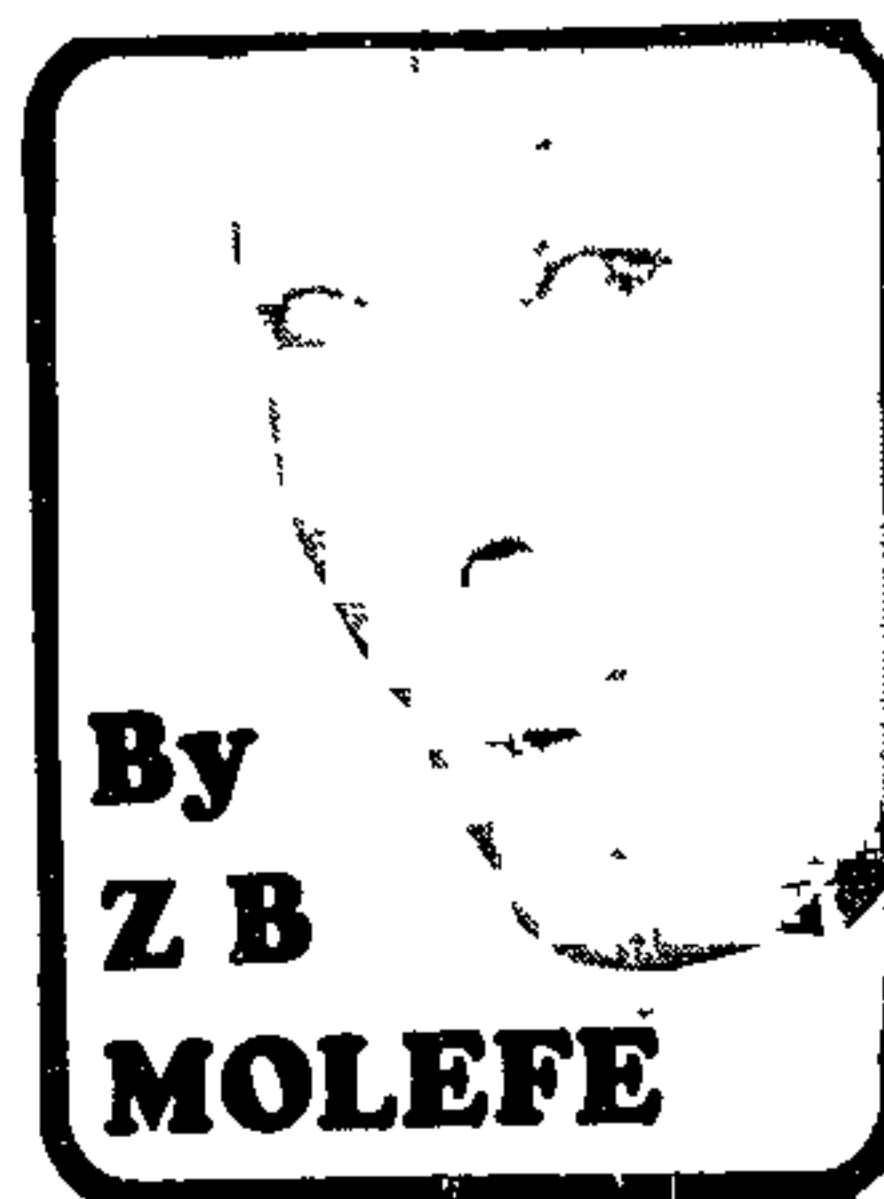
Professor Christopher Orpen, head of the University of the Witwatersrand's Division of Industrial Psychology, also argued that the present political system does not allow high levels of productivity because it leads to strikes, stoppages and sabotage.

Professor Orpen told SUNDAY POST: "Since high levels of productivity are impossible under the present political set-up, the only long lasting and really effective remedy for the current low level of black productivity is to change the political set-up."

A necessary condition for motivation, Professor Orpen continued, is that black employees at least value the rewards offered to them for performing well: "Only if they are given the kind of incomes they desire will they be motivated to perform really well."

"To know what employees really want, it is necessary either to carry out a survey or to know them well on a personal level."

"Because blacks typically distrust and fear whites, they are seldom prepared to tell the truth in surveys, especially if they feel it can be used against them. This holds true even when they are



told that their responses are anonymous."

To get to know someone really well requires close and frequent interaction with them on a basis of equality, on and off the job, Professor Orpen continued.

"Whites are effectively prevented," he noted, "from getting to know blacks by segregation laws and informal group pressures. Hence the political set-up makes it very difficult for whites to get to know what their black employees want from their jobs."

Prof Orpen also said: "The current political climate makes it impossible for the usual strategies for improving motivation to work effectively with black employees."

Other points raised by Professor Orpen were:

- The political conflict between whites and blacks does not encourage whites to have confidence in their black employees which makes them reluctant to release the control they exercise over workers

- Because whites and blacks are competitors for political power they tend to view each other with suspicion. In most cases white actions tend to be seen as having an ulterior motive by the blacks ("a trick to keep us down") and black action as being a cover for something else by the whites "a scheme for getting more power which will be used against whites").

- Because whites and blacks have vested interests in different goals — whites in maintaining the status quo and blacks in radical change — it is difficult to reach consensus on ultimate goals.

- Black supervisors who get on well with their white bosses tend to be rejected by their black subordinates and vice-versa.

- Whites, because of their dislike of dealing with militant blacks, tend to pick supervisors who are "yes men".

- It has been shown that being at the receiving end of discriminatory laws and practices produces alienation, a lack of self-esteem and a feeling that what happens to one is due to factors beyond one's control.

- Because of the racial situation most blacks, especially supervisors, face conflicting demands from their white superiors and black peers or subordinates. If they satisfy their white bosses they are seen as "stooges" by other blacks who will not co-operate with them.

C. Times 2/9/80
Warning on SA productivity

Own Correspondent

PRETORIA — South Africa would have to increase its productivity and black workers would have to be educated as fast as possible, the Minister of Manpower, Mr Fanie Botha said yesterday

Replying to resolutions at the Transvaal National Party Congress, he said that unless productivity was increased, South Africa's goods would become too expensive to compete on the international market

"We must educate our people

more rapidly," he said

South Africa's productivity was only one-third of Britain's and only one-fifth of Canada's and Australia's

"With the whites constituting only 16 percent of the work force, South Africa's ability to compete on the international market is being stretched too far "

He said that only 38 percent of the 5,5 million workers in industry had been educated

(Report by Ormande Pollok, Devonshire Place, Durban)

Volkskas calls for higher productivity

By Pieter de Vos

Volkskas raises a strong plea for higher labour productivity in South Africa in its latest economic review

An improvement in this field deserved the full attention of the government and businessmen, the bank said

As a result of low productivity, South African living standards rose substantially less than those of its major trading partners in the past nine years, the bank said

Among countries such as the US, West Germany, Britain and Japan, South Africa's labour productivity grew the least. Between 1970 and 1979, labour productivity in Japan rose by 39 percent, in West Germany by 34,6 percent, in Britain by 16,5 percent, in the US by 8,2 percent and in South Africa by 7,5 percent

The rate of increase should be higher in South Africa so that the country could improve its competitive position in international trade, Volkskas said.

From 1973 to 1979 the real gross domestic product in South Africa increased by 20,1 percent. Against this, estimated employment increased by

about 12,6 percent. This meant that labour productivity rose by 1,09 percent annually in the past six years

Though this might be better than that of the US, it was worse than most of the country's other trading partners

South Africa would therefore find it increasingly difficult to compete with foreign-produced goods and services. This in turn would have a negative influence on the growth rate and employment

"There are those who take the view that it is a disguised blessing that South Africa's productivity growth is so low, because it helps to relieve unemployment," the bank said

But this was a short-sighted view, according to Volkskas.

In South Africa the low rise in productivity was not accompanied by a low rise in wages

In fact, some startling facts emerge from the report

In the electrical machinery sector, labour productivity decreased by more than 35 percent. Wages (measured as labour costs per unit) rose, however, by more than 370 percent

In the food sector of the economy, labour productivity rose by but 1,6 percent in the past nine years against a rise of almost 200 percent in the same period

Only in the footwear sector was the rise in productivity higher than the rise in wages. At 73,2 percent, the increase in productivity was the highest recorded in the entire South African manufacturing industry

Compared with this wages in the footwear industry rose by only 49,9

percent — the lowest rise in wages in the manufacturing sector

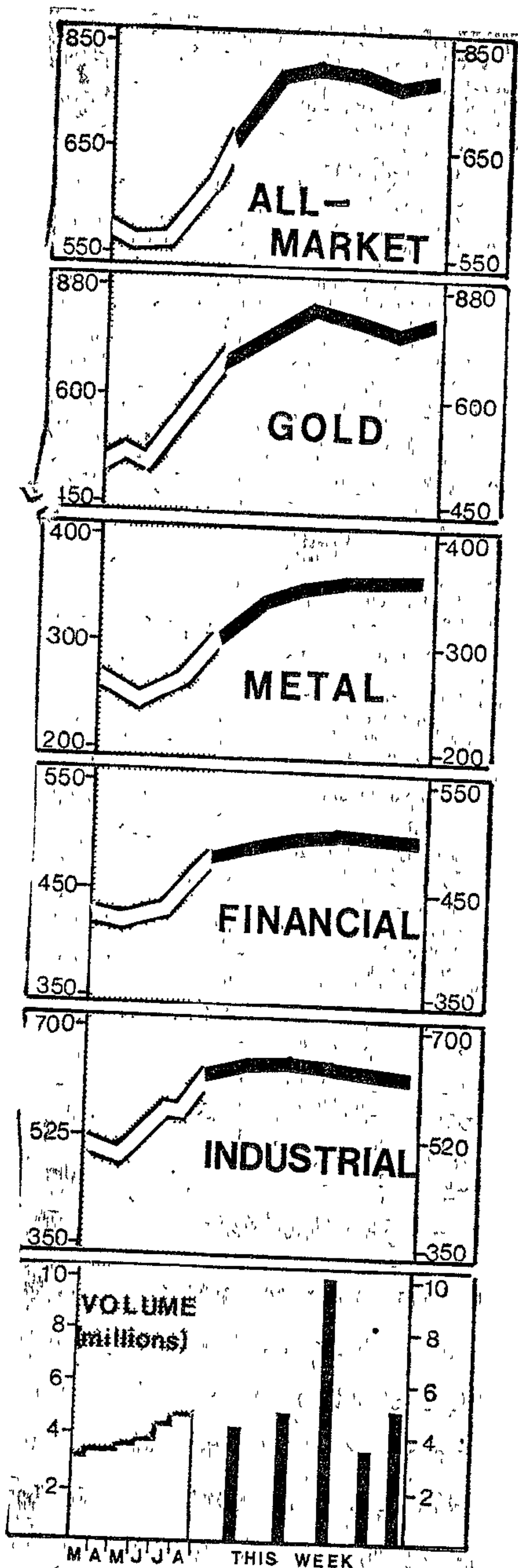
Export figures may show an increase, but they pointed to an increasing demand for our raw materials, and larger export concessions, rather than any improvement in productivity.

Incentives and control measures could at best yield temporary results.

There was no substitute for higher productivity to raise the welfare of the country over the long term, Volkskas said

Percentage change in labour productivity and labour costs in the South African manufacturing industry between 1970 and 1979

Sector	Labour	
	Productivity	Unit Labour Costs
Food	1,6	195,8
Beverages	51,6	102,7
Tobacco	41,2	159,8
Textiles	-3,7	207,5
Clothing	3,5	124,2
Leather	-6,9	164,7
Footwear	73,2	49,9
Wood	-4,4	165,7
Furniture	28,0	97,5
Paper	21,5	141,6
Printing	3,5	121,9
Rubber	6,8	175,7
Chemicals	31,2	142,2
Non-metallic mineral products	-14,3	246,1
Basic metals	41,5	129,6
Metal products	-6,1	212,8
Machinery	-21,3	253,8
Electrical machinery	-35,6	370,3
Transport equipment	-18,5	302,3



Graphs by Lindsey Sanderson

These graphs chart the performance of The Star share indices for major divisions of the Johannesburg Stock Exchange over the past week, together with volumes of trading. The shaded areas of the graph cover the average of the previous six months' dealings for comparison.

REALST PROFIT VARIANCE

SA MANUFACTURING SECTOR

Sector of origin of input into manufacturing	Estimated value of inputs of materials		Value of contribution to profits by each input originating from efficiency and price changes			Profit
			Resource efficiency	Price recovery	Capacity utilisation	
	1978	1979	Rm			
Total materials	15 662,7	18 315,1	984,1	(502,5)		481,6
Total services	1 330,8	1 558,1	2,6	36,3		38,9
White labour	2 529,2	2 966,1	150,0	(80,8)		69,2
Black labour	1 405,6	1 655,2	73,1	(41,5)		31,6
Other labour	725,2	845,8	29,5	(5,1)		24,4
Working capital	1 220,3	1 483,2	(6,7)	(12,1)		(18,8)
Fixed capital	1 920,3	2 135,8	(124,1)	162,4	130,5	168,8
Total resources	24 794,1	28 959,4	1 108,5	(443,3)	130,5	795,7
Production	24 794,1	28 755,2				
Profit variance	0	795,8				
% return on investment	10,81	14,27	4,82	(1,93)	0,57	3,46

Sources: Federated Chamber of Industries
National Productivity Institute

years there is no sound relationship between the two, the conference was told.

To obtain a better understanding of productivity, the report outlines a new Resource Allocation Strategist (Realst) model developed by the National Productivity Institute (NPI) to measure the changing profit contribution of all inputs in the production process. Adapted from official Department of Statistics figures, the report believes the Realst model 'not only addresses the problem of labour productivity but also the productivity, price recovery and cost effectiveness contributions of materials, services, capital, energy and other resources in the manufacturing process.

Its advantage, says the FCI's Jan de Jager who compiled the report, is that by quantifying the productivity of different manufacturing inputs, it enables the individual firm to identify production problems. Remedial action can then be taken, with a commensurate boost to productivity.

The accompanying table is an abbreviated version of the model's findings. The 'resource efficiency' column relates changes in the physical factors of production to changes in output of the final product, i.e. it measures the efficiency of production inputs.

The 'price recovery' column quantifies the extent to which manufacturers absorb their cost increases rather than pass them on in the price of their product. The 'capacity utilisation' figure shows the total amount of fixed investment undertaken in response to stronger demand and the 'profit' column reflects the net difference of these figures.

Thus while conventional productivity analyses indicate that production per labour unit increased by 4,4% in 1979 (and 6,5% in the first five months of 1980), the Realst model shows that in 1979, better utilisation of labour contributed R125,2m to total manufacturing profits. Wages of

white workers, for example, rose by R80,8m and contributed R150m in efficiency gains to yield a profit of R69,2m.

Similarly, the FCI report notes that manufacturers last year were able to absorb a high proportion of their cost increases because of improved sales and production volumes. The Realst model claims to quantify this to an exact amount of R443,3m while R1 108,5m was saved because of higher productivity.

The net effect of cost absorption, improved capacity utilisation and higher productivity is given as an increase in profit of R795,7m, the report notes, and this has had the effect that profitability increased from 10,81% in 1978 to 14,27% in 1979.

Speakers at the seminar discussing the report were critical of industry's attempts to improve productivity. The lack of research and innovation here was cited, as was the cost and time wasted in producing sub-standard articles. One speaker claimed that quality costs in SA are as high as 20% of turnover compared with a world average of 5%.

NPI's Basie Kleu highlighted another problem that the swing to capital intensive production causes declining capital productivity, especially where it would be more efficient to use labour. 'We have to consider seriously', he said, 'how production technology employed in manufacturing is influencing the whole matter'.

PRODUCTIVITY 247 New measurement

Economic growth in SA could reach 7% per annum if productivity were improved, claims a report presented to the Federated Chamber of Industries annual conference in Johannesburg this week. But with earnings per employee having greatly exceeded rises in productivity in the last few

Making less of more

The average productivity level of the South African worker is currently about one third of British workers, and about one fifth of the Canadians and Australians.

Citing these ratios, Sanlam's October economic survey claims they are particularly disturbing, as the key to solving SA's endemic unemployment problem lies in the ability of local industry to compete on international markets.

The survey points out that "SA's labour productivity performance during the Seventies was extremely disappointing." This was partly due to the low 3,5% average growth rate that prevailed during the last decade, and partly due to the fact that the increase in capital intensity in the last few years was largely in the public sector.

Most of this capital investment was geared towards extending the economic infrastructure of the country, which implies long-term benefits. But "the annual yield on capital invested in this sector is among the very lowest in the economy." Hence the vicious circle of low yields, low growth and productivity improvements more sluggish than the normal effects of capital intensification on capital and labour returns.

Since 1978, however, labour productivity in the manufacturing industry has improved considerably. Labour costs per unit have risen only 7% per annum in the last two years as opposed to about 22% pa in the previous two, which constitutes one of the main reasons for the steep rise in company profits being witnessed.

Mining costs on the other hand, have risen considerably in the past few years. Labour remuneration has increased sharply since 1972, with labour costs per unit running in tandem, accompanied by "sustained poor productivity performance." The survey adds that the mining industry has been cushioned to some extent by the equally sharp rises in commodity prices, but that long-term considerations demand rigid restraints on costs.

The construction industry, however, takes the prize for the worst productivity performance, with labour costs per unit of output far outrunning the overall building costs index. Due to the cyclic vulnerability of this sector, and the fact that its fluctuating labour needs entail a high level of firings and rehiring, its labour productivity index has declined steadily since 1972.

With a large portion of domestic industry currently running at close to full capacity, the need to increase productivity is evident from the pressures being placed on SA's inadequate pool of skilled labour. Statistics Department figures show that employment levels increased by about 0,3% in the May/July period, against a 10% increase in overall earnings. These figures cover a restricted section of the market, but it is unlikely that the overall trend is different.

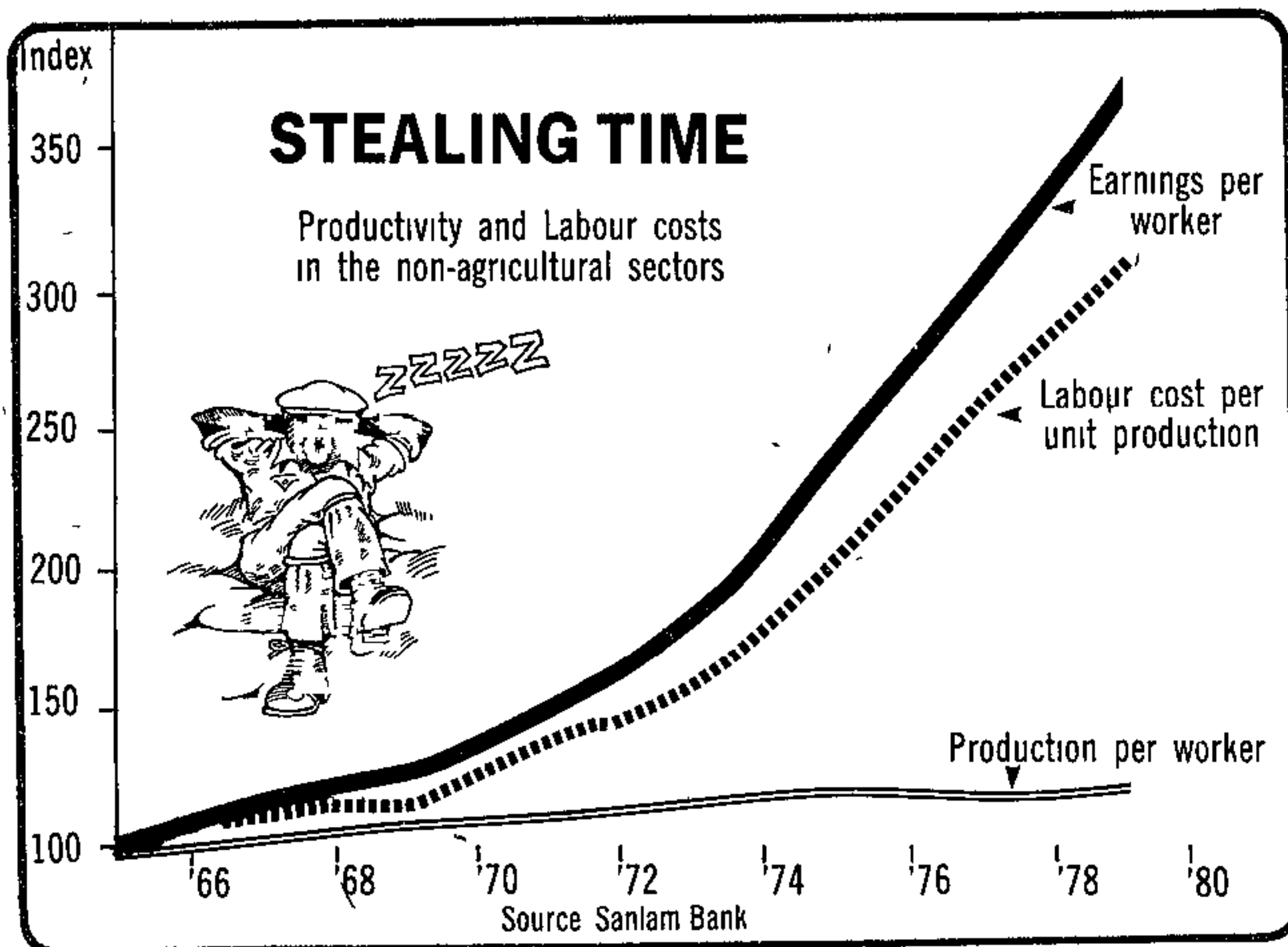
The trend is illustrated further by the fact that in the mining sector, white earnings increased by 12% from May to July against a 2% increase in employ-

ment. This six-to-one ratio must be compared to a 13-to-one ratio for black labour in the same sector, where employment rose only 1% in the same period.

White earnings in manufacturing rose 11% against a 1% increase in employment levels, compared with a 14% rise in black earnings against a huge 6% increase in employment. And in construction, the employment to earnings percentage increase ratio is even more strongly biased against blacks (ie unskilled labour), being 16-to-one.

These figures also indicate that — close to the peak of an economic upswing — employment is increasing by 1,2% annually, less than half the rate of population increase. This in itself is a clear recipe for future economic and political problems.

The Sanlam economic survey does, however, point to gathering indications of productivity improvements, currently increasing almost twice as fast as last year. The long-term solution, it concludes, lies in better education and training, especially industrial training, on which SA spends less than most countries. In stating this, it adds another voice to the chorus from organised commerce and industry on a familiar theme.



SA made more goods in 1980

DD 14/11/80

(247)

JOHANNESBURG — The physical volume of production in September 1980 was 15 per cent higher than in the comparable month of last year, according to the latest figures prepared by the Department of Statistics.

The index for last September was 248,7 compared with 215,2 the year before.

For the year to September the average index was 220,6 which is 10,1 per cent higher than the average for 12 months to September.

Sectoral figures are available only to August and compared with a year ago the biggest increases took place in the rubber industries (65,7 per cent) no doubt spurred on by an expanded mining demand for belting, motor vehicle industry (34,4 per cent), printing and publishing (37 per cent), plastics (18,6 per cent), and the clothing, textile, shoe and furniture industries all produced about 15 per cent more this year than last. There was a minor decline in the output from food factories.

The increase in consumer goods production represents an increase using existing capacity and overheads. Therefore it was more profitable.

This premise is confirmed by figures produced by the Department of Statistics — DDC

Scanned 9/16/81

Kohler measures profit against ~~247~~ each worker 247

The effect of the high inflation rate on real profit growth could only be offset by increasing productivity and cutting costs, the chairman, Mr Basil Landau, told Kohler shareholders at the company's annual general meeting in Johannesburg yesterday.

Mr Landau said that shareholders would have noted that the recently published Kohler annual report for 1980 included, for the first time, a measure of the company's productivity in terms of profit of each worker

This showed that profit before interest for each group worker had more than doubled over the past five years, from R2 983 in 1976 to R6 128 in 1980

In view of its successful productivity improvement programme, and to the attention that had been given to asset management in general and strict controls on inventory levels and cash flow in particular, Kohler was confident of maintaining its momentum

Mr Landau said that figures for the first quarter of the current financial year gave every indication that his prediction in the annual report of continuing satisfactory growth would be fulfilled

The major investment made last year in organic expansion was already beginning to pay off, with the new plants all in production. Among these is a major corrugated container factory to be opened by the Minister of Industries, Commerce and Tourism, Dr D J de Villiers, next month.

"This plant exemplifies

our commitment to productivity in several respects. It incorporates the world's most advanced production and handling technology in the corrugated field, setting new standards of speed and efficiency. It is capable of producing a corrugated board which is as strong as or stronger than anything else available in South Africa — yet it uses lighter and even wastegrade papers," Mr Landau said — Sapa.

Bricklayers lay into Fanie

RDP
NM
17/8/81
(S) 247

*'He needs his head read'
comment' after 2 000
bricks-a-day suggestion*

Mercury Reporter

BRICKLAYERS have reacted to criticism from the Minister of Manpower Utilisation, Mr Fanie Botha, that they should be laying at least 2 000 bricks a day, with a sharp 'he needs his head read' — as one put it

Mr Botha had said the low Durban average of 280 bricks a day showed 'somebody was riding on somebody's back'

Mr James Hale of Durban, a bricklayer for 52 years who has worked in five countries, said yesterday 'We're always the mugs that get the flak because the people who criticise us haven't got the intelligence to measure a fair day's work from anyone else in the building trade — any fool can count the bricks in a wall'

He said it was meaningless to speak of an overall average in bricklaying because of the varied nature of the work

'The only time I could lay 2 000 bricks a day is in

an outfall sewer which has walls one and a half bricks thick with no doors windows or openings of any kind and allows absolute continuity of work On the other hand, if I worked on Gothic or parabolic arches, I could not lay even 200 a day'

He said 500 bricks a day was average for a bricklayer building a 'typical' suburban house Five other bricklayers agreed with this figure and all thought 2 000 a day was impossible

Mr R Rautenbach, director of the Master Bricklayers' Association, said he was 'staggered' by the minister's statement

'I don't know where he got his figures from or what type of bricklaying he was referring to There is no such thing as an overall average anyway Building rates depend on all sorts of factors, such as whether you're using common or face bricks, and on how many doors, windows and corners there are,' he said

ES HALE . 'We're always the mugs
that get the flak'

Workers must pull up socks to keep living standards

Workers are heading for a decline in living standards if they do not pull up their "productivity socks"

The standard of living or the consumption a head — is directly related to the production a head, explains Dr Jan Visser, executive director of the National Productivity Institute (NPI).

Our productivity situation is, quite frankly, worrying," Dr Visser says.

he nation is a long way behind main trading partners in gross domestic product a head. "The figures are something like one-third that of the United Kingdom and one-sixth that of the United States and Germany."

CRUDE MEASURE

his is a crude measure of labour productivity, admits Dr Visser. A more accurate indication would be the GDP for each economically active person, but the business cycle causes variations in the economically active population in different countries, and this would hinder interpretation of the results.

Nevertheless, the GDP a head figure is accurate enough to show that national productivity performance does not compare favourably with that of most other countries. More alarming is the growth rate in the GDP a head. Comparison of 26 countries shows that the national growth rate GDP a head from 1972

to 1979 exceeded only those of Zambia and Switzerland, both registering negative growth rates.

Dr Visser sees two main reasons for the country's productivity problems. The first is the lack of skills — especially management skills. Where South Africa has about 42 workers for each manager, the proportion in the US is six to one, in Japan and Australia 12 and 14 to one respectively.

A second reason is the lack of a "productivity culture". Abundant national wealth has meant that people have not had to struggle to produce. "More is no 'n dag" has almost become a way of life.

The solutions sound simple enough — train people to have the necessary skills and institute a programme to educate children from pre-school level to appreciate the importance of productivity. However, it is the magnitude of the effort required to do this that is problematic. "Manpower 2000 made people aware of the need for training," Dr Visser says, "but how much has been done?"

"I estimated some years ago that the country needed to train 5-million people from 1979 to 1987, but two years have passed and we have barely started."

"We need 35 in-service training centres to meet the need for skilled workers. There are nine

at present." Budget the Government announced increased subsidies for training programmes "but we still have a long way to go."

Instilment of productivity consciousness has to be an even longer-term programme. Mothers will have to teach a new generation of children, just as they teach things like hygiene and thrift.

Dr Visser insists that the improvements in productivity can come from labour itself. He feels that a type of productivity bargaining could be built into wage negotiations. People could be rewarded from good productivity performance or penalised for a drop in productivity.

INSISTS

"Paying people less, as has happened in South Africa in recent years, is a sure way to fire inflation," he says.

Dr Visser insists that the key to better productivity is good management. "If an operation is not managed properly, labour can do little to help."

Increased productivity also comes from better utilisation of capital and raw materials — and again it is management which is the determining factor.

NPI executive director Dr Jan Visser: "Our productivity situation is worrying."

Dr Visser sees it as the responsibility of the NPI to make management aware of the situation, and the institute's programmes are geared to this end.

For example, the NPI conducts sectoral surveys in which it studies and compares the productivity of companies in different sectors of the economy.

Reasons for good or bad productivity are identified and firms informed of the results.

Surveys have recently been completed in the agricultural sector, the textile industry and among municipalities. A similar programme is being con-

sidered for the gold-mining industry. Another important activity of the NPI is its service departments.

A human-resource development programme, for example, is aimed at training people to train others. This is done through lectures and tape-slide programmes. Other service departments cover administrative productivity, marketing, economics, financial analysis and industrial engineering.

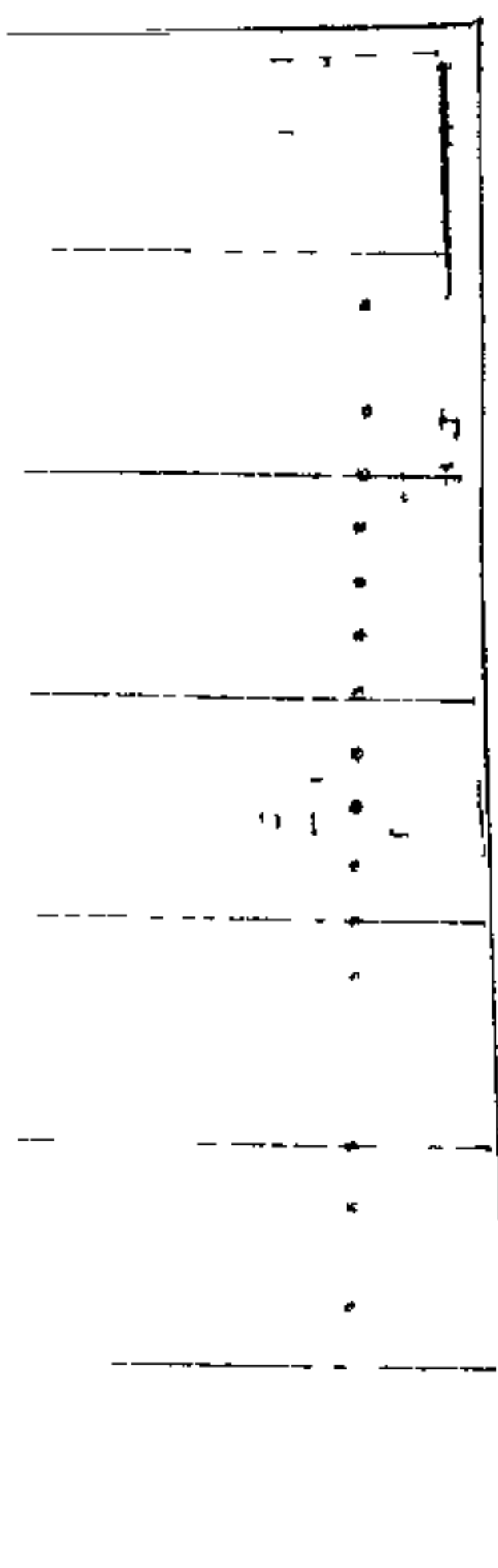
Productivity units have been established for the clothing, canning, furniture, motor repair, textile and the metal and engineering industries, as well as for civil engineering and construction and municipalities. These have been particular-

ly successful with in-company productivity improvement projects.

Awareness of the need for better productivity is also promoted through a publicly programme and a quarterly newsletter distributed to industry and individuals.

A major awareness campaign is the presentation of National Productivity Awards in recognition of outstanding achievements in the field of productivity improvement.

What is the potential for improvement? On a national level, Dr Visser is convinced that productivity could be increased by half — given effective management and full utilisation of manpower and other resources. — John Bentley.



Industrialists blamed for low productivity

Star 25/9/81 123 247

Own Correspondent

DURBAN — Productivity in South Africa lagged far behind the levels attained by the country's main trading partners and much of the blame lay with industrialists who had failed to provide adequate training for employees whose basic education "might have been just about nil."

This was said in Durban last night by Mr Ken Lunn, president of the Natal Chamber of Industries, at the chamber's annual dinner.

"Unless we, as industrialists, work out training programmes to ensure optimum production from

our machinery, we will not be successful in expanding industry to provide employment for people who are unemployed at present and the school leavers who will be coming on to the market annually," he said.

In assessing South Africa's productivity, Mr Lunn said it was only about one third of Britain's and one sixth of that of the United States and West Germany. From 1972 to 1979 the gross domestic product a head, compared with 26 other countries, had exceeded only those of Zambia and Switzerland which "both registered negative growth rates."

Mr Lunn urged industry leaders not only to train workers but also them-

selves — particularly in communication and the art of negotiating with trade unions.

Over the past year Government legislation had permitted black trade unions to become registered. Whether registered in terms of the Industrial Conciliation Act or not, such unions were a force to be recognised.

It was possible that many employers were "ill-prepared for dealing with this new organised labour force" Mr Lunn appealed to them to ensure they were properly trained in dealing with claims and disputes.

"It will be absolutely necessary for an employer, or chairman of an employer association to have done his homework and

prepared a stand. It is no good thinking the people with whom you are going to negotiate are not knowledgeable or capable. Never underestimate and always investigate."

Turning to the economy, Mr Lunn said inflation remained a major problem but warned the Government of the dangers of "overkill" in efforts to control it.

"I realise we cannot live with high inflation in South Africa, especially when our main trading partners' inflation rates significantly lower. But we must avoid being followed by growth."

Such rapid change, he warned, would lead to unemployment and its attendant problems.

PRODUCTIVITY —

1982; 1983; — 1984

JANUARY — DEC.

Management key to productivity

By LEICESTER SYMONS

EFFECTIVE management is the most important factor in the improvement of labour productivity, according to Mr Peter Whitfield, chairman of Datsun-Nissan

For the motor industry it could ensure future growth at a greater rate than that of the economy as a whole through making the cost of motoring relatively cheaper, he said in Johannesburg

He was speaking, as president of the Institute of the Motor Industry, at the introduction of a three-year national diploma course in motor business management. The course has been developed by the IMI and the Association of Technikons of South Africa to provide a balance between theoretical and practical training

It consists of three years of training in motor business management, two years each of motor industry management accounting and motor business marketing, and a year each of financial accounting, economics, law in the motor industry, mercantile law and applied business economics. Four of these subjects will be dealt with in each year of the course

The first course will start on January 18. It is being offered, in the form of part-time evening training, at eight technikons and by correspondence through a ninth, the Technikon RSA in Braamfontein. The part-time training is available at the Pretoria, Witwatersrand and Vaal Triangle technikons, the Natal and M L Sultan technikons, the Cape and Skiereiland technikons and the Port Elizabeth Technikon

The total production of the Japanese motor industry in 1960 was about 460 000 vehicles, said Mr Whitfield. In 20 years it had multiplied 20 times

There were several reasons for the growth, but the main one was improved productivity. This was reflected in relatively lower prices. In 1960 a car cost more than three years' earnings in Japan, but by 1980 the price was less than six months' income

In SA last year motor vehicle production was about the same as Japan's had been in 1960, and the average annual wage was about a third of the cost of a new car. The South African industry could not hope to match, in the next 18 years, the achievements of the Japanese industry over the past 20

But if the increase in general motoring costs could be kept below the average rate of inflation "we will be amazed at the growth rate of the motor industry in this country"

Oil target

CARACAS — Venezuela, Opec's second largest oil exporter, expects to sell an average of almost 1 800 000 barrels a day of crude oil and refined products on world markets in 1982, says Dr Humberto Calderon Berti, the Energy Minister — Financial Times

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Productivity

crisis scary

254 247 182 149
S. Times
21/3/82

THE wages of South Africa's unskilled workers have been increased to a point where labour intensity in industry is a certain formula for uncompetitiveness.

This is because the wage increases at the lower levels have taken place with no relation to productivity, according to Dr Charles Skeen, newly elected president of the SA Institution of Civil Engineers.

At the annual meeting of the institution this week, Dr Skeen pointed out that Japanese, German and American workers produce in excess of \$25 000 per worker per annum.

South African workers produce a mere \$4 000.

He added "In Japan, large numbers of workers operate in service functions and operate competitively in that

By John Spira

function because they have achieved an increase in productivity of approximately 8% per annum — a truly remarkable figure.

"There is some doubt as to whether we in South Africa have achieved 0.5% per annum.

"It is a fact that in some activities productivities have actually dropped."

He rejected the solution that technology-based jobs he made more labour-intensive and considered that industrial decentralisation policies provide no more than an insignificant part of the solution.

"Job creation must be sought at a very basic level, starting with agriculture, and this can only take place in the underdeveloped areas of our country.

"I believe this can be done without jeopardising the large-scale food production

which takes place in the more developed areas using more mechanised methods."

He pointed out that the need for placing a new emphasis on agricultural development is dictated by the fact that production rates six to seven times those now prevailing in the underdeveloped areas are easily attainable.

This warrants even greater attention when it is estimated that the cost of creating a job in the underdeveloped areas in agriculture is around one-third of the least expensive job created in industry in these areas.

He stressed that this is the most important area to which the institution should direct its attention.

Another vital problem area, he continued, was the lack of effective communication between engineers in the

private sector and their counterparts in the public sector.

Effective communication cannot happen while the present earnings disparity exists.

The conditions of employment must be such that an easy movement of individuals between the public and private sectors is possible.

A "slimmed down" public sector, super-competent and suitably remunerated, must enjoy all-round respect when entrusted with the conceptual planning of national projects which are to be managed and executed by the private sector.

In effect, Dr Skeen concluded, a steeply inclined public sector hierarchy with a peak comparable to that of the private sector must operate in conjunction with the private sector.

In this way, two-way horizontal mobility as an essential to success will be facilitated.

Productivity shock for SA workers

Industrial week 6/4/82

247

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By Priscilla Whyte

IN a shock disclosure last week, a leading industrialist said that the productivity of one Taiwanese worker was equal to that of seven SA workers in the textile and clothing industry.

Christo Wiese, chairman of Pep Textiles, was addressing delegates at the Natcon 82 conference in East London.

Wiese said "It is disquieting that in the textile and clothing industry the average labour turnover is in excess of 60% annually

He claimed that the Pep Textiles group have managed to contain labour turnover to just over 10%.

He says that as SA is a major supplier of foodstuffs to Africa, there is no reason that she should not develop into a major supplier of textiles and clothing. He cited the example of SA's military self sufficiency leading her to be poised to become an exporter of arms.

Jan-Henk Boer, divisional manager of the National Productivity Institute tells Industrial Week "In the first quarter of 1981, 9,1% more workers in the clothing

industry produced 11% more in output but in the second quarter of 1981 the wage per worker increased by 11,7% and his output only improved by 2,4%."

Boer says that CLIPA the Clothing Industry Productivity Association is trying to persuade a sample of SA manufacturers to co-operate in a brief survey on productivity.

The last detailed studies were carried out in 1972 and 1974.

He says a draft report is being discussed with the National Clothing Federation on SA fabric utilisation and the findings should be available within the next two months.

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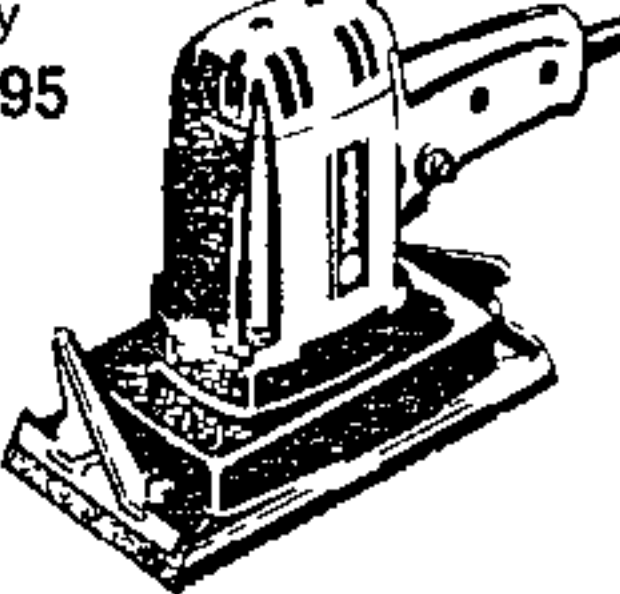
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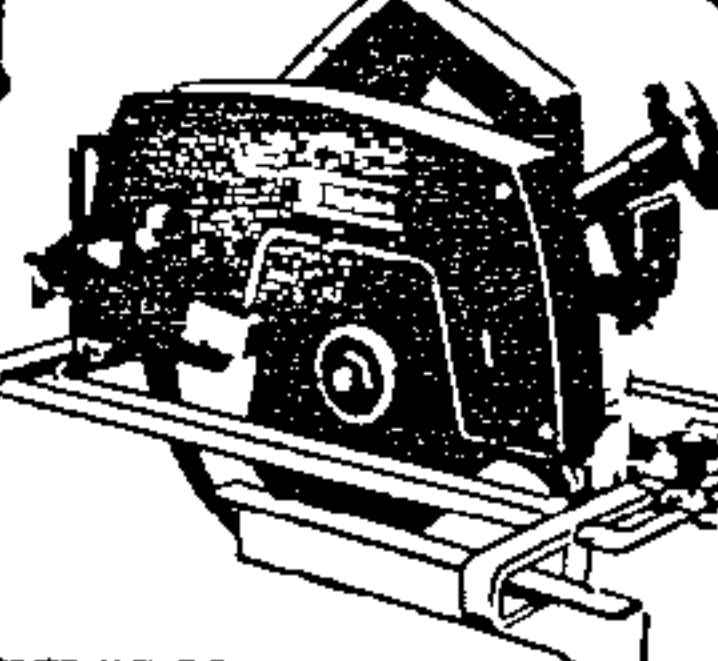
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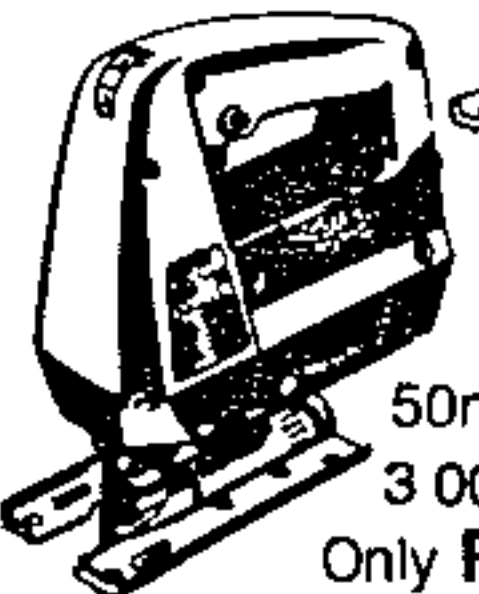
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2 speed
impact drill
450 Watt
Only R79,95



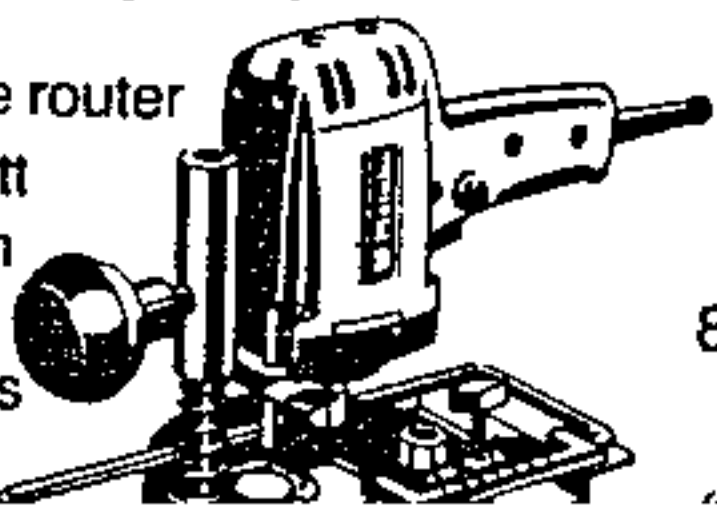
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40mm cut circular
saw tungsten blade
Only R99,95



50mm jig saw,
3 000 strokes 350 Watt
Only R84,95



Plunge router
400 Watt
25 000 rpm
with accessories
Only



82mm planer, tungsten
blades (reversible)
Only R149,95

Black coal miners raise productivity

LONDON — The

By NEIL BEHRMANN

Economist Intelligence Unit is enthusiastic about South Africa's coal prospects in the coming decade

It says in a special report, Steam Coal In Southern Africa (price £120), that there will be an impressive increase in South African export capability in the next 10 years

The report says the fall in oil prices may reduce coal's price advantage as a power station fuel, but the decline in energy costs will stimulate economic recovery and electricity consumption. When this happens, coal producers, especially South Africa, will benefit from the increase in demand

The study says the increase in wages of black miners has been accompanied by a significant improvement in

productivity

Between 1970 and 1978 coal production in the Transvaal and Free State rose by 70%. This was achieved by increasing the labour force by 25% and by raising productivity by 35%.

The report says the increase in black productivity was markedly better than that of whites

"The number of whites rose by 73% on the mines, while black employment rose by only 21%."

But "the proportion of total output per white employee remained virtually unchanged, while that of blacks rose by about 40%."

Mechanisation explains the difference in productivity between the two groups. More whites were employed to service machinery and fewer blacks were used for

unskilled labour. Thus fewer blacks produced more coal.

The study says, however, that better training and education improved the work standards of black miners.

Overall production a head in SA is twice that of mines in Europe.

Many analysts contend that South African coal costs are lower than competitors because wages are low. But The Economist says costs are low because the coal is far more accessible than in competing countries.

"The main reason for the comparatively low cost of South African coal is that it tends to lie in thick seams that are close to the surface," says the report. Mechanisation is also lowering costs on SA mines.

In 1975 South African mines exported only 2 700 000

tons, but by 1980 sales were more than 28-million tons. Steam coal accounts for most of these exports.

South African mines will export 44-million tons of coal a year by the mid-Eighties.

Three oil companies — Shell, BP and Total — will be allocated 34% of SA coal exports under Phase III of the Government's export programme.

By the mid-Eighties Shell will export 5 500 000 tons a year, BP 5 500 000 and Total Oil 2 500 000. General Mining's share will be 7 500 000 tons, the Transvaal Coal Owners Association 10-million tons, and Anglo American Coal Corporation 6-million tons a year.

All companies are keen to take advantage of the export market because of a substantial improvement in world coal prices.

According to the Transvaal Coal Owners Association,

action, contract prices in 1979 were as low as R20 a ton. By 1980 contract prices were R28 a ton and are "expected to average R33 a ton in 1981."

The Economist Intelligence Unit estimates that in 1980 average operating costs of underground mines were R8 a ton. The major cost components were stores R3.44 a ton, labour R2.40 a ton, repairs R1.04 a ton, sundries 72c a ton and power and water 40c a ton.

Estimated operating costs of open-cast mines were R5 a ton in 1980.

The study expects labour, repair and replacement costs to rise by more than the average rate of inflation. Stores and diesel price increases will be below average. Electricity charges, which doubled between 1975 and 1978, are not expected to be a problem in the first half of the Eighties.

Capital investment costs for new underground mines and extensions to existing mines could rise by 3% more than increases in the wholesale price index.

The study predicts that real costs of coal, based on 1980 prices, will rise by only 5% between 1980 and 1990.

Including operating and capital costs and rail and loading charges, total costs of an underground mine will rise in real terms from R25.63 a ton in 1980 to R25.98 a ton in 1985 and to R26.87 a ton in 1990.

Open-cast mines' total real costs, calculated back to 1980 prices, are projected at R25.03 a ton in 1980, R25.43 in 1985 and R26.35 a ton in 1990.

Actual cost increases will be higher, but much depends on the overall rate of inflation this decade. Increases in export prices of coal must at least match the rise in costs

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Project 'first^{CAIT} in the^{7/17/82} world'^{1/24/82} ²⁴⁷

Staff Reporter

A NEW project to enhance industrial relations in South Africa was announced by the Committee for Community Relations of the President's Council at a press conference yesterday.

The scheme is to be known as the inter-face project and is believed to be the first of its kind in the world. The experts involved, both local and American, hope it may serve as a model for the rest of the world.

Chaired by Dr W A van Niekerk, the panel at the conference included Dr Melvin Sorcher, a United States behavioural scientist, Professor Milton Hakel, professor of psychology at Ohio State University, Mr Norman Nossel, deputy chairman and managing director of Adcock Ingram group of companies, and Mr Rodney Spence, manager of the Anglo American Corporation's group central training unit.

One of the cornerstones of the project would be the building of employee self-esteem, which, Dr Sorcher said, was perhaps the most powerful non-financial incentive there was in terms of human behaviour.

Production rise

Investigations into the concept were begun in 1977 by Dr Sorcher and Mr Nossel. A subsequent six-month pilot study had resulted in an "unbelievable increase" in productivity at his company, Mr Nossel said, as well as a sharp drop in employee turnover.

Research on the project represented the first time anywhere in the world that attention had been given to two-way communication in this way, Mr Spence said.

An article on the project will feature in Personnel Psychology, a US monthly magazine distributed world-wide, in October and the committee hopes to have an interim report ready for presentation to the State President by the end of the year.

Businessmen told productivity lagging

EAST LONDON — South Africa's productivity performance leaves much to be desired, the executive director of the National Productivity Institute in Pretoria, Dr J H Visser, said last night when he addressed leaders of commerce and industry in the Border region

Dr Visser, who was guest speaker at a banquet, said not only did South Africa perform much worse than most other countries with which it traded and competed, but the rate at which "we increase our productivity has been dismally low over the past decade"

Quoting an example, he said South Africa produced on average only about 15 to 20 per cent as much per capita as the United States of America, Canada and Australia

"We increased our output per capita at only 0,3

per cent per annum from 1972 to 1980, compared with 1,9 per cent in the USA, 2,1 per cent in Canada, one per cent in Australia and 1,5 per cent in the United Kingdom

"People should realise that the output per capita determines the consumption per capita, or, stated otherwise, productivity determines the standard of living of our peoples

"It is not acceptable to have such a low productivity growth rate because nobody in South Africa will be prepared in the long run to have his or her standard of living increased at such a slow rate," Dr Visser said

He said it was unfortunate there were pressure groups in South Africa who did not see the absolute necessity for growth in productivity as a prerequisite for an increase in the standard of

living

Dr Visser said they believed that their standard of living could be increased by merely demanding an increase in wages and salaries without a "quid pro quo" of increased productivity

"What can be done to improve productivity?" Dr Visser asked

He said there was no quick and easy solution South Africa had too many basic and inherent weaknesses to solve its productivity problems overnight

"Firstly, we lack a productivity culture — we do not realise just how important productivity is because it was never made a part of our education and upbringing

"We are a land of abundance and could always survive, in fact grow and develop, while wasting energy, capital, raw materials and labour

"Other countries where these commodities are scarce know how important it is to get the maximum output from these resources," Dr Visser said

"Our second major shortcoming is the level of education and training of our workforce. The education problem can only be solved in the long term and it will take us a number of generations to catch up or at least get to the level where our main foreign competitors and trading partners are today," he said

Dr Visser said there was a partial solution to this problem in meaningful training and development programmes for workers

He said it was largely the responsibility of employers who, with their respective unions, should work out programmes to ensure training that would enable

workers to perform better at the work place

"The third weak link in our productivity chain is the lack of sufficient middle management. Almost every senior manager I talk to tells me that he has few problems with workers, but that he lacks adequate and suitably trained middle management to make maximum use of the resources at their disposal

"This is perhaps our most serious shortcoming in our efforts to improve productivity. It is at this point where the National Occupational Safety Association (Nosa) has been playing a vital role over the past two decades," he said

Dr Visser said Nosa, through its safety and loss control programme, gave middle management a tool that could be used to supplement their meagre resources and skills. DDR

Productivity low says Etheredge

By Stan Kennedy

The call by some chairmen and chief executives that there should not be wage increases for blacks without an increase in productivity contains more than an element of nonsense, says Mr D A Etheredge, chairman of the Gold and Uranium Division of Anglo American Corporation.

Speaking to the Association of Personnel Services Organisations of SA, he said that despite South Africa having so much going for it in terms of climate and resources, productivity was low by world standards.

"Countries with high real wages are usually those with a high level of productivity, while those with low real wages are generally low in productivity."

The educated white was protected in his job, sometimes by legislation but more by employer practice and trade union determination, and he did not have to feel the winds of competition from

black workers.

The white youth with a matric could be "pretty sure" of a job at a starting rate which was more than many a black could command who had a wife and children and had been working for 20 years.

"Real productivity improvements will come from technological advances and the wise use of capital. These, together with education and training, will bring higher productivity," he said.

"Wage increases for the lowest paid are more than just a moral issue but are part of the process of healthy economic growth and

higher levels of productivity."

Of the country's total manpower of 10.8 million, 30 percent had no education, 36 percent had primary schooling only, while secondary schooling accounted for 31 percent and diplomas and degrees for three percent.

He said the overall productivity of such a work force could not be high.

"What has a profound effect on productivity are the legal restraints, and social, cultural and psychological factors which underlie economic attitudes and behaviour," said Mr Etheredge.

Stan
247
29/7/82

Fanie Botha calls for productivity thrust

(247) 9/8/82

The private sector should 'make the improvement of productivity its major aim, the Minister of Manpower, Mr Fanie Botha, said when he announced the three winners of the National Productivity Award.

Mr Botha said South Africa had no hope of overcoming its economic problems if it continued neglecting its responsibility in the field of production.

"By achieving a productivity growth rate of only 15 percent of that of our competitors, we are in fact conceding

defeat. What we need is the complete involvement of all South Africans in the field of production," he said.

The private sector had demonstrated its willingness to combat one of the country's economic problems when it played a role in the Manpower 2 000 project. "What we need now is a similar, if not bigger involvement from the private sector in productivity improvement," Mr Botha said.

The Government looked upon productiv-

ity improvement as an absolute must for long-term survival.

"Continued economic growth, the standard of living of the people, our ability to compete on international markets, in fact our entire livelihood depends on productivity."

While the Government contributed to solving most of the country's infrastructural problems, the national performance depended on the performance of the free enterprise system, Mr Botha said.

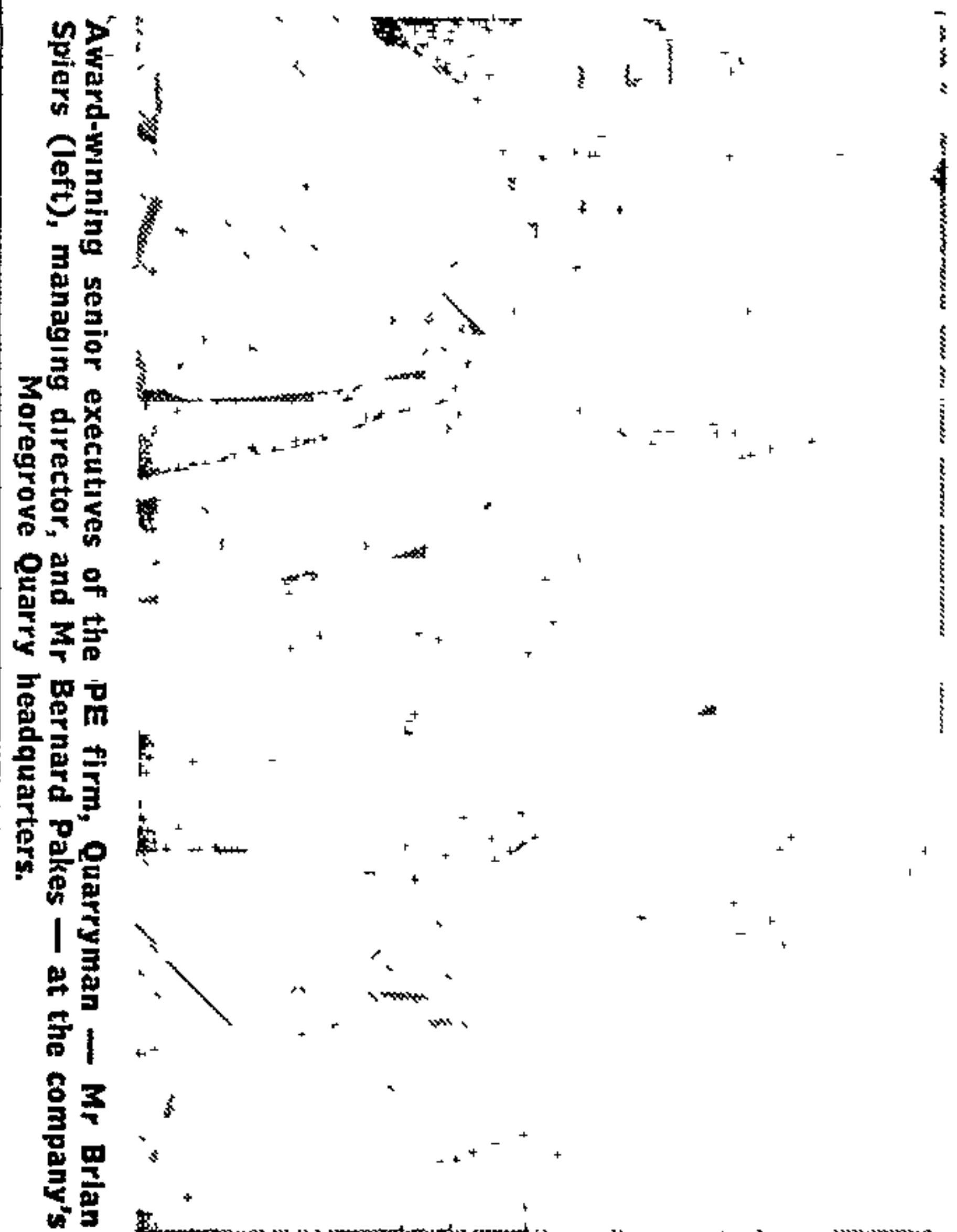
The awards are given each year by the National Productivity Institute for "the effective and efficient use of resources with a resultant increase in the input output ratio."

This year's winners are

● The Sigma Coal Mine, Sasol, for productivity improvement achieved by an outstandingly successful participative management programme. The programme included organised group discussions involving employees in determining their own aims

● Quarryman Port Elizabeth, for overall outstanding productivity improvement. Raw material costs and truck mixer running costs account for about 85 percent of the delivered cost of ready mixed concrete, and it was in these areas they had the greatest success.

● Umzimkulu Planters' Co-operative, Port Shepstone, was given the award for its participative management programme applied to the entire process of transporting sugar cane



Award-winning senior executives of the PE firm, Quarryman — Mr Brian Spiers (left), managing director, and Mr Bernard Pakes — at the company's Moregrove Quarry headquarters.

Thaw those frozen assets to hot up productivity

By MARTIN FEINSTEIN
Education Reporter

FACTORY foremen may soon be sporting thermometers alongside the pens in their pockets — and all in the cause of productivity

A four-man team of Pretoria scientists has just released the first results of a massive, three-year research project into the effects of temperature on factory

workers, and some of the findings are remarkable

The project tested the assembly-line abilities of nearly 1 000 black and white workers of both sexes in temperatures ranging from a chilly 6°C to a steaming 38°C, using specially built "mobile climate caravans"

And, according to the first two papers the scientists have published, a freezing

factory floor can ice up a worker's skills and stamina

They found, for example, that as it got colder women performed consistently worse than men

Race also played a part. When the mercury dropped to 6°, whites kept up a good level of arm steadiness, hand-eye co-ordination and machine control

Blacks, however, showed a marked drop in all aspects of

performance, with the exception of the strength of their grip

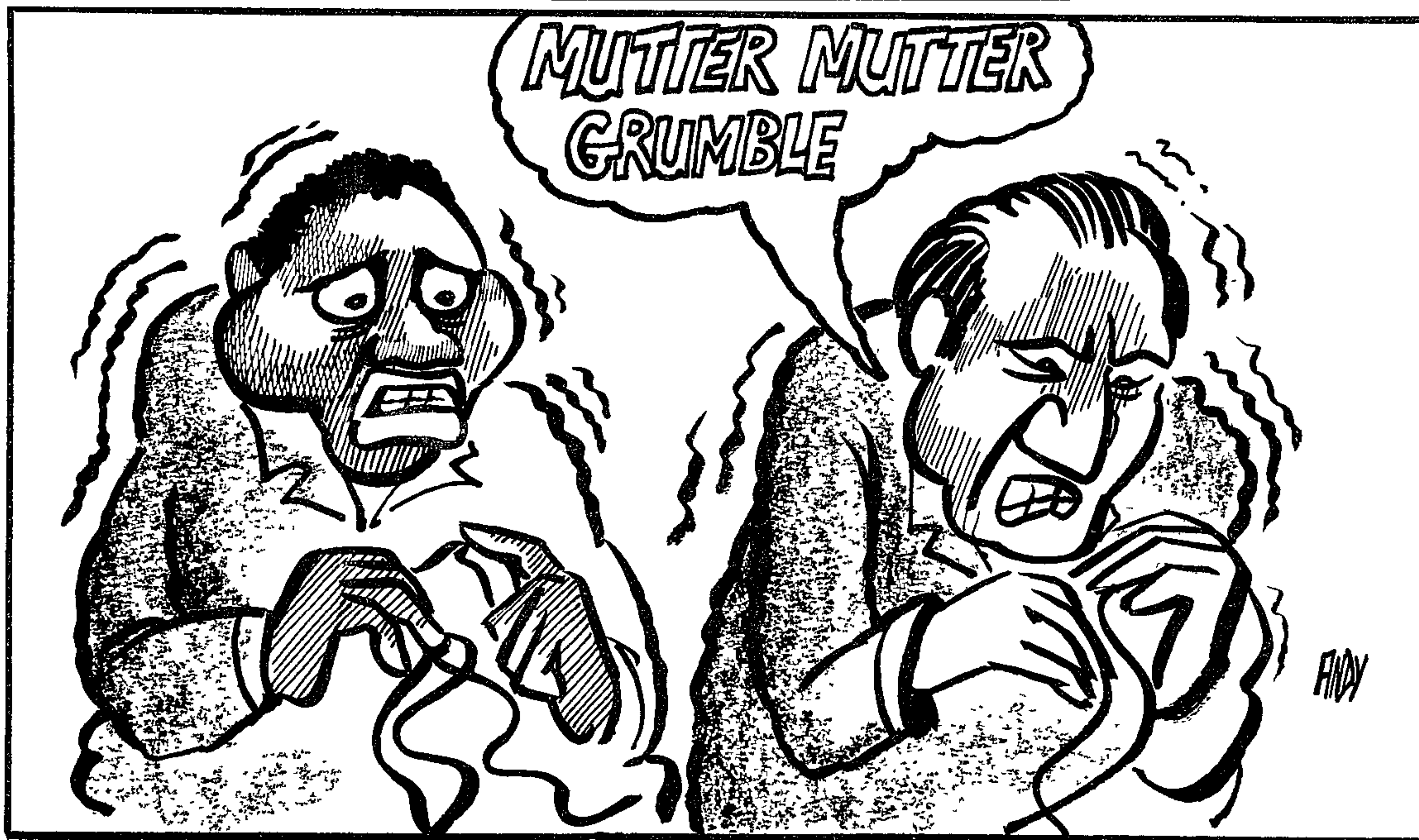
Nevertheless, the black workers were a great deal more tolerant of the cold: only 63% of black women and 31% of black men complained of the cold, compared with 93% of white women and 75% of white men

"The results," the scientists reported, "show that a wide range of manual skills

are adversely affected by low air temperatures commonly encountered in factories in South Africa in winter, even by air temperatures regarded as comfortable by normally clothed workers"

The team's next two papers, dealing with the effects of heat and other factors, are expected to be published shortly

● See Page 11



More cold, less work Less cold, more

That is the message a team of Pretoria scientists has for industrialists after a three-year experiment with nearly 1 000 factory workers

This week, the Mail took a close look at the first two of four papers to be published by four scientists from the National Building Research Institute, who have completed a minutely detailed study of the effects of temperature on productivity

The scientists are Mrs Mary Lewis, Dr Geoff Meese and Dr Retief Kok — all researchers at the institute — and a Swedish consultant, Dr Dave Wyon

Their aim has been to plug a gap in research (hardly any work had been done in this area) and, in so doing, to give industrialists some idea of just how important is the construction

Planning for the study began in 1974, and the following year technicians began building the equipment: two 8m-long caravans, in which the scientists call "mobile climate laboratories" complete with cooling and heating equipment, airlocks, toilets, one-way observation mirrors and adjacent living tents

With these caravans and an on-board computer, the scientists were ready to start — and they began by looking for 904 men, black and white and of both sexes

Half of them were to be tested for the effects of cold on their working abilities (at temperatures of between 24°C and 6°C) and the other half for the effects of heat (between 20°C and 38°C)

(So far the scientists have published only an introductory paper and one dealing with the effects of cold, another two, dealing with the effects of heat and other factors, are due to follow in a few months)

The mobile caravans were parked outside selected factories near Pretoria, and foremen and works committee members were shown around, encouraged to volunteer, and then despatched to round up more volunteers

The signed-up volunteers were then

Some hard, cold facts

Pretoria scientists have completed a study of effects of heat and cold on factory workers MARTIN FEINSTEIN reports.

dressed in "standard" clothing (heavy cotton shirt and trousers, socks and leather shoes, as well as boilersuits for men and lab coats for women), fastened up and told to leave only their top button undone

Beneath their clothes were attached a host of computer-connected sensors to make regular measurements of the skin temperatures on their chests, thighs, toes and fingers

Thus wired-up and briefed, the volunteers — at the rate of four a day — were put through a series of 14 tests designed to measure various abilities involved in factory work

Each volunteer performed the tests four times at four different temperatures 24°, 18°, 12° and 6°

One of the most startling findings was that the performance of women was "consistently worse" than men — even at tasks traditionally performed by women in factories

Several others showed remarkable differences between blacks and whites, even though the researchers fell short of making absolute comparisons between the two races because of obvious differences in schooling, learned skills and social conditions

For example, arm steadiness, hand-eye co-ordination and machine control remained good in whites even when the temperature dropped to 6°

Blacks, however, showed a drop in all aspects of performance at this temperature, with the single exception of grip strength

Here are some of the other findings in more detail

Of the 36 work abilities measured, blacks were adversely affected by the cold in 26, while whites were affected in 22

The researchers found at 18°C performance in eight of the 14 tests was "significantly impaired"

For both blacks and whites, speed of finger movement, as well as some assembly-line skills, dropped

White men lost a little dexterity and handgrip strength, while black women lost some touch sensitivity and hand steadiness

At 12°, performance deteriorated further

The manual dexterity of all groups dropped, and blacks showed a marked reduction in finger strength

Whites, meanwhile, lost some sense of touch, white women found it more difficult to tie knots and all groups showed a drop in assembly-line skills

Black men joined their female counterparts with less steady hands, and hand-eye co-ordination of both worsened

There were interesting differences between blacks and whites at 12°

White men showed adverse effects in such delicate areas as touch, as well as

physically demanding ones such as spot welding, whereas black men were not affected

But the reverse was true for hand steadiness and hand-eye co-ordination

It was "most surprising", said the scientists, that blacks showed little drop in sense of touch, although their general performance declined from 24° to 12°

Hand steadiness and hand-eye co-ordination were adversely affected at 12° for black women but not for their white counterparts

At 6°, the report continues, "performance of several other tasks deteriorated but there were differences in performance between whites and blacks, particularly the improved performance of the white group"

At this temperature, the grip, work rate, reaction time and vigilance of white women were better than at 24°, while the grip and certain assembly-line skills of white men were better than at 12°

"These behavioural changes contrast strongly with the effects of severe cold on black factory workers, who worked more slowly, hesitated more, and attempted (less) at 6° than at higher temperatures"

"The black men also ceased to follow instructions, avoided exertion in the welding task and became less accurate"

But, to their merit, the black workers complained a great deal less than whites at 6°

Whereas 93% of white women and 75% of white men complained of being too cold, only 63% of black women and 31% of black men did so

"Black subjects complained less of the cold and did not increase their work rate in the cold, yet the performance of almost all kinds of task was adversely affected for blacks as well as whites," the report mused

"The results reported here show that a wide range of manual skills are adversely affected by the low air temperatures commonly encountered in factories in South Africa in winter, even by air temperatures regarded as comfortable by normally clothed workers"

Anyone want to borrow my jersey?

...community future... to fight... behind military... had to and eco... it's pro... destroy... nation... community, be imple... all four... provincial... would be... in legisla... this would... ed to the... elect com... constitu... all parties... are repre... the vast... South... reasonable... here were... of reason... the black... ndian com... co-opera... it of 'South... n try to es... maintain... country for... and their... uberg... it happened... ne unidenti... gone into... with three... he disap... the other... eted police... the NSRI A... h brought... MacMahon... tro service... artificial... it could not... attack the government in this way... were involved made it more difficult... of the Van der Walt Com... mission... the good sense of South Africa's voters — Sapa

Missing man may have been murdered

Staff Reporter

BOLAND police are investigating the possibility that Mr A H P van Zyl, who went missing on Aurora Mountain two weeks ago, may have been murdered.

Mr Van Zyl, 58, was reported missing on August 9, when he failed to arrive home after leaving work earlier that day.

The search began after his car with lights and windscreen wipers on, was found abandoned on the slopes of the mountain near the farm, Gys se Kraal, where he and his partner farmed proteas.

Subsequent searches of the area by police, neighbours, family, farmers and an Air Force helicopter, proved fruitless.

A doctor has told police that Mr Van Zyl, who had recently undergone an operation, would not have been able to walk much further than 500 metres.

Last night a close family friend said Mr Van Zyl had not locked his car, something he always did without fail, and the car was parked unusually.

Mr Van Zyl was as a driving force in the development of the Saldanha-Vredenburg complex, was chairman of the West Coast Regional Development Association in the Sishen-Saldanha iron-ore export project, and was a former town councillor.

Pay rises 'undermine SA's competitiveness'

Staff Reporter

CONCEPTS such as the Poverty Datum Line (PDL) had been instigated by people overseas to destroy South Africa's competitiveness. Mr Basil Landau told the economic affairs committee of the President's Council yesterday.

Mr Landau, a member of the PC, said that 10 years ago South Africa had been competitive, but this had been undermined by wage increases.

"Where did all this stuff about the PDL come from? It was orchestrated by people overseas to make South Africa less competitive than them."

Mr Landau linked this



Mr Basil Landau

with an allegation by Mr Braam Raubenheimer, chairman of the committee, that German trade union leaders had instigated the strikes in the Port Elizabeth motor in-

dustry, to help German motor workers.

Mr Raubenheimer said these unionists, pretending to serve the interests of local workers, had merely provided the German workers with more work to do.

The discussion took place during a special debate on productivity called by Mr Landau while the committee was hearing evidence on the free-market system yesterday.

He said wage increases of 12 to 13 percent — "almost the rate of inflation" — were too high, and were in fact responsible for the high rate of inflation in South Africa.

Body found in airport dustbin, court told

Staff Reporter

A RAILWAY police-woman told the Supreme Court yesterday she found the tightly-wrapped body of a baby in a dustbin at D F Malan airport in December last year.

Mrs Karen Visser was giving evidence in the trial of Miss Christina Beukes, 32, of Lavistown, who is charged with murdering her new-born baby.

Miss Beukes, an unmarried mother of two,

pleaded not guilty to murder, but guilty to attempted concealment of birth. The State did not accept her plea.

She conceded that she gave birth to a boy on December 16 last year and that the same baby was found at the airport later that day.

Mrs Visser told the court she was called to investigate a bundle in a dustbin in the women's cloakroom on December 16. Only when she unwrapped part of it did she become aware it contained a baby.

A State pathologist, Dr L van Ieperen, said the baby died as a result of a shortage of oxygen. The towel and nightgown could have caused his death, he said.

Under cross-examination, Dr Van Ieperen said it was unlikely the baby died during birth. He was large — 5kg — and showed no signs of illness or internal obstruction of

his air passages.

His lungs were fully dilated and there was a strong likelihood he had breathed outside his mother's body.

Miss Beukes's aunt, Mrs Johanna Siljeur, said Miss Beukes had lived with her during her pregnancy and had never wanted the baby. They had planned to take her to a home for unmarried mothers but shortly before the birth she had refused to go and had left their home.

She said Miss Beukes's two children were being cared for by other people. The baby's father, who was a boarder in a relative's house, had not been prepared to marry her.

The hearing continues today.

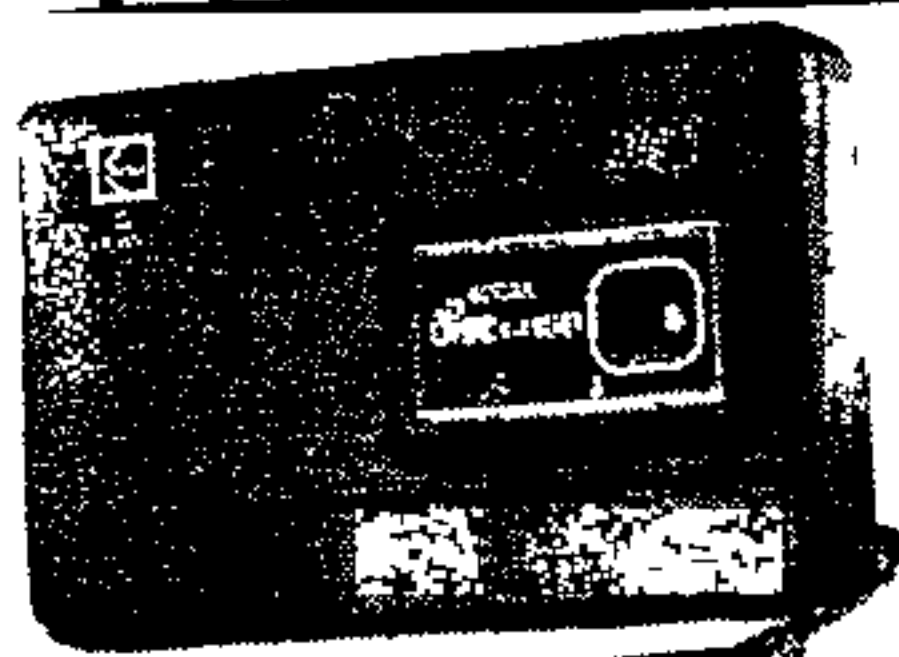
Mr Justice Fagan sat with two assessors, Mr J J Basson and Professor D van Zyl Smit. Mr H Barnard appeared for the State. Mr W Duminy appeared pro Deo for Miss Beukes.

Concert a curate's egg

SYMPHONY CONCERT, City Hall, Thurs 19th; CTSO conducted by Brian Priestman, soloist Yonty Solomon, Josephs Variations on a Theme of Beethoven, Op 68, Haydn Symphony No 45 in F sharp minor ("Farewell"), Rachmaninov Piano Concerto No 3 in D minor, Op 30.

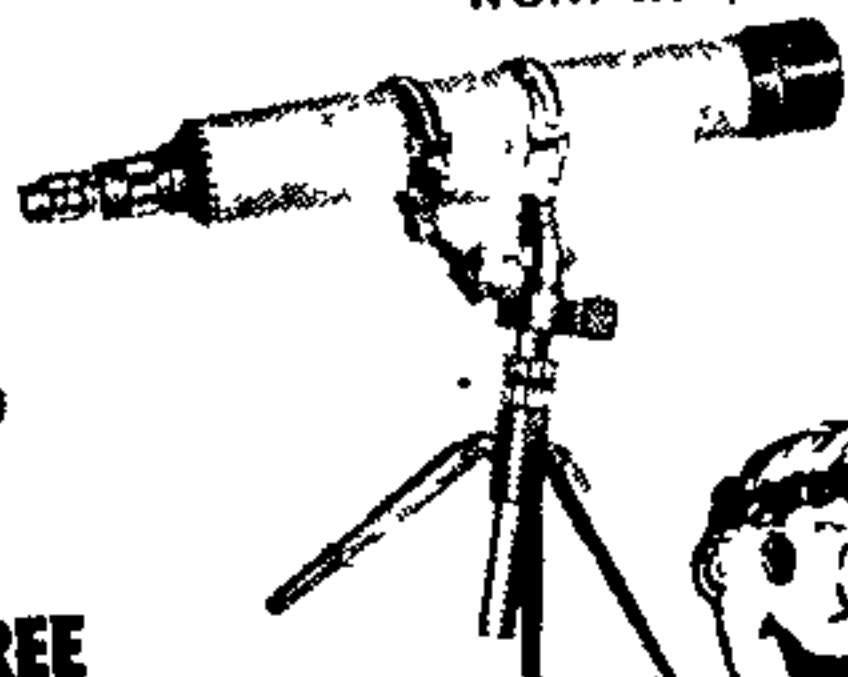
A FULL house packed the City Hall for what proved to be a concert of curate's egg dimensions. Joseph's Variations afforded a witty start to the proceedings, although presages of poor ensemble crept in. Thereafter the minuscule orchestra bounced through Haydn's

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ALDO & LENKEM PHARMACY, WITHIN SHAW'S CENTRE

Labour relations vital to productivity expert

Bus. ARGUS 4/9/82
(122) (247)

By Audrey d'Angelo
LABOUR relations will become increasingly important in South Africa if productivity is to be improved, says Mr Hugh Brown, managing director of Integrated Productivity Systems.

He has won a national award from the Institute of Personnel Management of South Africa for a system of productivity improvement tailored to South Africa's special needs and taking six inter-related aspects into account

The system will be explained at a seminar at the Holiday Inn, Bellville, on September 10

Mr Brown told Business Argus it was developed by him and Mr Yacov Kedem, industrial engineering manager at AECL, Somerset West, after 18 months' research in this country and overseas

It involved a combination of scientific management and organisational-behavioural approaches

KEY ROLE

These would play a key role in the South African economy in future, as its sophistication increased

Profits made here had been far too high, but they would now have to be channelled over a broader front

One reason for this was the rising expectations of the lower income

group, with the growth of education and of trade unionism

Wages would continue to rise because of inflation and these higher expectations, and productivity would have to be improved

DEVELOP LOYALTY

There had never been a better time to develop loyalty and commitment in the work force, but to do this better conditions and pay would have to be provided and top management would have to learn to negotiate with the unions

It would also have to institutionalise productivity and spend more on the development of middle management

Employees and the unions would have to be involved in moves to increase productivity and efficiency



MR Hugh Brown, managing director of Integrated Productivity Systems (Pty).

Increased productivity did not lead to unemployment but to growth and increased consumer demand.

The opportunity for South Africa's economy to expand was "enormous," particularly in the export field, and small firms would increasingly need connections overseas to take advantage of this



SOUTHERN AFRICA LABOUR AND DEVELOPMENT RESEARCH UNIT

RESEARCH DIVISION,
SCHOOL OF ECONOMICS,
ROBERT LESLIE BUILDING,
UNIVERSITY OF CAPE TOWN,
RONDEBOSCH
7700



TELEPHONE 69-8511 (Ext. 440)

Dear

In February 1979 SALDRU produced a working paper on Trade Union membership in South Africa from 1973 to 1977 inclusive, entitled 'Trade Unions in South Africa: Some Statistics'. At the time most of the Trade Unions kindly co-operated by providing us with figures and information of their affiliation.

We should be very grateful if you could provide similar information for 1978, 1979 and 1980. Attached is a form for completion and return in the stamped addressed envelope.

Thank you for your help,

Yours sincerely,

SHIRLEY MILLER,
RESEARCH ASSISTANT.

Productivity a 'side issue in labour relations'

Mercury

16/9/82

132
247

Finance Reporter

PROFESSOR Nic Wiehahn, Labour Adviser to the Minister of Manpower Utilisation, yesterday expressed reservations about the issue of productivity being included in wage negotiations

He said this type of bargaining would not be seen in South African labour relations for some time

He was speaking at a seminar on 'Productivity and its effect on Inflation, which was organised by the Natal branch of the

Plastics and Rubber Institute in Durban

'Black unions have said they first want to see equality in practice and not in theory, before discussing issues like productivity. They have told us that wages and conditions of service will remain the focal point of bargaining, while demands will be linked to the increases in prices

'I personally feel productivity is a rather peripheral issue in the field of labour relations and should stem from loyalty to the company, improvement in management, quality and the image of the company and the country. It has more to do with technological improvements than wage bargaining,' Professor Wiehahn said

Inflation

Dr Johan Cloete, the group economic consultant of Barclays Bank, said organised labour needed to be educated about the connection between wage bargaining, production growth and inflation

'To ask for an increase in wages before productivity rises only pushes up prices, increasing inflation which leads to a reduction of real wages in the medium term

'But productivity is also influenced by the stage of economic development of the society, the attitudes of the society and the size of production units,' he said

Mr Tony Hesp, managing director of BTR Sarmcol, said the labour force was not yet ready for this type of bargaining

Productivity

(247) Star 6/10/82

—urgent call—

by Ministers

Own Correspondent

PORT ELIZABETH — A call for higher productivity to free the economy from its "most important economic albatross" — low productivity — was made yesterday by the Minister of Internal Affairs, Mr F. W. de Klerk.

Delivering the opening address at the annual conference of the Motor Industries Federation he said the country was going through an austere period economically.

"We are experiencing a dramatic decrease in our export activities. Simultaneously, domestic demand is apparently declining. Mining profits are decreasing with the resultant effect on Government income."

ALTERNATIVES

There were a number of alternatives open to the industrialist and businessman to improve his own and the overall situation.

An aspect of great importance was productivity — of men, money and material.

"Productivity plays a cardinal role in the economy and its growth process, and its improvement is probably the single most important way to combat inflation without undermining profitability," he said.

COMPARISON

According to the National Productivity Institute, the latest available per capita production respectively of Sweden, the United States, Canada and West Germany had been between R6 000 and R6 500, but for South Africa and Taiwan the figure was about R1 000.



Mr F W de Klerk — free the economy.

In the period 1972 to 1981 Sweden had an increase of two percent, the United States 1,8 percent, Canada two percent, the United Kingdom 1,25 percent, Israel 0,8 percent, Taiwan 6,8 percent and South Africa 0,5 percent.

"From this it is evident that our own position is in reality



Mr Fanle Botha — develop human resources.

worsening. Indeed, there is reason for great concern.

"The crux of our productivity problems seem to rest in adequate training, lack of good and enough managers and little identification with producti-

vity ideals which can neatly be summarised in one statement — education and training.

TRAINING

In a speech on the same subject at Sun City today, the Minister of Manpower, Mr Fanle Botha, said high on the list of the more important reasons for South Africa's poor economic performance was the lack of development of human resource.

"For too long it has been possible for all of us in the public and private sectors to let our organisations grow by simply adding more and more labour, capital and raw materials to our inputs," he told the institute of Personnel Management.

"These we convert at the same or lower productivity levels and achieve a higher output."

"We could do this because the additional inputs were available. Very few managers had the insight or appreciated the need to train and develop the existing workforce as a means of attaining a higher output."

LULLED

"In this way we were lulled into the belief that we could get away with this tactic indefinitely."

Speaking at the same convention, Dr J H Visser, executive director of the National Productivity Institute of SA, said a major problem which could play havoc with productivity was industrial relations.

"No thinking or planning you do in isolation will solve this problem — you will have to do it jointly with organised labour," he said.

XHOSA SERVICE COURSE

NAME.....

NO.....

Date

TEST 7

Translate into Xhosa:-

1 We shall write examinations to-morrow. (3)

2 Themba will ask him about the picture (3)

3 Mr Murray will not speak on Sunday. (3)

4 My parents will buy a car next year (5)

5 I am sitting on my mother's chair. (3)

6 My maternal uncle's name is Jonathan (3)

7 My brother is in Johannesburg but my sister is at Home (5)

8 My brother is married but my sister is not married. (6) (49) 84

9 I have a dog and a cat. They are at home. (3)

10 Nomsa has no parents but she has sisters. (4)

11 How many servants are there? Six. (3)

12 To whom is your sister married? She is married to Mr Ban. (5)

13 My grand mother stays with my paternal uncle because my paternal uncle is not married. (6)

14 Sipho will drive (this) bus to-morrow (4)

When are you going to start working? Next week. (4)

16 Have you seen the teacher No, I have not yet seen him. (4)

17 The family will not welcome him at home. (3)

18 Lizo will not teach Xhosa next year. (4)

19 Noni and friends will sing at Baxter Theatre next month. (4)

Productivity the problem

(247) Mercury 7/10/82

SUN CITY — South Africa has a real productivity problem, and unless this is solved, the country cannot expect to have a bright future, according to Dr J H Visser, executive director of the National Productivity Institute of South Africa.

Speaking at the IPM convention at Sun City, Dr Visser said that personnel practitioners could make a significant contribution in most areas that cause low productivity — if they are prepared to move away from the traditional 'right things to do' approach, and start playing a pro-active and dynamic role in efforts to improve productivity.

'You can play a major role in transforming South Africa from a Third World to a First World country'

Comparisons

Dr Visser said he was convinced that South Africa was not producing only 16 percent as much as the USA per capita, as indicated by the comparative per capita output of a number of countries.

For the comparison, foreign currencies had to be converted to South African rand, 'which clearly must have distorted the figures'.

'At the same time, other calculations showed that we are definitely not producing 25 percent as much per capita as the USA. What is demonstrated by the figure is that our performance definitely classifies us as a part of the Third World'.

The annual growth in gross domestic product per capita over time, 1972 to 1981, showed a very alarming picture.

'South Africa is one of the world's poorest performers at 0,6 percent annual growth in GDP per capita from 1972 to 1981 — compared to that of the USA at 1,8 percent and the UK at 1,3 percent'.

'This means that we are falling further and further behind the rest of the world'.

Inflation

Dr Visser said South Africa must accept that the output per capita determined the consumption per capita, 'and we are not doing very well'.

'We seem to think that by paying people more per capita, their standard of living can be increased. The truth of the matter is exactly the opposite'.

'By paying workers more without a compensating increase in output per worker, we only fuel inflation and cause an even skewer distribution of income and wealth. What we have done in the past leads us on a road to disaster. We can deduce one fact from this, and that is that we will have to change. The recipe of the

past cannot be continued with'.

Reasons

He believed there were three main reasons for the country's poor performance over the past decade.

Firstly there was a lack of a productivity awareness. This shortcoming covered all peoples of all levels. The cause of this must be sought 'in the abundant production resources we have always had'.

South Africans could in the past generate the business and economic growth they wanted by employing more of the readily available resources, process these at the same productivity rate and, presto, output was increased. It was seldom, if ever, necessary to revert to the other leg of growth, productivity, to achieve the desired increase in output. 'Traditions and habits die hard, and we have been suffering from the inheritance of the past'.

Education

'The second reason for our poor performance also relates closely to your field of specialisation — the lack of a sufficiently educated and trained work force'.

'I do not want to dwell on the shortage of educated people in South Africa. This problem has been ventilated enough in the past few years to make us painfully aware of the backlog that exists'.

'The very fact that we do not have a sufficient number of educated people should have motivated us long ago to do more than would normally be expected to train our work force, so as to compensate for the education backlog. It is sad, in a way, that we had to have a Manpower 2000 campaign to waken employers up to accept their responsibility in this regard. I hope the Manpower 2000 initiative will be continued with vigour and enthusiasm by the Manpower and Management Foundation'.

'But,' said Dr Visser, 'we must accept that neither Manpower 2000 nor the MMF will solve our training problems. This can only be done by management within the firm, sometimes in collaboration with the activities of the employer organisation'.

'We have over the years detected many problems in the training field, problems that can only be solved if personnel practitioners are prepared to change, and take a new view of the training process'.

Management

'The third reason of our poor performance is the lack of management skills'.

'We at the NPI maintain that management or the lack of it has made a greater contribution to our poor performance than the other things combined'.

'Promotion to management level traditionally is based on the performance of a worker in a non-management position. Although one can find fault with this, I maintain that it does at least give you an indication of a person's ability to perform, albeit in another field. The problem really starts when this newly promoted person is not trained to perform his newly acquired duties as well as might be expected'.

Dr Visser said the three problems of the past would certainly remain in the future and steps would have to be taken to help solve them.

A fourth major problem looming on the horizon which could play havoc with productivity was industrial relations — (Sapa)

SA falling behind rest of the world

247

ROOM

7/10/82

SOUTH Africa had no hope of overcoming its economic problems and catching up with the rest of the world if it continued to neglect productivity, said the Minister of Manpower, Mr Fanie Botha, yesterday.

Delivering the main address at the third world convention of the Institute of Personnel Management at Sun City, Mr Botha said that by achieving a productivity growth rate of only 15% to 20% of that of other countries, South Africa was falling behind rapidly.

"I think we should try to pinpoint some of the more important reasons for South Africa's poor performance."

High on the list was the lack of training of human resources development.

"For too long has it been possible for all of us in the public and private sectors to let our organisations grow by simply adding more and more labour, capital and raw materials to our inputs, converting them at the same or even lower productivity levels and achieve a higher output."

"We could do this because the additional inputs were available. Very few managers had the insight or appreciated the need to train and develop the existing work

force as a means of attaining higher output."

SA was now faced with the harsh reality that it could not continue to get away with low productivity. Prices of raw materials, energy, labour and capital had increased to levels where it was more than essential to improve productivity if South Africa wished to be competitive in international markets.

"The first step that must be taken to get this higher productivity is to train our senior and middle managers, our supervisors and operators — our work force as a whole."

"The second main reason why we have an unacceptable productivity history, is strongly related to the training problem, but it is of a very specific nature, namely the acute shortage of management skills at all levels."

"Not only are South African managers traditionally unaware of their productivity responsibilities, but they were not trained and developed to deal with productivity."

Most managers did not know how to start and implement a productivity programme because they had never been trained to do so.

"If I can single out one overriding reason for our poor performance it is the lack of a sufficient number of well-trained managers who are aware of the productivity

role they have to play."

From a national point of view, productivity was an "absolute must" for long-term survival.

Continued economic growth, the standard of living and the ability to compete on international markets depended on productivity.

"Whereas a government can make a contribution to solving some of a country's infrastructural problems, such as the adequate supply of water, electricity, communication media, railways, harbours and so forth, it is not within the control of a government to ensure continued productivity growth in a country."

BOPHUTATSWANA with the rest of the third world had to accept that agriculture was one of the most important sectors of the economy and would be for a long time, said Mr T M Molatlhwa, Bophuthatswana's Minister of Foreign Affairs and Acting Minister of Manpower Utilisation.

He said in opening the convention that a worldwide analysis showed that the creation of employment opportunities in the agricultural sector was considerably less costly than in others.

"But, being a developing country, as well as being part of a continent where the increase in population, on the one hand and an alarming decrease in food production on the other, is a disturbing reality, we are proud to say that during the last season we were one of only three countries in Africa that exported food, producing more than our own needs."

Bophuthatswana's annual buying power was more than R1 000-million — Sapa.

SA productivity up to standard

Financial Correspondent

South Africa's productivity increases compare well with those in other Western countries.

Figures released by the National Productivity Institute indicate that labour productivity in the country increased by 26 percent between 1970 and 1980.

According to the latest issue of the Bulletin of the Union Bank of Switzerland, productivity increased during this period by 51 percent in Japan, 37 percent in West Germany, 27 percent in the Netherlands and 18 percent in Switzerland.

higher solar encouraged y say, facilit

In the United States the increase was only six percent. This was attributed to the large share of the services sector in the total number of employees in the highly diversified American economy. Technological innovation in the services sector had been slower than in the other sectors.

In Europe and the United States the overall demand weakness and slow investment in capital goods led to lower productivity.

gains in the second half of the 1970s than in the first half of the decade.

In South Africa, the reverse has been true. From 1979 to 1980 productivity in industry rose by no less than eight percent, reflecting the rise in overall demand in the economy.

The Union Bank of Switzerland, commenting on the Japanese performance, said that very favourable rates of interest helped industry.

This is par the ICB and stage where being provided

workers are the only alternative. Yet because of the ICB, and numerous other laws, the blacks are not really at the stage to move into skilled jobs. Moreover, our law is not even conducive to blacks moving in either of 5 remaining job reservations. Blacks' basic educational facilities are lacking and those who argue that the industrial colour bar has in fact been functional to economic growth in S. are going to be hard put to justify their argument in the next decade. Also the. Anyway the mere fact that Wickelma has attempted to dismantle the ICB shows that it has served its purpose (if it ever had one) & now a severely restricting restraint on economic growth in SA.

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R1 worth only 8c by 1999

By Michael Chester

Economic gurus expect the inflation rate to drop to 13 percent next year, but even so today's R1 will be worth only 8 cents by the turn of the century

At the moment the consumer price index is running at 143 percent on an annual basis

The sharp reminder about the speed of the erosion of the rand is given in the 1981-1982 executive director's review of the Manpower and Management Foundation

The review makes the point in an argument that it has become imperative to revive the Anti-Inflation Manifesto signed with gusto in 1975 but which slipped into oblivion

However, a resuscitated manifesto says the MMF, should be amended to ensure that targets are better monitored. "Attention should be focused on promoting competition and counter-acting monopolistic practices, increasing productivity, streamlining reduction of unnecessary bureaucratic involvement, and constant review of administered



prices

"It is also necessary to ensure that wage and salary monitoring of increases are matched by improved performance

"A world-wide comparison of productivity between 1972 and 1980 indicated South Africa was second last only to Zambia, with an annual growth rate of 0.3 percent compared with 1.5 percent in the UK, 1.6 percent in Austria, 1.9 percent in the US, 2.1 percent in Canada, 2.7 percent in Germany, 3 percent in Japan and 6.8 percent in Taiwan

"We clearly cannot hope to bring inflation under control until we effect a substantial and national productivity improvement"

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 churches, local ...)

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(d) improvements made by the authorities as well as planned by them should

be listed.

d) accessibility of a post office & telephone

e) fire-fighting facilities

f) ambulance & medical facilities

g) rainfall & suitability of soil for agriculture

h) crime rate

i) climate

Council is offered productivity unit

12/1/83 S. Post 247

By LOUIS BECKERLING
Business Editor

The National Productivity Institute will visit Port Elizabeth next month to sell the City Council a tailor-made productivity package

Should the council agree to participate in the venture, ratepayers should ultimately be able to assess how effectively their city is administered, according to the Town Clerk, Mr Paul Botha.

But first the NPI must persuade the city fathers that it's worth joining the "Municipal Productivity Unit" just extended to the Cape Province after a pioneering launch in the Transvaal.

And this explains the seminar, which is to be held in the City Hall auditorium at 10am on February 7.

NPI senior project manager

for the specialised unit, Mr Nic de Clerk, who has been transferred to the NPI's regional office in Cape Town, will present the seminar. In an advance statement on the Unit's activities in the Transvaal, the NPI says these include

- Research and development of the infrastructure to increase productivity and to assist local authorities with productivity improvement programmes

- The establishment and refining of a municipal data bank

Such a data bank will provide local authorities with information on productivity indices and comparative statistics and may be employed to detect trends of productivity growth. It can also be used to determine priorities for productivity improvement.

- The "development and

refining of productivity orientation and/or introduction of the productivity concept, productivity measurement and productivity improvement"

- Special productivity projects which are of importance to local authorities in general

- A micro-approach, which is "tuned to assisting local authorities with their specific and unique problems"

Should a council participate in such an exercise, says the NPI, it will be presented with a management information system enabling it to make comparisons with productivity "norms"

The NPI unit will also provide a regional training service (at the request of the inter-municipal productivity advisory council), which is presently available only in the Transvaal

Among the additional services tied up by the package are

- A study of budgeting practices in local authorities, with emphasis on a "goal-oriented" approach

- A manpower planning system, taking into account the total spectrum of personnel supply, its development and utilisation, "to continuously identify problem areas in the external environment and the organisational and personnel structures"

"Its purpose is to assist management to allocate the correct number of suitable personnel where and when required"

- Programmes such as the Productivity Orientation Programme (Pop) and the Management of Administrative Productivity (Map), and a vehicle control system

Cape Times 11/2/83

Report 'highly critical' in parts

Industrial Review

THE Kleu study group report on industrial development strategy is highly critical of several facets of South African industry

Economic achievements of industry did not meet the requirements which could be expected of a leading sector, the group found. Key shortcomings included:

- In contrast with the primary production sectors, manufacturing was a net consumer of foreign exchange

- Industry was more capital intensive than the primary production sectors and the gap would widen unless steps were taken to encourage more labour-intensive production techniques

- Manufacturing compared poorly with the primary sectors in terms of the productivity of its employment of capital

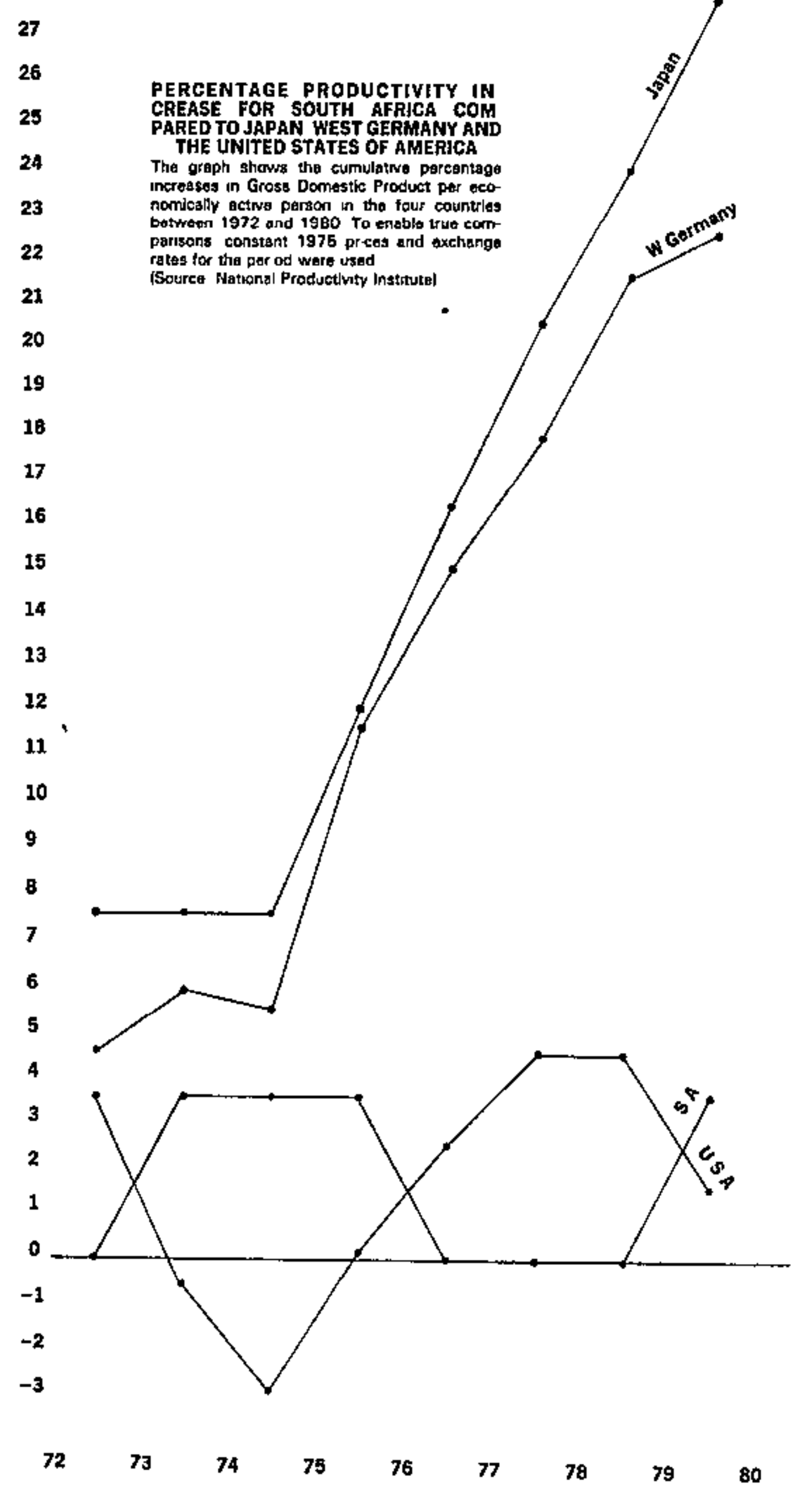
"As things stand at present, therefore, there is no economic justification for developing industry at the cost of the primary production sectors"

Efforts would have to be made to improve the economic performance of the manufacturing sector and it was recommended that immediate attention be given to the overhauling and refurbishing of technological policy

The study group recommended that an intensive effort be made to raise the productivity of all resources in industry and that the government regard this as a matter of the highest priority in its financial support.

Low output is serious threat

(247) E. Post 2/10/82



STAGNANT productivity levels are seriously threatening political and social stability in South Africa and could lead to a dramatic fall-off in foreign investment

This warning was sounded recently by management consultant Mr Michael Renton on his return from the United States, where he studied the impact of economic recession on business

And Mr Bill Hayward, director of the Port Elizabeth-based National Association of Automotive Component Manufacturers (Naacam) this week echoed the sentiment and appealed to businessmen to exploit the opportunity presented by the economic downturn and train their workers to achieve greater levels of productivity

Compounding the problem of poorly-trained and unproductive workers, says Mr Hayward, is the thinly-spread supervisory class in South Africa

"Here we have one supervisor for every 42 workers. In Japan the comparable ratio is 1:15, in Australia it's 1:11 and in the United States 1:6. Furthermore, in South Africa private enterprise spends an estimated R2 per economically-active person on skills' training



By Louis Beckerling
Business Editor

By contrast the Japanese, Australians and Americans spend between R10 and R20 per person on boosting the level of skills"

"Add to this poor performance by industrialists the fact that about 50% of our economically-active black population enters the labour market with less than six years of formal education and you have a problem which requires serious attention," says Mr Hayward "Yet few industrialists appreciate the urgency of the situation"

According to Mr Renton the source of many of America's current economic problems can be

traced to a zero growth rate in productivity over the last 10 years (see graph)

On the local scene, Mr Renton points out that productivity levels paint an equally dismal picture with South Africa showing one of the lowest productivity growth rates in the industrialised world "Our need to dramatically boost productivity is even more critical and urgent than it is in the United States," he adds

The attached graph shows the dramatic difference between two winners (Japan and Germany) and two losers (US and RSA) in the productivity race

The US position has sparked off a careful study of differences between the winners and losers. Just three of many significant factors affecting productivity that emerged are

- On average a Japanese firm will have nearly six times as many people involved in solving operational problems as a similar American company

- Most Japanese workers are better equipped to deal with problems than their American counterparts. Japanese employees average as much as one day a week training during their first 10 years

- In America short-term return on investment is typically the main criterion of successful management. But in Japan the management ideal is concern for quality and the continual search for perfection (often at the expense of short-term returns)

BUSINESS POST asked Mr Hayward if he could offer practical solutions to businessmen feeling the effect of an unproductive workforce

"Though many of our manufacturers appear unwilling to tackle the problem those who do so — by training their workforce — have achieved dramatic and highly profitable productivity gains

Mr Hayward said Port Elizabeth businessmen should contact the industry-funded Emthonjeni Training School, which offered a wide variety of courses

Among the two-week courses offered by Emthonjeni are

Difficult year forecast

JOHANNESBURG — Real recovery and economic growth is largely dependent on an economic upswing in the United States and Western Europe. Current indications are that this is not likely to take place until 1983, and then only at a moderate rate

This is stated by Mr W F de la H Beck in Murray and Roberts' 1982 annual report

In his chairman's statement, Mr De la Beck says with the inevitable time lag between this and an export-oriented recovery, 1983 is likely to be a year of continued difficult economic conditions in South Africa with very little real growth and exacerbated by a continued

"The group, in line with all other companies in the Republic, has had to adapt its forward planning and budgeting to the current economic climate, with its high interest rates and increased levels of taxation"

In the company's 80 years of operation it had been through a considerable number of downturns in the economic cycle and had both the financial and people resources to maintain the position during the current recession

The economic downturn will enable the company to streamline the organisation and give greater attention to improving productivity

"We have continued with our policy of setting up

land areas and adjacent independent territories and today have such jointly owned companies in Gazankulu, Venda, Kwazulu, Lebowa and Transkei

"In these companies, we provide much of the management at the present time but are actively promoting the development of black management skills"

In line with the Government's policy of relaxing some of the large number of price regulating mechanisms in existence, and permitting the private sector to regulate prices within the more natural restraints of the free enterprise system a number of construction related materials which had previously

controlled prices were decontrolled during the past year

"Contrary to popular expectation, this had not led to runaway increases in the cost of those materials. It is to be hoped that this trend towards a freer market will be extended into other areas of our economy where controls and administered prices tend to fuel rather than curb inflation

"There is a considerable demand for black housing under the 99-year leasehold scheme and with the facility being made available to private enterprise to undertake property development schemes in black areas there is an increasing opportunity for better class housing for blacks — Sapa

Total measurement

FM 25/3/83

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If you can't measure something, you can't control it. This is as true of that much-used, little-understood concept, "productivity," as it is of anything else.

The notion of productivity attracts wide concern. National economic managers see productivity changes as being closely bound to general economic well-being. They appear to be related to inflation control, economic growth, foreign competition and the balance of payments. At the level of the firm, business managers view productivity as influencing management decisions on things like wage levels, cost-price relationships, capital investment and competitive positioning. But wide concern does not necessarily imply wide understanding.

Productivity has little meaning except on a comparative basis. It is changes in productivity over time that really matter. The object of productivity measures is to relate real physical output to the real resources that produced that output. So measures of productivity represent output divided by input. That is easy enough.

At the national or macro level, productivity tends to mean an index of output per man hour — that is, labour productivity. This is logical, man hours of human effort is the basic resource used to produce all output for the economy as a whole, including basic materials or productive equipment.

Misleading or inadequate

But this measure is not necessarily appropriate at the level of the firm, except perhaps in simple, labour-intensive operations. In complex industrial processes it may be misleading — or at least inadequate to the kind of detail required for corporate management decisions.

This is because the labour productivity index is a partial productivity measure, as opposed to a total productivity measure, where total output is divided by total input. Partial measures divide total output by only part of the input needed to make that output. This is their major problem.

For example, if a company, say Zigzag Machine Tools, starts buying a higher grade raw material, it will require less time to produce its finished product. This will naturally raise output per man hour. However, the raw material costs more — let's say the increased costs are exactly equal to the labour savings. So, overall, Zigzag's productivity has not risen. But the reduced labour time would show up as an improvement on the partial productivity index. And this could have consequences. Labour could use it as a basis for increased wage demands. Stockholders could press for a higher dividend. The fact that labour savings have been passed on to the supplier

in higher raw material costs, and Zigzag's total productivity has not risen, is ignored.

What is needed is a comprehensive measure of productivity performance that will enable management to work backward to uncover the positive and negative contributions of each organisational unit within the firm. An example of this is an aggregate or total productivity measure, called the Craig-Harris measure, developed in the US. This compares current performance to performance in some past period through the use of an index, adjusted for the effects of inflation. More important, it breaks down input into different components, enabling managers to assess the contributions of each to changes in total productivity.

The measure is based on a service flow model. Total output (Ot) is divided by total input to yield total productivity (Pt), the conventional approach. But total input is separated into several different categories of physical inputs. These are converted to rand equivalents which are seen as payments for the services provided by those inputs. They are categorised as labour (L), land and capital (C), raw material and purchased parts (R) and other miscellaneous goods and services. These, as well as output factors, are expressed as base year rand values.

The formula becomes

$$Pt = \frac{Ot}{L + C + R + Q}$$

CHECKS AND BALANCES

The productivity equation in the "normal" base year might look like this

$$Pt = \frac{170}{70 + 30 + 50 + 20} = 1$$

One year later, assuming no real increase in total output, it might look like this

$$Pt = \frac{170}{60 + 30 + 60 + 20} = 1$$

This shows, as in the example above of Zigzag Machine Tools, that real expenditure on labour has fallen for the same real output. A partial productivity measure would reflect this as an improvement in labour productivity. The aggregate index, however, shows that raw material costs have risen to compensate for it, and productivity overall has not changed.

Ot is the sum of all units produced times their selling price, plus revenue received from sources other than production, like dividends and interest. (A strength of this model is that it uses units produced rather than units sold in calculating productivity, since some units may not be sold in the same time period in which they were produced.) L is man hours times base year wage rates, R is raw materials purchased times base year prices, and Q (remaining inputs) is things like utilities, government service, advertising, etc., all in base year terms.

Capital input

The definition of capital avoids depreciation-based measures, which are criticised as assessing capital consumption rather than the value of the services of capital. One way of measuring this service value is to assume that the company has a leasing subsidiary to buy land, buildings and equipment. The capital input term becomes the payment made to the leasing subsidiary.

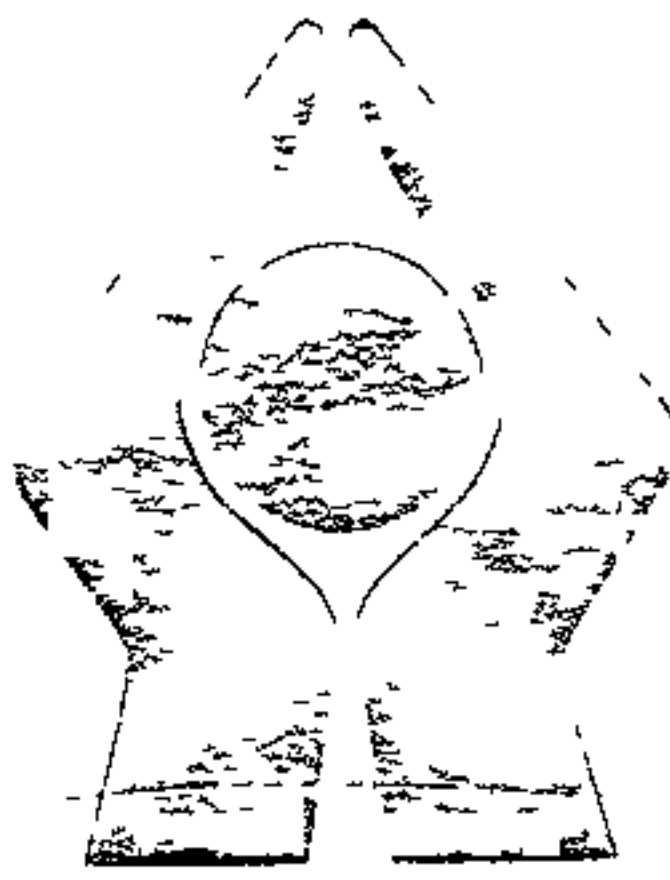
Apart from its ability to generate a picture of total productivity changes, this measure has two decided strengths. If a base year as close to "normal" in terms of the relationship between input and output is chosen, the value of the equation has meaning in itself, without it being necessary to compare it to some other time period. In other words, if the base year value of the whole equation is 1, the value of the equation in subsequent years can be immediately assessed in terms of how far, and in what direction, it deviates from 1.

It can also take account of the productivity contributions of research and development and advertising expenditure. If the contributions of these are believed to extend into the future, beyond the year of measurement, their expenditures can be capitalised.

Accurate productivity measurements that reach into every single component of a company, possibly even able to assess each employee, have obvious advantages. They offer managers a rational basis for price, wage, tax and dividend policy, and for striking more effective balances of input factors in the production process. Admittedly, being able to measure productivity is not the same as improving it. But it is a necessary beginning.

□ Based on a paper written by Jack Goodwin, associate professor at the School of Business Administration at Emory University, Georgia, US, and published under the auspices of the Witwatersrand University Graduate School of Business Administration.

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SANLAM

ECONOMIC SURVEY

MARCH 1984

CONTENTS:

- 1. International economic conditions**
- 2. The South African economy**
- 3. Productivity in South Africa**

This survey has been compiled by Sanlam's Economic Research Department and is presented to you with our compliments. Afrikaans copies are available on request.

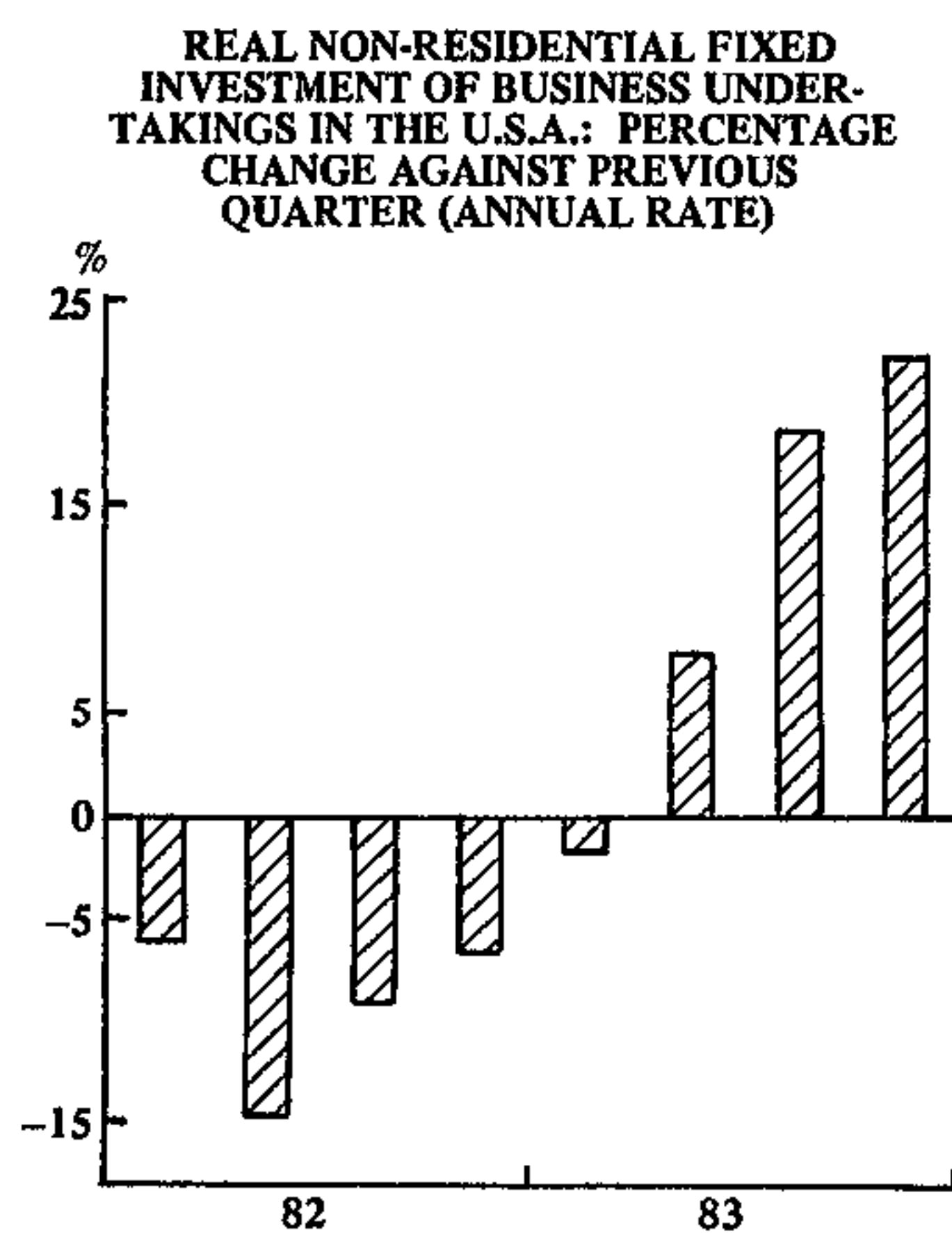
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1. INTERNATIONAL ECONOMIC CONDITIONS

The rate of economic expansion in the U S A decelerated appreciably during the last quarter of 1983. In this quarter the real gross national product grew at a seasonally adjusted annual rate of 4,9%, compared with growth rates of 7,6% and 9,7% in the third and second quarters respectively. This easing resulted largely from decreased exports. However, indications are that the economic growth rate has accelerated again in the first quarter of this year.

We foresee that the U.S A economy will maintain a relatively rapid expansion rate for the rest of 1984, especially owing to further rebuilding of inventories and a recovery in fixed investment by the business sector. The inventory/sales ratio is currently at its lowest level since the early seventies.

Capital expenditure by business undertakings exceeded all expectations in 1983. Their real fixed investment in the last quarter of 1983 rose at an annual rate of 22,4%, after increases of 18,6% and 8% in the third and second quarters. The major portion of the rise resulted from investment in durable equipment; this soared by approximately 28% in the fourth quarter of 1983. What is more. The 18% increase in investment in durable equipment in the first four quarters of the present upswing phase is almost 2,50 times



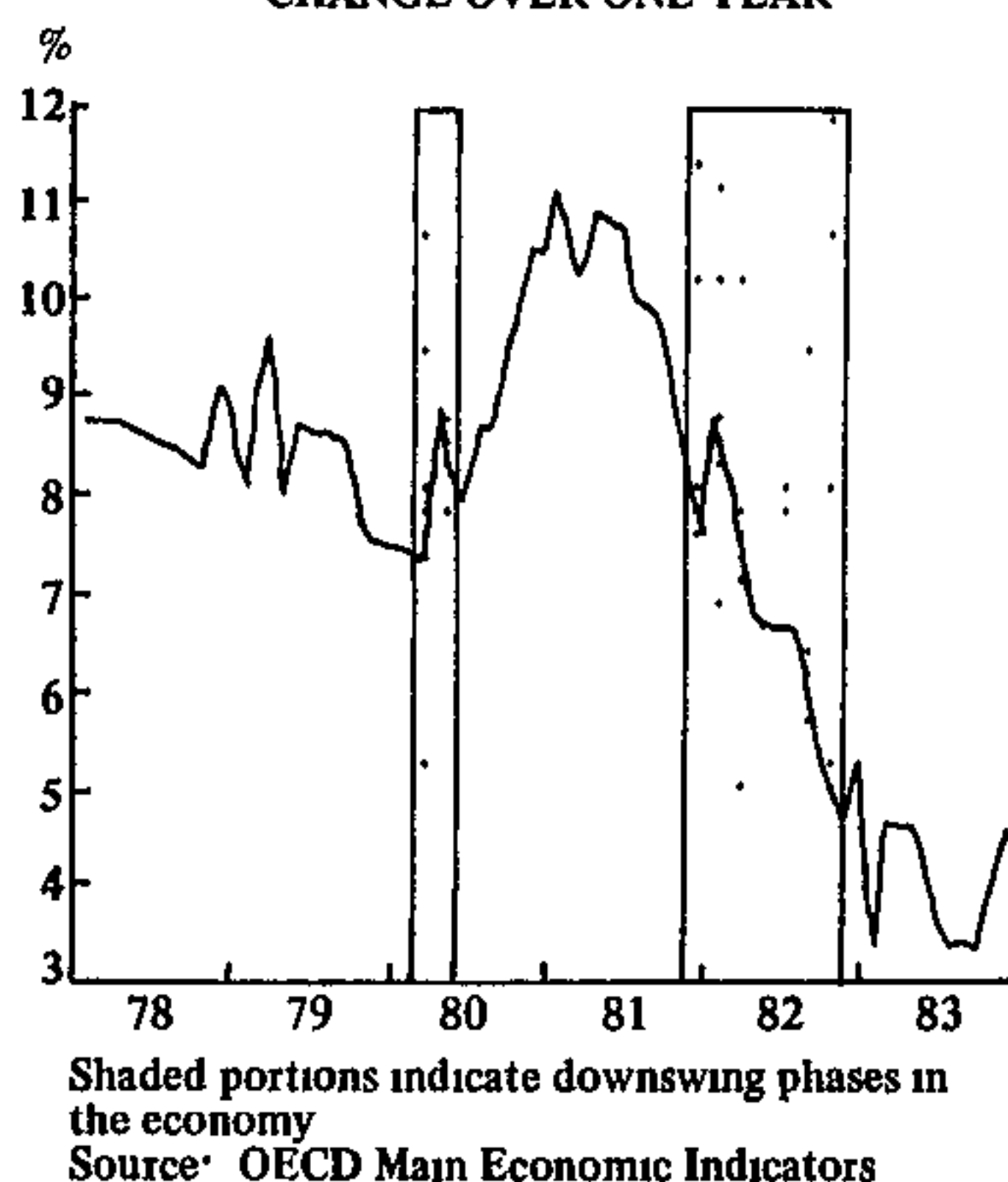
Source: U.S.A. Commerce Department

as fast as the average of the previous five such phases. Capital expenditure on new industrial plants rose by 5% in real values in the second half of 1983. And now that the average level of capacity utilisation in manufacturing has reached the 80% mark — traditionally the level that stimulates capital expenditure — a further acceleration may be expected in this investment component as well. The Commerce Department estimates that capital expenditure on plant and equipment will rise by 12% in 1984 as against a decline of 4,2% in 1983.

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HOURLY EARNINGS IN THE U.S.A.
INDUSTRIAL SECTOR: PERCENTAGE
CHANGE OVER ONE YEAR



It is noteworthy, too, that the rate of wage gain has plunged sharply over the past two years. Hourly remuneration of factory workers, for example, was a mere 4% higher in 1983 than in 1982. This is the lowest annual increase since 1965. Wage adjustments in terms of major wage agreements closed in 1983 amount to an average 2,6% for the first year and 2,8% over the remaining contract period. Corresponding contract hikes replaced by these were 9,3% and 6,8% respectively. (These figures do not include possible adjustments for increased cost of living.)

Thanks to these moderate wage adjustments and the satisfactory improvement in productivity, unit labour costs in the private business sector are now rising at a considerably slower rate than in the preceding five years — a course of events which should assist in pegging the inflation rate at relatively low levels in the foreseeable future.

According to President Reagan's budget proposals, the deficit for the 1985 financial year will be in the region of 180 billion dollars. This compares with the projected shortfall of 184 billion dollars for the current financial year. In view of this we may expect interest rates to maintain high levels and any possible decline in the first half of 1984 to be short-lived. So, although it appears that the U.S.A. dollar has reached a peak, a drastic deterioration in the short term is unlikely.

In Japan there are signs that the economic recovery is gathering momentum. The sturdy 1983 export performance is beginning to have a stimulating effect on the domestic economy. (The current account of Japan's balance of payments showed a record surplus of 21 billion dollars in 1983, compared with one of a shade under 7 billion in 1982.) A marked revival in investment is expected this year and forecasts run that the real economic growth rate will accelerate to more than 4% as against the 3,2% estimated for 1983.



West Germany is also expected to experience a more rapid economic expansion rate. The government predicts a minimum 2,5% growth in the real gross national product this year compared with the 1,5% in 1983 and anticipates a 5% rise in real domestic capital expenditure.

There is a general feeling that the growth rate of the British economy will slacken somewhat this year. We think that the real gross domestic product will grow by 2,5% in 1984 as against the 2,8% of 1983. Up to now the recovery has chiefly been consumer-led but there is evidence of a resurgence in investment by the manufacturing sector. Estimates show that capital investment in this sector should appreciate by 6% — 7% this year — a sharp turnaround after the declining trend in the four previous years.

To summarise: Indications are that the recovery in world economy will firm further in the coming months. Increasing signs of a revival in fixed investment are particularly encouraging. This course of events will provide momentum to the growth phase and could create more favourable prospects for South African exports.

2. THE SOUTH AFRICAN ECONOMY

2.1 Business cycle trend

Various developments that could delay the awaited revival in the South African economy even further, have recently become evident whilst others have grown in intensity. We mention but a few.

- The deterioration in agricultural prospects. The lack of good rains in certain summer rainfall areas could result in another poor year for farming. This will prevent the agricultural sector from making its expected significant contribution to the economic recovery.
- The weaker balance of payments position. During the past four months the current account of the balance of payments has again been showing deficits. The prospects of a substantial surplus on the current account of the balance of payments for 1984 have also dwindled considerably as a result of the less favourable agricultural conditions (which means that South Africa will again be an importer of maize this year) and the indications that the gold price will not rise sharply in the short term. Considering the unfavourable state of our net gold and other foreign exchange reserves, it is clear that the economic policy makers will have to assign a high priority to the protection of the balance of payments.
- The signs that interest rates could remain high for quite some time.



- The further deterioration in the already poor financial position of private consumers. In the coming 12 months the rise in general sales tax from 6% to 7% will burden the economy with an estimated additional tax load of R700 million. Taking into account the further tax hikes likely to be announced in the budget, we may expect only a slight improvement in real private consumer spending in 1984. It therefore seems unlikely that there will be a noticeable increase in new capital spending by the private business sector before the middle of 1985

Although it would appear that the downswing in the South African economy reached its lower turning point as far back as the second quarter of 1983, we think that a sustained and significant upswing in general economic activity will not materialise before late this year. The actual course of events will depend largely on the gold price.

2.2 Inflation

Thanks to a marked deceleration in the rate of increase in food prices in January this year, the total consumer price index rose at a slower rate than in December 1983. Partly owing to this the January 1984 rise of 10,3% in the consumer price index in comparison with the corresponding month a year before, was the lowest since June 1978.

Percentage change in the consumer price index				
	<u>Compared with the previous month</u>		<u>Compared with the corres- ponding month a year ago</u>	
<u>1983</u>	<u>Food</u>	<u>Total</u>	<u>Food</u>	<u>Total</u>
August	1,38	1,18	11,8	12,2
September	1,25	0,64	11,8	10,9
October	1,34	1,01	10,8	10,7
November	0,38	0,52	10,5	10,6
December	0,80	0,66	11,8	11,0
<u>1984</u>				
January	0,48	0,55	10,2	10,3

Source: Central Statistical Services



However, in the months ahead various developments could curb a further decline in the rate at which the prices of goods and services rise. The 1% increase in the general sales tax as from 1 February 1984 will in fact cause the total consumer price index to rise sharply again in February. Other factors which will bring upward pressure to bear on prices are the hike of roughly 9% in both rail tariffs and postal rates, the higher fuel and sugar prices, possible increases in customs and excise duties, higher food prices owing to the sustained drought conditions in certain areas and the effect of the depreciation in the external value of the rand.

All in all we anticipate an average inflation rate of about 11% for 1984.

2.3 Balance of payments

Foreign trade account (R'm)			
	Exports ¹⁾	Imports ²⁾	Trade gap
1983			
August	1 705	1 535	170
September	1 676	1 317	359
October	1 551	1 513	38
November	1 872	1 440	432
December	1 683	1 882	–199
1984			
January	1 849	1 673	176

1) Including gold

2) Including oil and military equipment

Source: Commissioner of Customs and Excise

In January of this year the Republic's foreign trade account showed a surplus of R176 million, compared with a deficit of R199 million in December 1983. Taking net services and transfer payments to foreign countries into consideration, we estimate that the current account of the balance of payments showed a deficit of approximately R150 million in that month. This follows the estimated shortfall of R880 million in the final quarter of 1983.

A sharp rise in imports has been the major cause of the noticeable weakening in the current account of the balance of payments during the past few months. The high imports account was due mainly to increased mineral and agricultural imports. However, this rise in imports may be attributed largely to coincidental factors; a return to a more normal trend may be expected in the months ahead.



In addition there are encouraging signs of an improvement in our merchandise exports (mining exports in particular) and there is a good chance that this tendency will be strengthened in the coming months as the economic revival in the Republic's major trading partners gathers momentum.

However, the prospects that South Africa will again have to import an appreciable amount of maize this year (possibly to the value of R1 000 million), together with an assumed average gold price of 420 dollars per ounce, at this stage seem to indicate that the current account of the balance of payments will show no more than a moderate surplus. We estimate this to be in the region of R500 million, i.e. more or less the same as the surplus realised in 1983.

2.4 Interest rates

We expect that the tight conditions in the money and capital market will continue for the next few months but that the liquidity situation will subsequently improve to such an extent that downward pressure will be exerted on interest rates.

The anticipated easing in the financial markets is expected to arise from an improvement in the net gold and other foreign reserves and a levelling off in domestic credit extension. However, continued low-level domestic saving as a result of the weak financial position of individuals, poor company profits, possible further tax increases and the drought will hamper the development of easier liquidity conditions.

Apart from a moderate surplus on the current account of the balance of payments, we believe that various other factors could have a beneficial effect on the capital account.

- The prospects of a strengthening in the external value of the rand as a result of an improved gold price, the attendant moderate surplus on the current account and a weaker U.S.A. dollar will create a climate conducive to an influx of net short-term and long-term capital.
- The expected favourable interest rate differentials between South Africa and overseas countries (especially the U.S.A) will promote the flow of short-term capital to South Africa
- The relatively high domestic interest rates and the stronger rand/dollar exchange rate will encourage South African importers to continue negotiating uncovered foreign loans and to renew existing loans — which could lead to an inflow of short-term capital

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- Foreign interest in South African investment opportunities could pick up in 1984 as the gold price firms, as the South African economy starts moving out of the recession and in the expectation that the rand exchange rate will strengthen. This could lead to an appreciable rise in the number of shares bought by foreigners on the Johannesburg Stock Exchange and may in fact even result in net purchases, as against the more than R1 000 million that left the country by way of net sales in 1983.

We foresee little change in short-term interest rates in the next few months, but expect these rates to ease subsequently as liquidity conditions improve in the money market.

In the past weeks long-term interest rates have fluctuated appreciably in sympathy with the gold price. However, the high loan requirements of the public sector will (particularly during the second quarter) counteract the expected underlying easing in the capital market. In consequence, we foresee only a limited decline in long-term interest rates in 1984.

3. PRODUCTIVITY IN SOUTH AFRICA

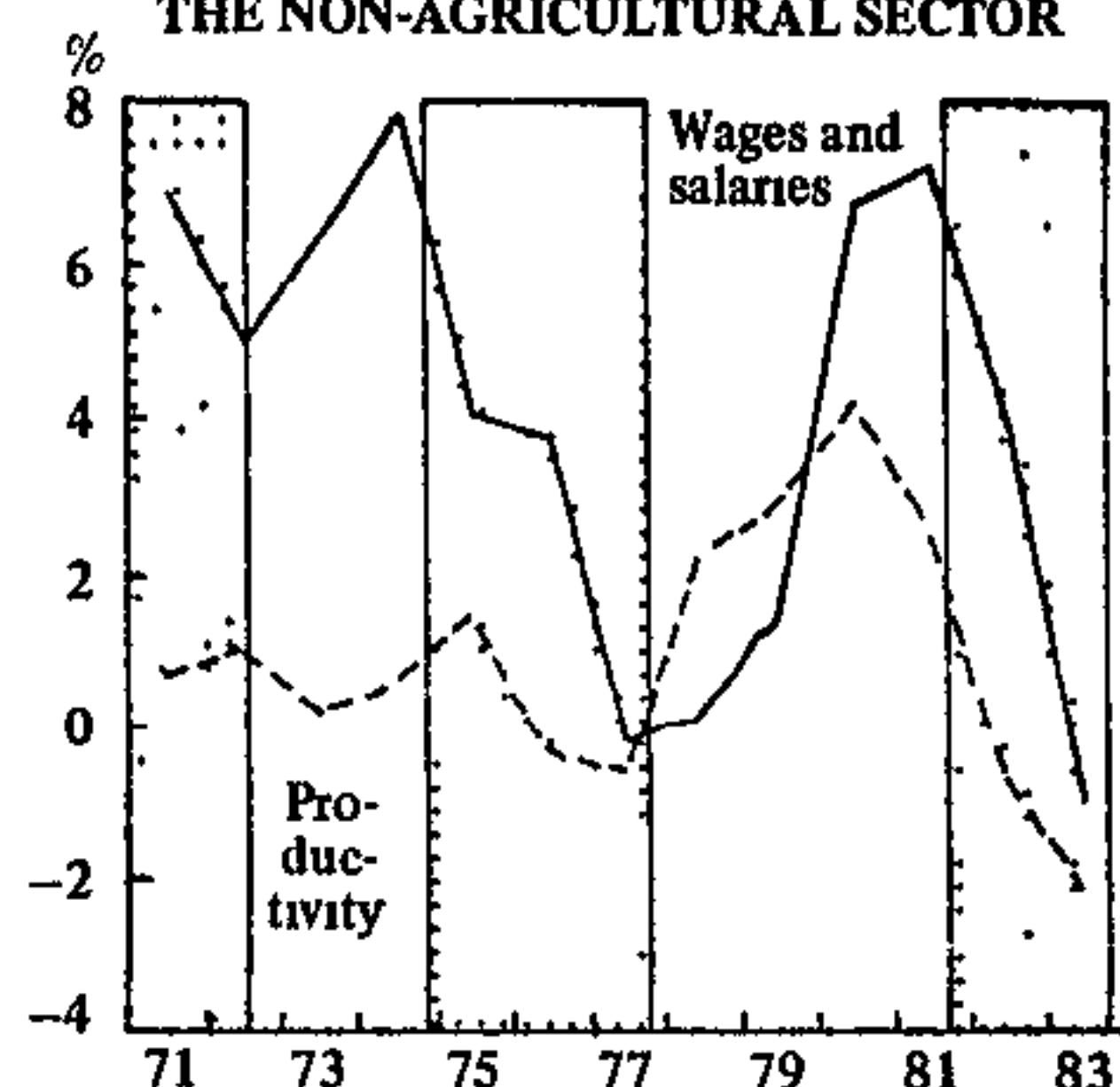
Productivity constitutes better and more effective utilisation of all means of production (inputs) to ensure maximum output at minimum cost. The purpose of productivity is therefore to raise the level of general wealth by making better use of scarce economic resources in the production process.

The importance of productivity cannot be overemphasized because it influences a country's economic growth, inflation rate, foreign competitiveness and consequently also the balance of payments. A satisfactory productivity performance is essential to a developing country like South Africa which has to aim for a high economic growth rate. So, the low level of South African productivity compared with that of our leading trading partners is a source of deep concern. From 1972 to 1981 labour productivity in the U S A. and West Germany was about four times and in the United Kingdom and Japan roughly twice that of South Africa.

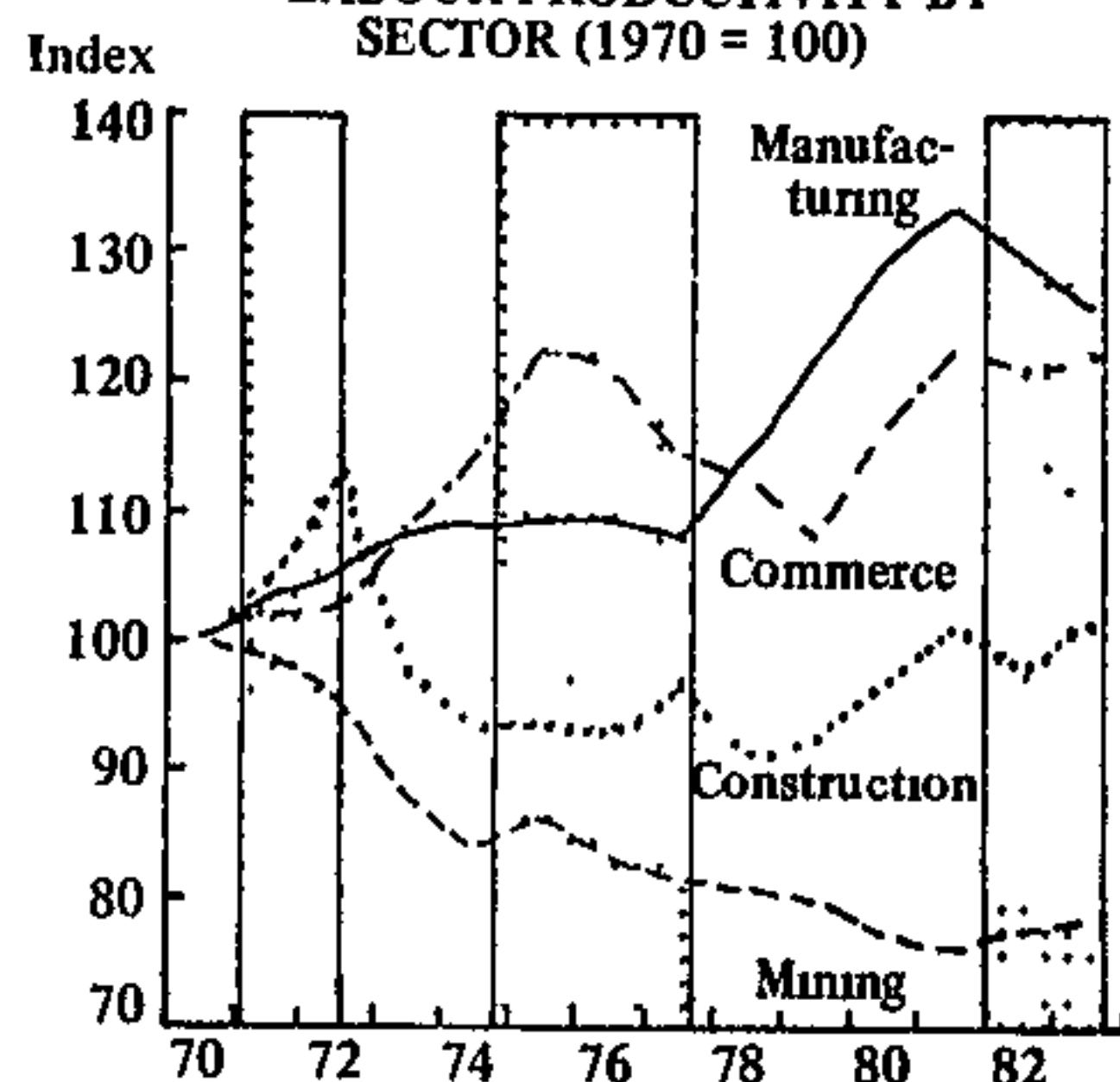
Labour productivity in the non-agricultural sector of the South African economy has improved by 0,9% per annum on average since 1970. This represents only approximately 31% of the average annual economic growth rate in the output of the non-agricultural sector for the same period and compares adversely with the corresponding figure of 60% and above of our main trading partners. Against this, real wages



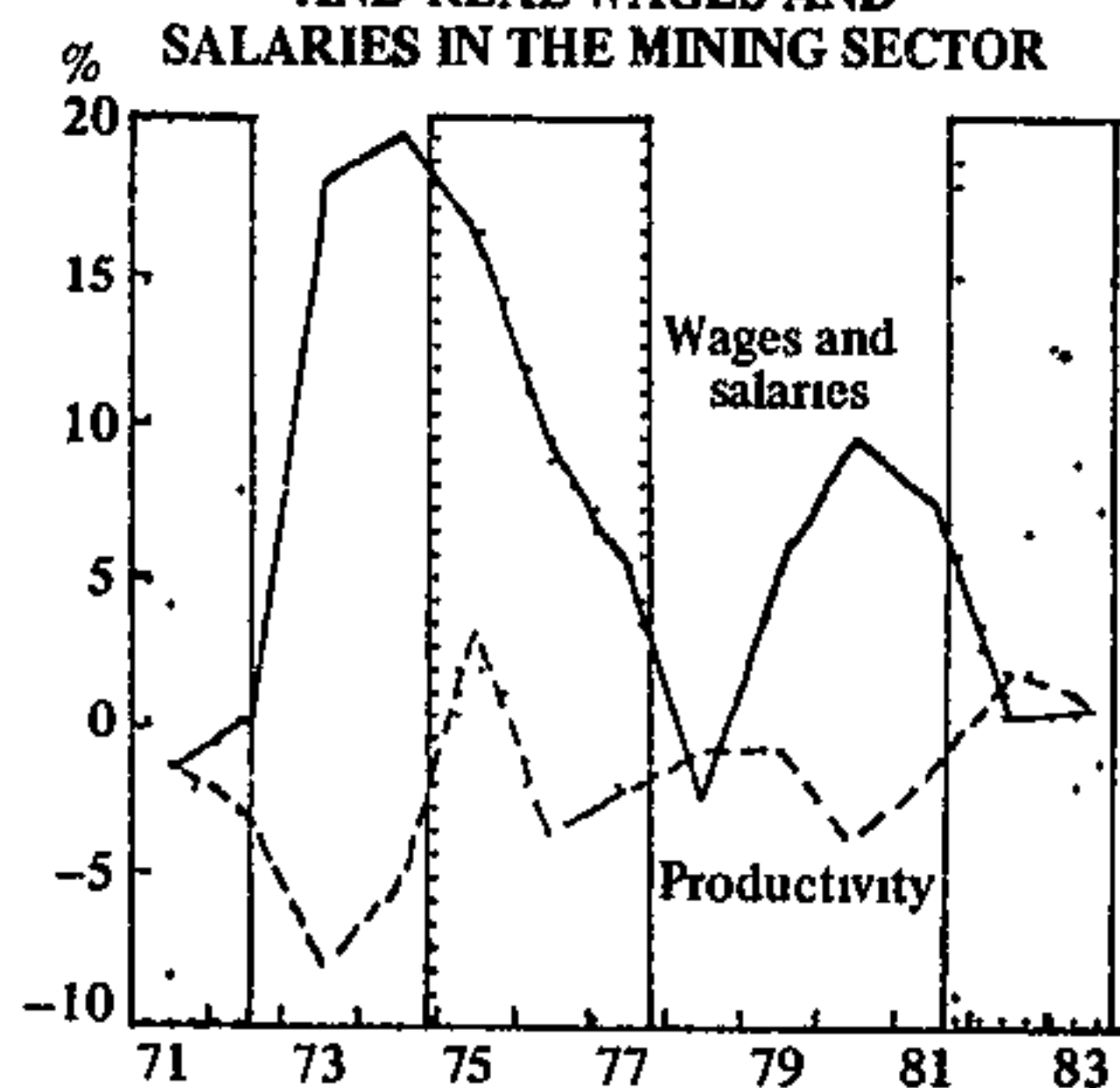
PERCENTAGE CHANGE IN
LABOUR PRODUCTIVITY AND
REAL WAGES AND SALARIES IN
THE NON-AGRICULTURAL SECTOR



LABOUR PRODUCTIVITY BY
SECTOR (1970 = 100)



PERCENTAGE CHANGE IN
LABOUR PRODUCTIVITY
AND REAL WAGES AND
SALARIES IN THE MINING SECTOR



Shaded portions indicate downswing phases
in the economy
Source: National Productivity Institute;
1983 our estimate

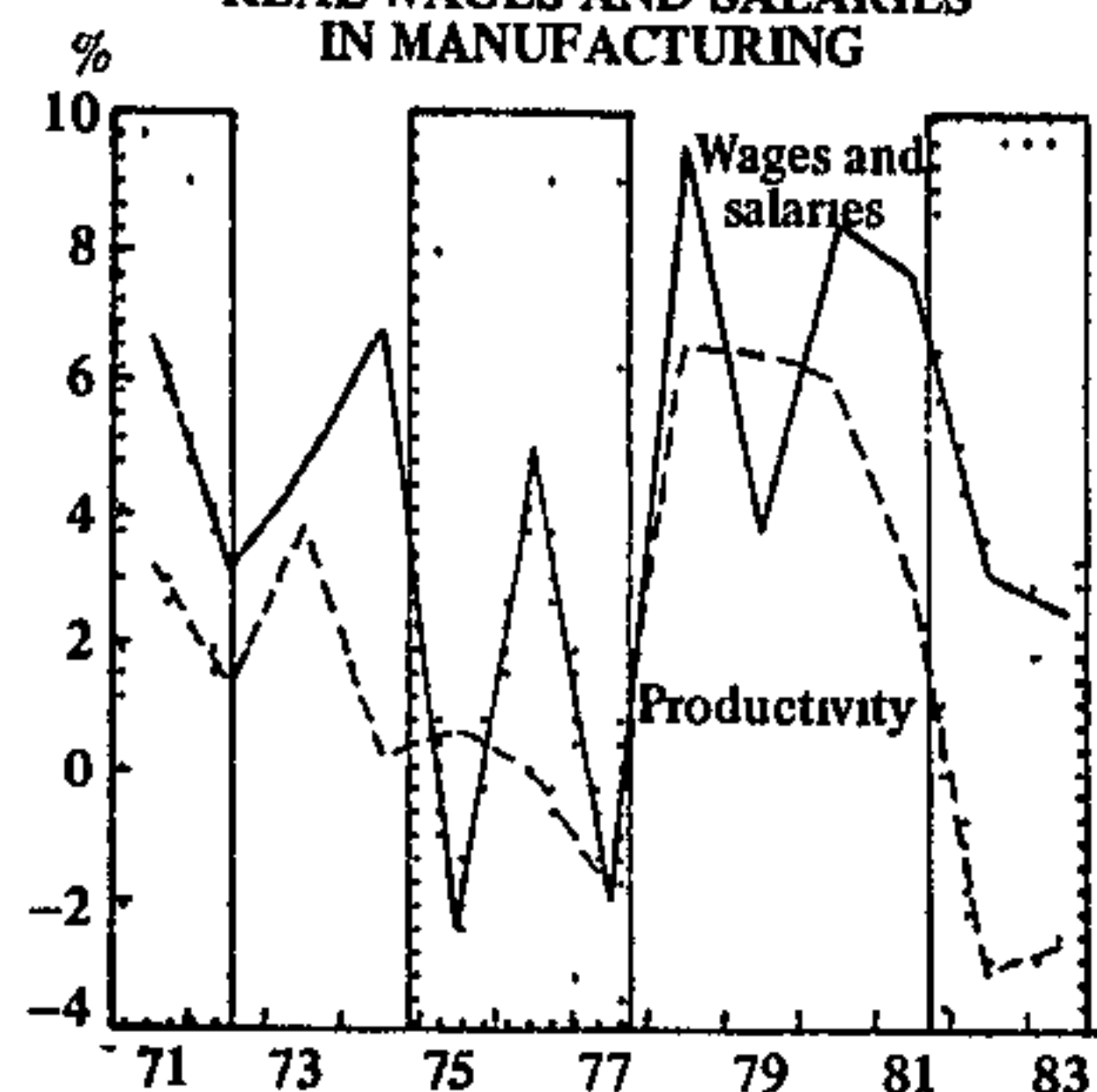
and salaries have risen by an average 3,9% per annum in South Africa since 1970 — a step not justified by the realised improvement in productivity. (The only exception was the period from 1977 to 1979 when real wages and salaries increased more slowly than labour productivity.) This course of events is related to the chronic shortage of skilled labour and attempts to narrow the wage gap.

An analysis of the productivity performance of various sectors of the South African economy demonstrates that only manufacturing and commerce showed a significant rising trend over the period 1970 to 1983. For example, labour productivity in 1983 compared with that of 1970 was 26% higher in manufacturing, up 22% in commerce, 2% higher in construction and 22% lower in mining. (The weak productivity performance of the mining sector stems partly from deeper level mining and lower grade ore in gold mines.) The mining and construction sectors are therefore largely responsible for the poor labour productivity growth rate in South Africa since 1970.

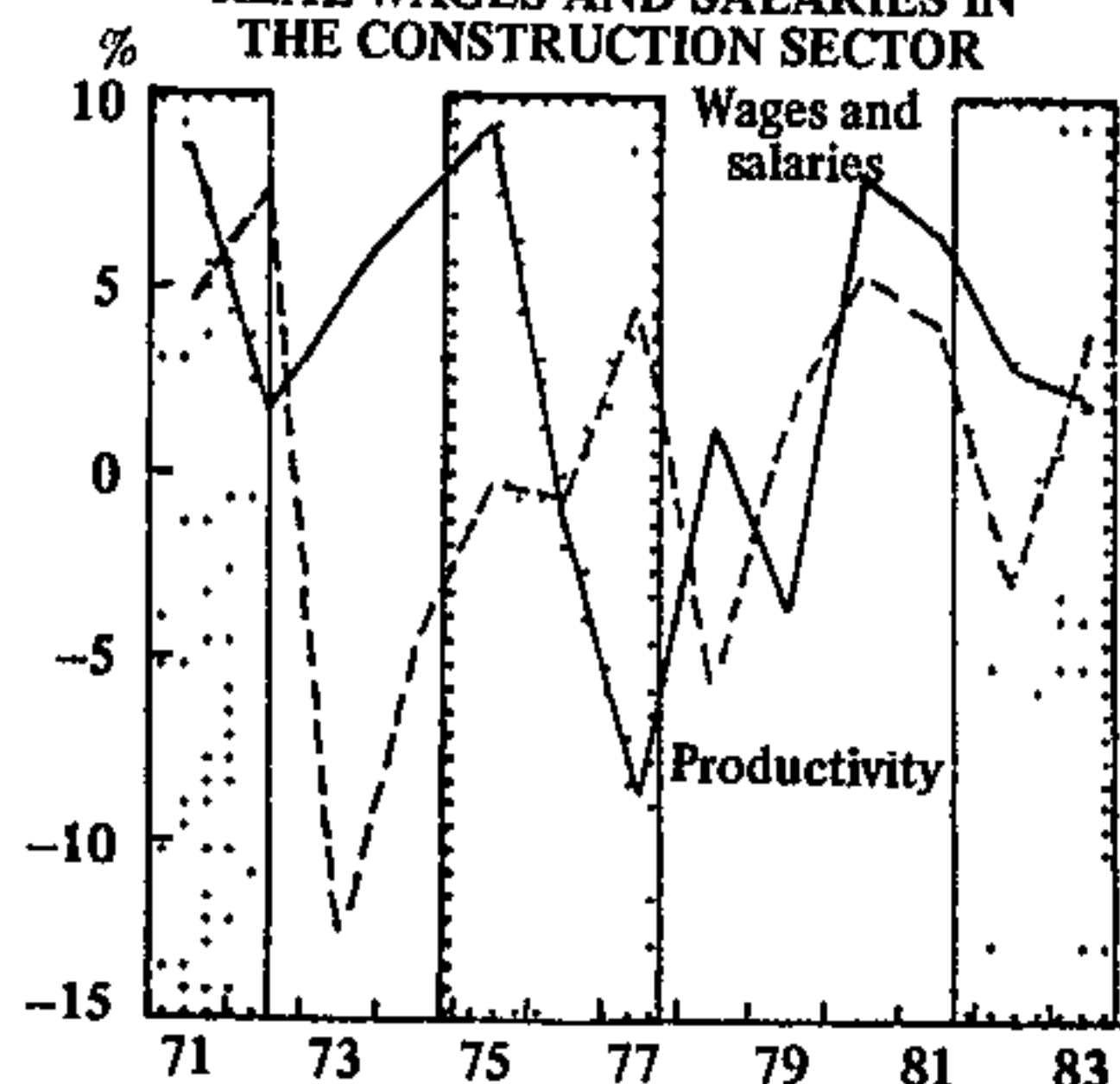
It is informative to compare changes in labour productivity with those in real wages and salaries in each of the four sectors named. In mining, real wage and salary gains have been 6,4% per annum on average since 1970. Against these, labour productivity has decreased by an average 1,9% per annum.



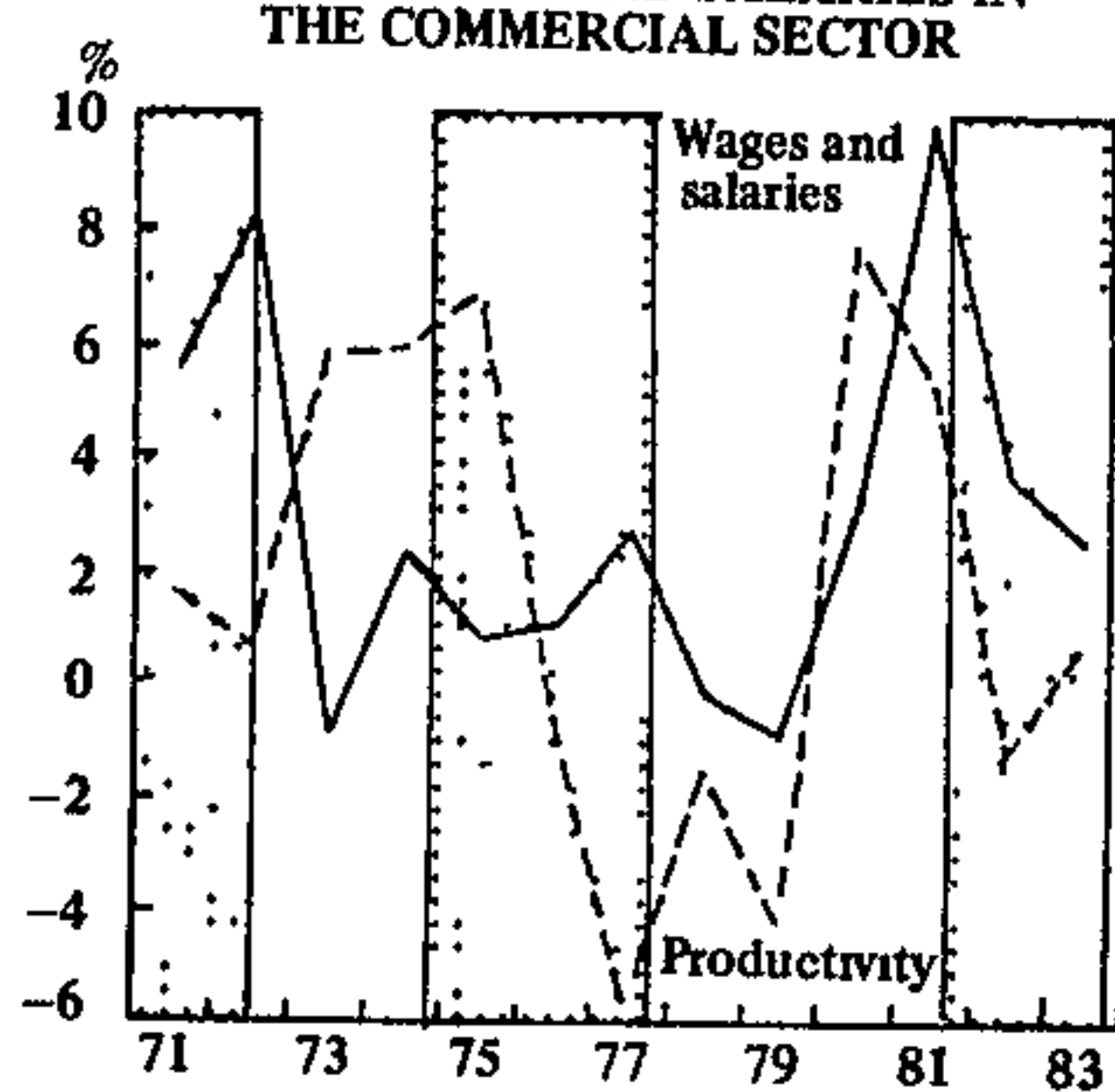
PERCENTAGE CHANGE IN
LABOUR PRODUCTIVITY AND
REAL WAGES AND SALARIES
IN MANUFACTURING



PERCENTAGE CHANGE IN
LABOUR PRODUCTIVITY AND
REAL WAGES AND SALARIES IN
THE CONSTRUCTION SECTOR



PERCENTAGE CHANGE IN
LABOUR PRODUCTIVITY AND
REAL WAGES AND SALARIES IN
THE COMMERCIAL SECTOR



Shaded portions indicate downswing phases
in the economy
Source: National Productivity Institute;
1983 our estimate

Manufacturing has realised an average increase of 1,8% per annum in labour productivity and 4,3% per annum in real wages and salaries. This rise in labour productivity represents about 54% of the average annual growth in factory output since 1970.

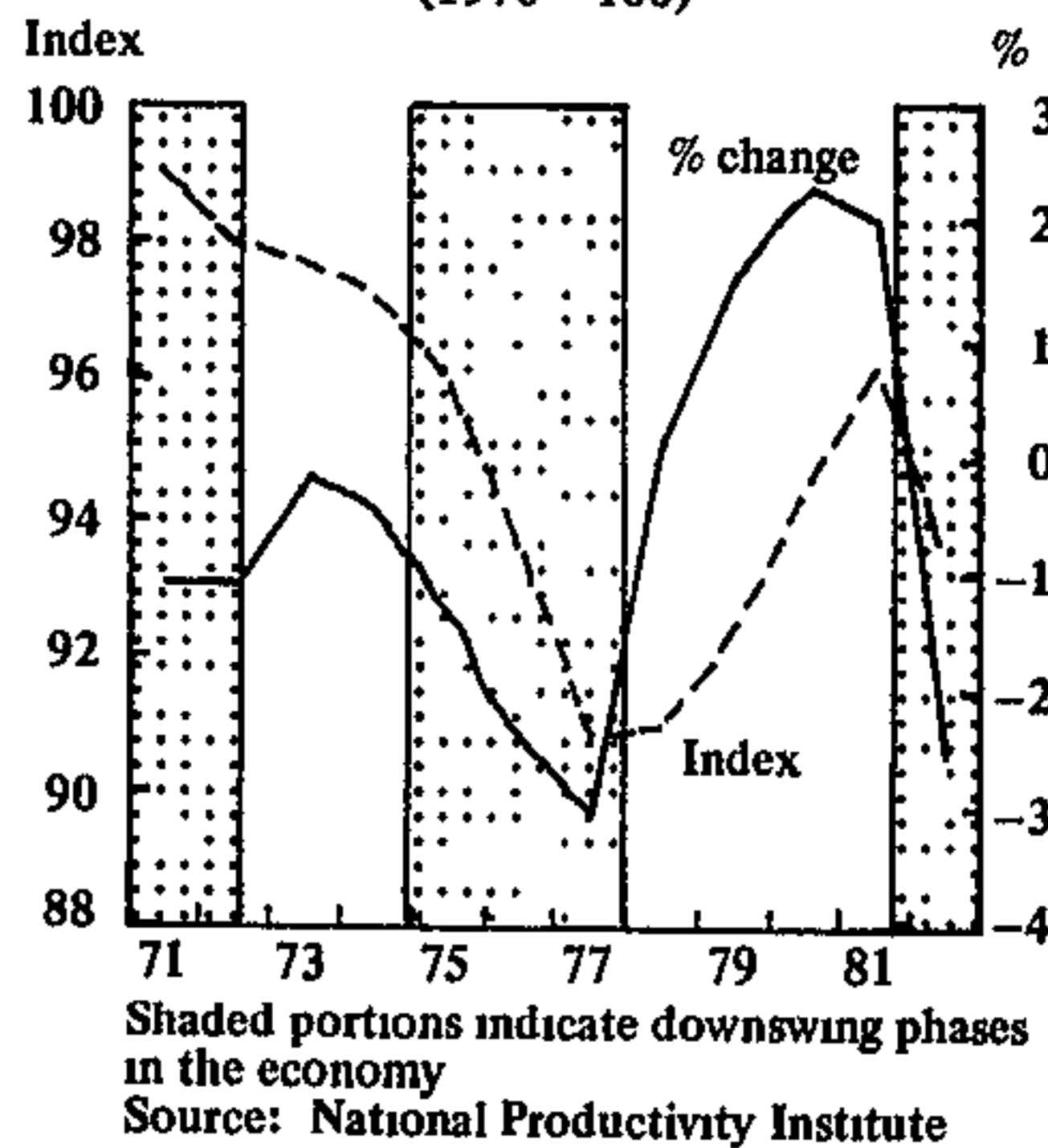
In construction real wages and salaries have shown a 2,7% annual gain on average since 1970 whereas labour productivity has improved by only an average 0,1%. Against this, output has risen by 3,4% per annum on average since 1970 and the improvement in labour productivity represents a mere 3% of this growth.

In commerce labour productivity since 1970 has increased by an average 1,6% per annum compared with a corresponding 3,0% hike in real wages and salaries. Commercial output has risen by 3,2% per year on average over the same period and improved labour productivity represents roughly 50% of the average annual growth in commercial output since 1970.

However, labour is not the only factor to influence the general level of productivity of a country, a sector or even a single undertaking. It is essential also to include the other basic production factor (viz. capital) in calculating productivity. This



MULTIPLE INPUT PRODUCTIVITY IN THE NON-AGRICULTURAL SECTOR (1970 = 100)

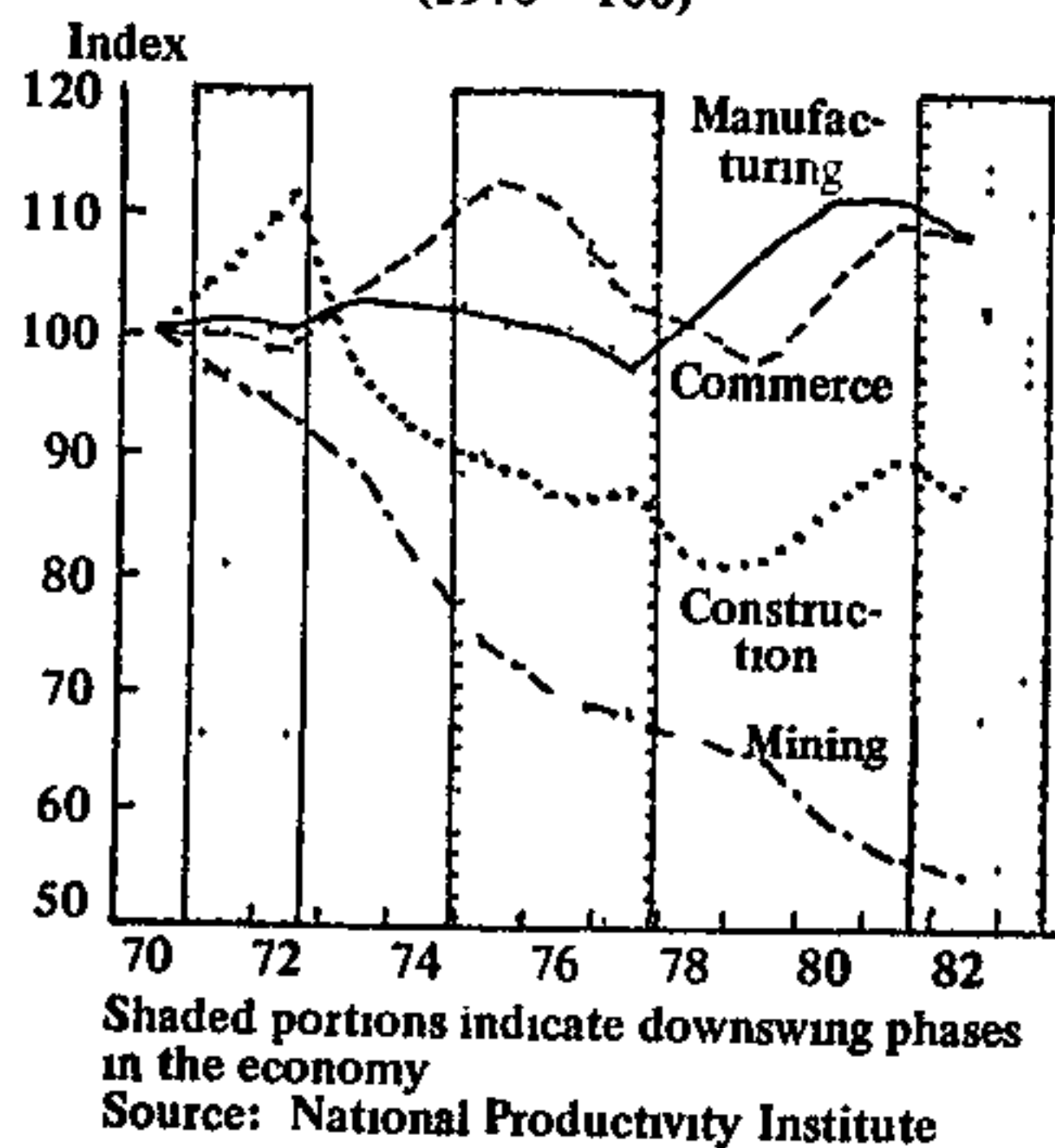


gives rise to the so-called multiple input productivity measurement or real output per unit of labour and capital

As there has been an increasing movement from labour-intensive to capital-intensive production techniques in South Africa since 1970, the capital-labour ratio was 56% higher in 1982 than in 1970. Multiple input productivity decreased by an average 0,5% per annum between 1970 and 1982 as against the 1,1% improvement in labour productivity. From this it is clear that capital exerted a negative influence on the general level of productivity.

As regards multiple input productivity in the various sectors, only manufacturing and commerce showed positive annual growth rates on average from 1970 to 1982, viz 0,7% and 0,6% per annum respectively. Mining and construction experienced average annual drops of 5,0% and 1,3% respectively.

MULTIPLE INPUT PRODUCTIVITY BY SECTOR (1970 = 100)



In 1982 the capital-labour ratio was respectively 81%, 37%, 73% and 100% higher in mining, commerce, manufacturing and construction compared with that of 1970. This intensified application of capital in the production processes of the four sectors did not improve productivity, however, because the multiple input productivity of the various sectors was poorer than the corresponding labour productivity throughout, a phenomenon which indicates that capital productivity has weakened.

From the above analysis the following deductions about productivity in South Africa may be made:



- Productivity in South Africa compares unfavourably with that of our leading trading partners. This may be ascribed, inter alia, to the fact that the level of training among workers in South Africa is considerably lower than in the industrialised countries.
- Poor productivity performances in mining and construction have contributed largely to South Africa's low productivity.
- The increase in real wages and salaries in mining, construction, manufacturing and commerce has not been supported by corresponding productivity performances.

These developments have serious implications for the South African economy.

- Low productivity and unjustified raising of wages and salaries push up unit labour costs and thereby exert upward pressure on prices. This weakens South Africa's position in foreign competition and exerts downward pressure on the external value of the rand, with attendant inflationary implications.
- Economic growth is hampered by this low productivity and high inflation.
- The greater accent on capital-intensive techniques and the obviously poor utilisation of capital make it even more difficult to provide adequate job opportunities for our rapidly growing labour force.

Responsibility for productivity rests at management level because that is where optimal application of production factors should be sought. The shortage of managers in South Africa is therefore a serious shortcoming. Further, improving productivity is a slow and difficult process which inter alia comprises training and educating the labour corps. At the same time it is of paramount importance for each worker to realise that wage and salary gains without corresponding improvements in productivity are not justified. Finally, it is essential that all South Africans be made more aware of the absolute necessity of a satisfactory improvement in productivity and the advantages this may hold for the country and themselves.



PRODUCTIVITY

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FM

24/9/82

More pay for less work — why?

After two years of sinking gold prices, the government's economic development programme lies underwater. Optimistically, government planners announced in 1978 that real growth rates for the following decade would average 4,5% a year. Just four years later, though, Cabinet Ministers are championing austerity and Reserve Bank Governor Gerhard de Kock is predicting 1% real growth rates for the next two years. If De Kock's suspicions are correct, the average growth rate for the first half of SA's 10-year plan will be 3,5%.

In the midst of an international recession, such a growth rate might appear enviably high. It is, however, a deceptive figure. For the growth over the past four years has not been the result of any significant increases in real productivity. Instead, it has been buoyed up mainly by the prices of gold and some other commodities.

Unfortunately, it could not have been otherwise. By any measure, SA has a dismal record of productivity improvements. From 1970 to 1980, the country enjoyed an average real growth rate of 3,1% a year, yet productivity growth

development over the decade grew out of better labour productivity; the rest was little more than good luck in commodity markets. Jan Visser, director of the National Productivity Institute, says that the idea of producing more with less is a foreign one to SA. "Businessmen have spent years getting more out of more," he says, "since cheap labour and minerals have always been plentiful."

Without increasing productivity, economic growth dwindles toward stagnation. Industrial production slows, costs increase and governments are called to the rescue with subsidies which only institutionalise inefficiency. Despite the real dangers of neglecting productivity growth, its contribution to SA's economic growth is among the lowest in the world. In Europe and America, productivity improvements make up two-thirds of the growth. By itself, the US holds a record of unique efficiency. Over the past 90 years, it has maintained an average yearly growth rate of 2,4% and has achieved a high absolute level of productivity. One man-hour of labour in the US yields 10 times the output of the world average.

One of the major hindrances to SA's economic programme is that real wages have far outstripped productivity growth. From 1972 to 1981, non-agricultural workers were paid 20% more for boosting productivity by only 4%. We are not alone, however, in our problems with rising labour costs. Between 1979 and 1981, unit labour costs in England rose 40%, while those of its competitors rose only 12%. SA may be alone, though, in the size of its problem during the same period, SA costs increased by an astounding 80%. Japan's costs, by comparison, fell by 9%. Economists stress, however, that cutting wages does not stabilise costs. The key lies in raising wages at the same rate that productivity grows. Without such parallel growth rates, any country builds cost-push inflation into its economy. For there is a disproportionate rise in the cost of meeting growing demand.

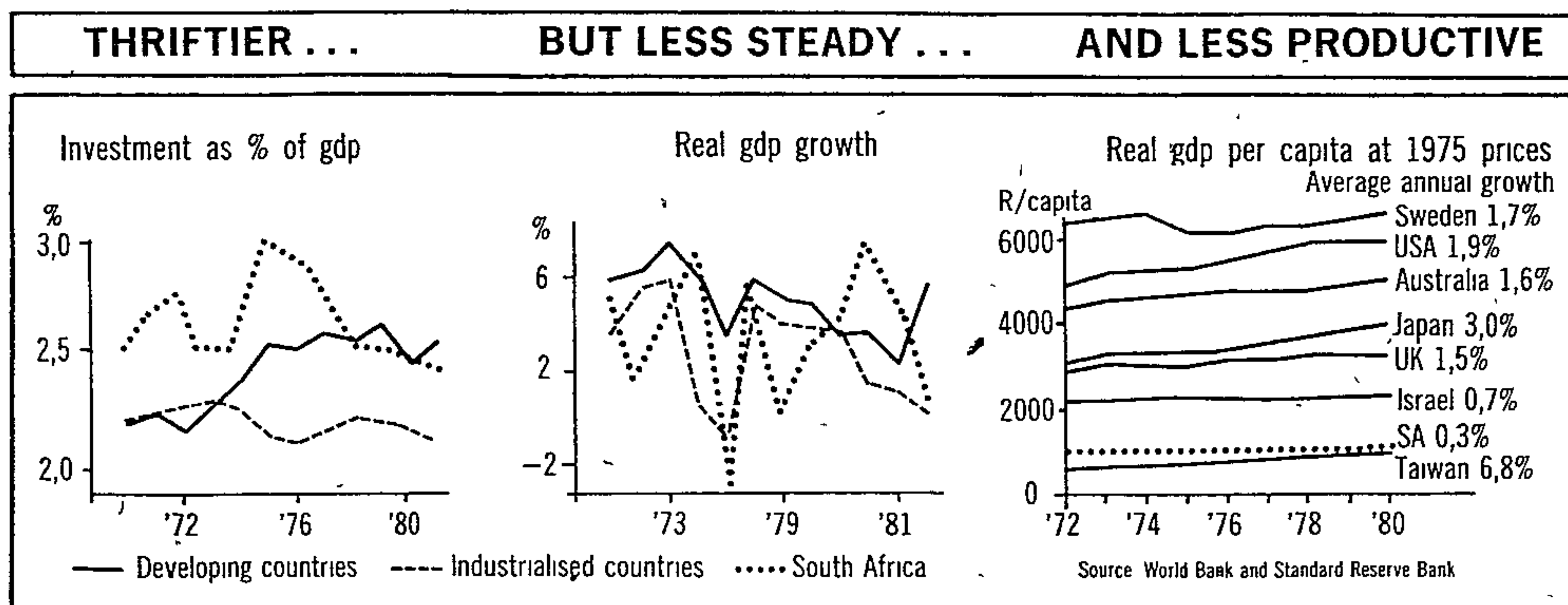
Analysts at Britain's National Institute of Economic and Social Research believe that the UK's problem lies not in shortages of capital investment, but in "underinvesting in knowledge of how to create and operate modern machinery efficiently." SA is in much the same situation, though far worse. As a nation, we have over the past decade invested greater shares of gdp in plant and equipment than both industrialised and developing countries. Yet our invest-

ment in human capital has taken woefully short.

Despite recent talk that SA's acute manpower shortage demands more extensive education and training for blacks, government spending has only belatedly recognised the priority. Expenditure on whites averages R640/year per student, the black average in white areas is R68. In its inimitable fashion, government has the education system upside-down. It underfunds black primary education and teaches skills largely irrelevant to pupils aspiring to jobs as artisans or professionals. Then it offers lavish tax benefits to companies with manpower training programmes which fall short of what would have been achieved if schooling had not been so poor.

Japan's economy has become remarkably productive in recent years because its workers have become as knowledge-intensive as its factories are capital-intensive. Britain's productivity growth has suffered in recent years because of trigger-happiness toward educational budgets, yet the UK has a distinct cultural advantage over SA which makes less spending less damaging. Manufacturing, however chequered its successes over the past 20 years, has been the way of life in England for the last century and a half. SA, by comparison, moved toward industrialisation only 50 years ago. Most economists agree that it takes several generations in developing nations to teach workers about sophisticated technologies and instil the value of industrial efficiency. SA wastes its resources and its potential by discriminating against the people who will in the short and long run contribute the most to raising the economy's real productivity.

We must learn, perhaps for the first time, that boosting income, employment and real economic growth requires increasing labour productivity. Increasing output at a faster rate than increased input does not, as many people believe, threaten job security. Indeed, it opens up prospects for job creation by reducing labour costs and increasing profitability. Greater efficiency can expand production volumes and contribute to lowering prices and increasing sales at home and abroad. Only when productivity is recognised as the necessary and practical goal of government and business will the country reduce its dependence on gold and nurture a manufacturing industry capable of meeting world competition. That, in turn, will help over time to raise and stabilise the country's rate of economic growth as the economy performs more efficiently.



Any dishonesty will render the candidate liable to disqualification and to possible exclusion from the University

Productivity: Disaster!

By Amrit Manga

WITH South Africa facing negative economic growth this year and production capacity utilisation on the decline, economists warn that higher productivity levels have become critical.

The manufacturing sector's production capacity utilisation index has fallen almost 3% to 87,6% compared with 89,9% recorded for 1981.

The rate of decline during the first three quarters of last year increased as the recession gained momentum, but slowed down during November, when a decline of 0,3% on the previous month's figure was recorded.

The textile industry, which makes up 6,2% of all manufactured goods, showed one of the steepest declines, with the production capacity index falling by 4,2 points.

Metal industries, excluding machinery and non-ferrous products, which contribute 9,2% of total manufacturing output, utilised about 2% less of its productive capacity than in 1981, when the index was 88,7.

Food production, contributing 10,6% of total manufacturing output, is the only significantly large sector which increased capacity utilisation.

The annual productive capacity index for 1982 was 87,2, which is 0,3 points higher than 1981's 87,5.

A drop in capacity utilisation and the inevitable decline in productivity during a recession is not unusual," says executive director of the National Productivity Institute Jan Visser. But should falling productivity levels be accepted as given?

SA is continually faced with dismal productivity statistics as indicated in the last decade, when an annual growth rate of 3,1% was recorded.

Productivity notably lagged behind with an unimpressive 0,3% during this period. Labour costs in SA between 1978 and 1981 increased 80% compared with Japan, where during the same period a decline of 9% was recorded.

"During 1982 wages increased 22% over the pre-

vious year, but output per worker increased by between 1% and 2% only," says Mr Visser.

In the light of such widely imbalanced increases, optimum utilization of productive capacity should be an overriding priority, since under-utilisation cost pressures are passed on to the consumer.

Cost-push inflation is aggravated when SA already run higher inflation levels than most of our trading partners.

Mr Visser says "The transition from a subsistence economy to a market economy increased participation of a wider group of people. This increased participation raised demand, but productivity failed to cope as consumption outstripped production."

In comparison, Japan was faced with limited resources which were acquired at high cost.

"It therefore became a priority for the Japanese businessman to ensure maximum output for minimum input, thus maintaining healthy productivity levels."

W.S.M
11/4/83
Toyota aims for 20% more ~~247~~

DURBAN — The Toyota plant at Prospection, Durban, which has produced its millionth vehicle, is investigating the possibility of increasing production by 20%.

Toyota Manufacturing, known formerly as Motor Assemblies, took 35 years to reach this milestone.

The 2-million vehicle mark is expected to be passed before the end of the decade. The plant is the biggest motor factory in Africa.

Its executive director, Mr Ralph Broadley, said that because a sudden upswing in the market could catch the

plant off guard, engineers were working on means to step up production from 400 to 500 units a day.

This would entail extending the paint section. The engine assembly section was being extended for manufacture of a new engine for light commercial vehicles.

Machinery costing R6-million would be required to build the engine, which would be in production in three or four months' time.

Other improvements to the engine plant comprised the machining of more parts and the equipment would cost R3-million. This plant would come on stream next year — Sapa

Figures wrong, says economist

Labour Reporter
ALLEGATIONS of a gross miscalculation of official economic statistics which would "virtually destroy the basis of existing government economic planning" are contained in a research paper on productivity produced by a University of Natal economist, Mr Charles Meth.

Mr Meth's findings are contained in a Federation of South African Trade Unions (Fosatu) publication released at the weekend. A Fosatu statement said the figures showed the "complete bankruptcy" of government economic policies and that such policies could not possibly resolve South Africa's "deep-rooted economic and social problems".

Mr Meth's two major findings are that the South African economy grew at 5,9 percent between 1970 and 1980 and not the officially accepted 3,6 percent, and that most productivity figures based on the national accounting statistics are wrong.

The major basis for his claims are a "gross miscalculation" in the official figures dealing with mining particularly gold mining. He shows that the 'current' value of output on the mines was 11 times higher at the end of the Seventies than at the beginning, largely because of the increase in the gold price.

Yet using the official Central Statistical Services (CSS) method of deflating the output — based on the amount of tons produced — the value of output is presented as having decreased in 'real' terms over that period.

Mr Meth shows that by deflating the value of output on the basis of the Consumer Price Index and the price index of materials, the "real" increase in the value of output on the mines was almost fourfold.

This would greatly alter the figures for the national output and show that South Africa's national growth rate was some two percent higher

than the official figures reflect.

Yet in spite of this very high rate of growth over a long period — more than five percent between 1960 and 1980 — South Africa still had poverty and unemployment on a 'massive scale'.

The paper also pinpoints various other "anomalies" in the national accounting statistics dealing with manufacturing and construction, and sets out to show that all productivity estimates for the total economy based on existing statistics are wrong.

'Outpourings'

The Fosatu statement said "This proves that the stream of accusations about low worker productivity are nothing other than uncritical anti-worker outpourings. What now seems a very much more correct story is that the increased worker productivity not only earned the increases in real wages but also resulted in marked increases in the surplus which went to the owners of wealth".

Dr C J Swanepoel, assistant head of the economics department of the South African Reserve Bank, said yesterday that he disagreed with Mr Meth, as the method of calculating real output on the mines adhered to international recommendations.

Professor Brian Kantor, head of the department of economics at UCT, said he could not comment overall as he had not seen the paper, but it was a fair point to make that the value of mining output was being understated.

Too late for classification

DEATHS

POZEL — Charles our beloved husband and father passed away peacefully 24 April. Deeply mourned and sadly missed by his wife Ray and daughters Jean and Matty. Prayers Monday and Tuesday 6pm at 7 Exmer Avenue Vredehoek.

Suzman sup

Own Correspondent
LONDON — Mrs Helen Suzman, South Africa's internationally-acclaimed MP yesterday said she welcomed the publication of "blacklists" of British and other foreign subsidies which underpaid black workers.

In an interview recorded for Britain's Channel Four television she said the blacklists should be encouraged.

The statement formed part of her argument to

interviewer John that industrial economic development save South Africa bloody revolution. The old days of ism and apartheid hand in hand were she said.

"It is industrial want the change want to be able skilled black labour the major opposition that has come from capitalists but from white trade unions."

6 die at week in road accident

Staff Reporters

SIX people were killed and 50 injured in 33 road accidents reported in the Peninsula at the weekend.

There were 183 assaults of which nine were fatal.

A six-year-old child, R Galant, was killed when she was run over by a car in Bottelary Road, near Kraaifontein, at 6pm on Saturday.

Mrs Lillian Rose Sprules, 64, of Kraaifontein, was killed in a car accident at the corner of Van der Buij Street and Eighth Avenue, Kraaifontein, at 11 30am on Saturday.

Her husband, Mr Joseph Sprules, 68, was admitted to Tyg Hospital with broken

mitted to Tyg Hospital with broken

A man of about 40, has not yet been identified, died in a motor accident in Franschhoek Drive, Elsie's between 4pm and Saturday. He was at Conradie Hospital he was certified on arrival.

A man not yet identified, was run over by a bus near the Stein Pavilion at 7 Saturday. He was at Victoria Hospital he died of his injuries.

Two unidentified people were killed in a car accident in Spine Road, Schell's Plain, on Sunday morning.

Detective shot dead

Own Correspondent

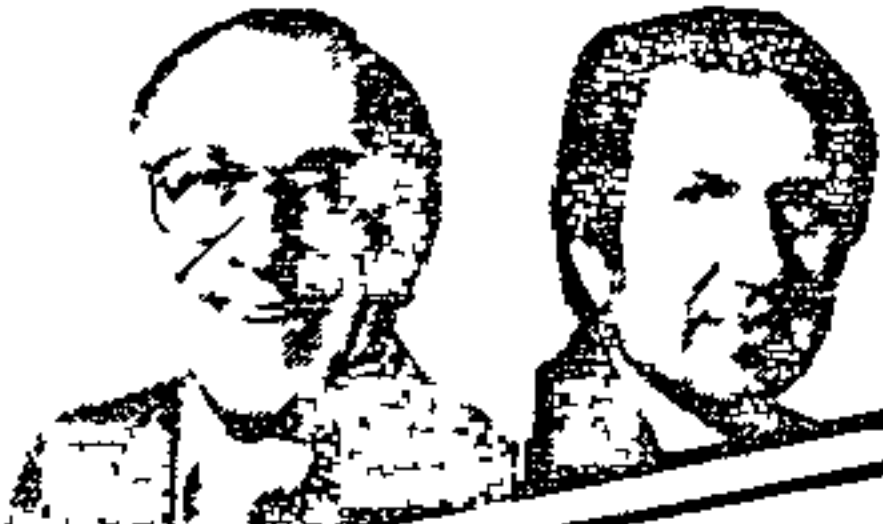
JOHANNESBURG — A Brixton Murder and Squad detective-sergeant was found shot dead at his home in Soweto at the weekend. He had been in the squad for 17 years.

Detective-Sergeant Mannikie Makhobo, found in the street with a bullet wound in the head. His body was discovered at 8 30am on Saturday about 1 000 metres from his house in M Street, Diepkloof, Zone 3. His service pistol is missing.

It is believed he was shot with a 9mm Brixton Murder and Robbery Squad detective yesterday that at this stage they were looking for possibilities.

Sergeant Makhobo is the second Brixton Murder and Robbery Squad sergeant to be shot in six months.

In 1977 Detective-Sergeant Ophen Chagun was gunned down outside his house in Rockville, as he opened the gate coming home one night.

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From the... nailed them." However, having gated the whole decided not to go further I do not CP has a case. It is understood senior sources were examined parliamentary records that the

Economics have central political role

Cape Times 28/4/83 (247) 154 21 789 335

Labour Affairs reporter PHILLIP VAN NIEKERK says wage bargaining will be tough by people for whom unemployment and poverty are burning issues

THE claims by a University of Natal economist, Mr Charles Meth, that the government's productivity figures are all wrong could create quite a stir between employers and trade unions, already squaring up for the toughest round of wage bargaining in years.

Both the government and employer groups have made calls for a wage freeze based on the continuing recession. But with inflation still soaring, it is not going to be easy to convince workers to accept an effective drop in income.

In the metal and mining industries, in particular, a clash of demands has already become apparent.

The argument commonly put forward to justify a wage freeze is that real wages rose during the past few years without a corresponding increase in productivity. During lean times it is thus to be expected that workers pull in their belts a little.

Mr Meth's claims represent a fundamental challenge to this view. He found that the South African economy grew at a much higher rate during the 70s than official figures show and that most productivity figures based on the national accounting statistics are wrong. In his analysis, workers earned their wage increases and a good deal besides.

Seen together with the research findings of UCT economist, Mr Charles Simkins, that unemployment grew steadily from 11 percent to 21 percent during the 70s they paint a very different picture of what has been happening to the South African economy to the conventional version.

Of course, there is by no means unanimity over the findings, and Mr Meth's work has already come under fire from economists of differing persuasions. But the prospect of employers and trade unionists meeting across the bargaining table, each with their own figures backing up different claims on productivity, wages, inflation and so on, proves that economic statistics are not neces-

sarily hard and fast facts, and can be distorted to lend weight to opposing claims.

Problems

Yet spokesmen from the government and the private sector have continually spoken out against the country's low record of productivity and claimed that wage increases for workers have not been fully "earned". Their self-confidence has belied the fact that measuring productivity is a process fraught with problems.

It is not necessary here to go into the complex economic issues involved, or the pros and cons of Mr Meth's methodology. It is important, though, to note that as the mainly black trade unions grow in strength, basic economic issues, and their political implications, are likely to move increasingly to the fore.

In most Western countries elections are fought primarily over economic issues such as inflation, unemployment and social welfare. In South Africa, because the electorate is drawn from the most economically privileged section of society and because of the over-riding predominance of the race issue, economic policies tend to take a back seat.

Further the cause

And the public debate over economics has by and large been restricted to the "free marketeers", who represent one side of the spectrum.

Mr Meth's work was done in co-operation with the Federation of South African Trade Unions (Fosatu) and his conclusions can be said to further the cause of organized labour. But this makes him no more suspect than the large number of economists who are attached to banks or other big business corporations and who are constantly quoted in the business columns of the press.

The growth of black trade unions, whose constituency includes

those people for whom unemployment and poverty are burning issues, will not only broaden the debate, but deepen its political implications as well.

Mr Bobby Godsell, Anglo American's industrial relations consultant, pointed out in Stellenbosch on Tuesday night that black workers do already have a "vote" in one key area

of their lives.

On the shop floor they participate in "politics" through the collective bargaining process, which is the "habit and practice of compromise". And they have the power to go on strike and disrupt the normal functioning of society if they are dissatisfied.

Mr Godsell said that "perhaps the patterns of

interaction, compromise and partnership which are developing on the shop floor can provide a model for co-operation in society at large". They could provide a different kind of model as well.

Far from being merely "shop floor" issues, the matters which will be brought to the negotiating tables this year are of central political importance affecting the lives of the majority of people in this country. They would be recognized as such in any democratic society.

to measure worker moods

By Sheryl Raine,
Pretoria Bureau

An industrial barometer capable of measuring black worker dissatisfaction and reducing the possibility of strikes has been developed and tested by Unisa's School of Business Leadership.

The scientifically validated barometer is one of the first home-grown opinion testers of its kind in South Africa and could have a significant impact in the field of labour relations, says one of the developers, Dr Erik Schmikl.

The advantage of the opinion tester is that it is possibly the only one of its

kind that can survey worker dissatisfaction across the full spectrum of employees, including illiterate, semi-literate or fully literate black and white workers.

It costs R6 500 and R14 000 to apply, depending on the size of the workforce surveyed, and could save a company thousands of rands in preventing strikes, or increasing productivity.

It can be applied repeatedly to measure improvements in the work environment.

Till now, most opinion surveys used to take the temperature of the country's industrial workforce have been imported from Europe or the United States.

The researchers who developed the barometer believed that a measuring technique which gave valid answers for literate whites might not produce valid answers for semi-literate or illiterate black workers.

They then spent four years of intensive research and about R20 000 developing a valid barometer.

While it does not claim to predict strikes, it does reveal worker attitudes and the source of worker discontent which could prompt them to act in certain ways.

Research in the PWV area has proved that the barometer is sensitive enough to reflect the effects on workers of different company employment policies.

The brainchild of Dr Schmikl and Mr Arthur MacWilliams-Smith, the barometer was developed with the assistance of Professor Martin Nasser and Mr Silas Tlhopane, also of the School of Business Leadership, and Mrs Pat van der Reis and her colleagues attached to the CSIR's National Institute for Transport and Road Research (NITRR).

Expertise gained in NITRR's surveys of black commuter dissatisfaction was put to good use in compiling a valid questionnaire for the industrial barometer.

A seminar to launch the barometer will be held by Unisa at the CSIR on May 9 and 10.

Full details of pilot projects will be discussed.

● See Page 8.

Veld Schools get a facelift after outcry

Education Reporter

The Transvaal's Veld School programme has undergone a complete facelift after pressure from politicians, teacher bodies, parents and pupils to change the contentious course content.

The new syllabus will come into effect this term. According to Mr Eddy Brown, president of the Transvaal Teachers' Association, the decision to review the veld school programme came about largely as a result of TTA representations to the Transvaal Education Department.

"We had serious misgivings about the content of the Veld School course, particularly the political nature of many of the lectures."

"As a result of negotiations with the TED over the past year, a commit-

tee was set up to review the syllabus, and the results look very good — on paper," said Mr Brown.

The syllabus is split into three subject topics: youth preparedness, outdoor education and low-risk adventure training.

Where it differs from the previous format is in the shift of emphasis.

Army personnel will no longer be used to lecture to the pupils, and more stress is to be placed on nature lore, geology, geography and astronomy.

The low-risk adventure training is designed to allow children to test their physical prowess — without having to do forced exercise.

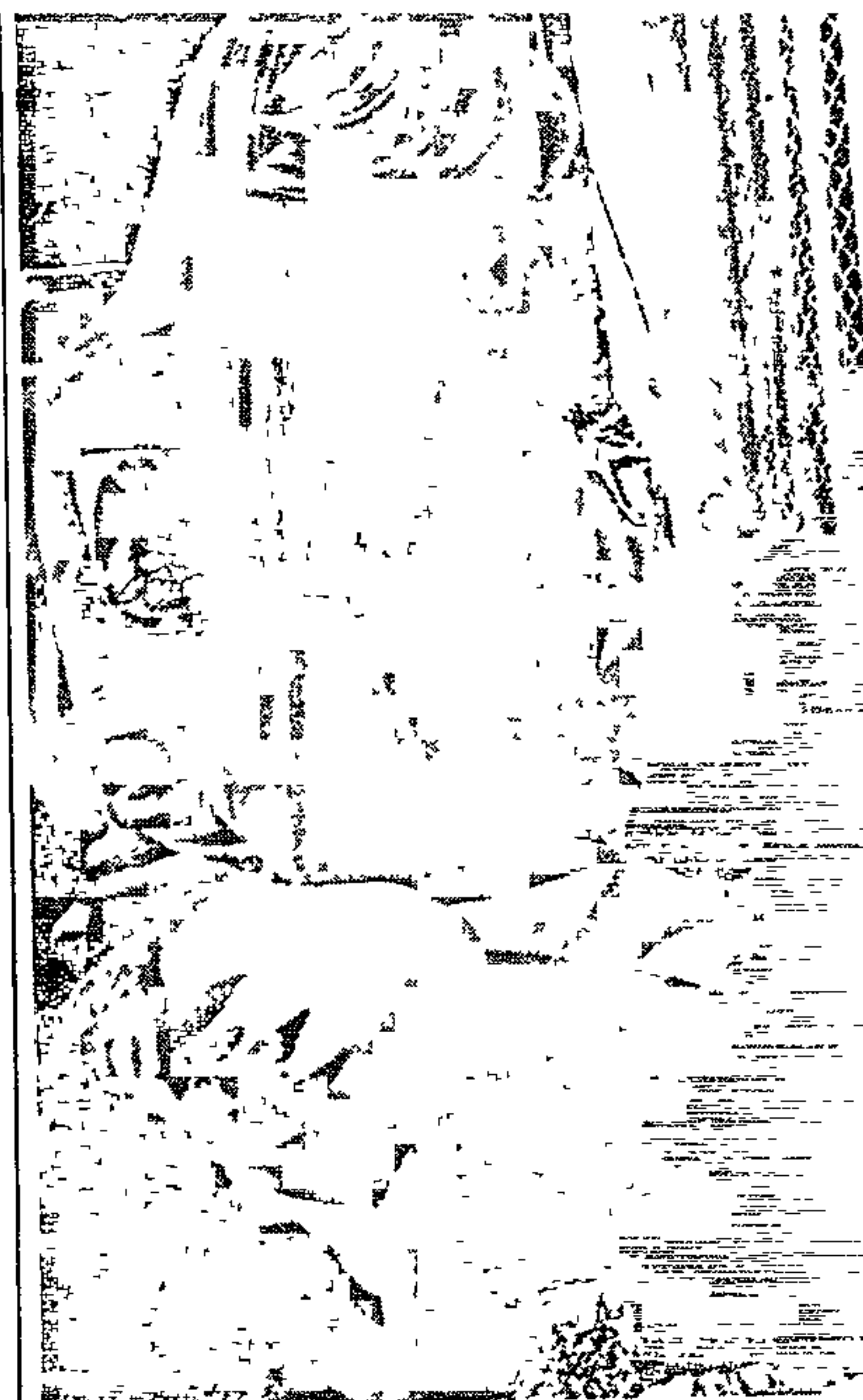
Previously there were numerous reports of exhaustion, minor injuries and broken limbs sustained by pupils who were forced to do strenuous obstacle courses.

Tvl Congress to meet

The chairman of the Soweto Committee of Ten, Dr Nthato Motlana, and Advocate Zac Yacoob, an executive member of the Natal Indian Congress, will be the guest speakers at the inaugural meeting of the Transvaal Indian Congress tomorrow.

More than 40 trade unions, community organisations and student bodies are expected to attend the meeting at Lenasia's Ramakrishna Hall at 2 30 pm.

Dr Essop Jassat, chairman of the Transvaal Anti-SAIC Committee, which is organising the meeting, said a revised constitution of the TIC would be presented for consideration and adoption at the meeting.



Polar bear keeper Delecia Morrison with Dooby at

By Jear Waite

For polar bears Dooby and Zahava iron bars a cage do make, but not for too much longer with the launch of the Johannesburg Zoo Polar Bear Trust — a fund-raising drive to build a vital new Polar bear enclosure.

The trust was launched at the zoo last night by the Mayor of Johannesburg, Mr Alan Gadd MPC, with the opening of an exhibition of paintings, drawings and sculptures by Johannesburg artist Roy Reynolds.

Fund zoo F

The artist has donated an original oil painting to launch the trust and agreed to contribute a third of the proceeds of the sale of the balance of the collection of animal paintings, as well as the total proceeds of the sale of the limited edition prints.

Zoo curator Mr W. Labuschagne estimated

Poet found shot dead in Pretoria

Poet and former journalist Mr Pieter Claasens (32) was found shot dead through the head in Pretoria on Thursday.

His body was discovered in his Sunnyside hotel room in Pretoria by a hotel employee. A firearm was found nearby.

Before becoming a writer, he had worked on the now defunct Johannesburg paper Die Transvaler and for Oggendblad in Pretoria. His first volume of poetry, "Verse vir 'n Windswaai", was nominated for the Louis Luyt literary award two years ago. A second volume is expected to be published soon. Mr Claasens held a Potchefstroom sociology honours degree.

He leaves his mother.
Police do not suspect a crime.

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Low productivity 'main reason for SA inflation'

A POLICY of large-scale unemployment in order to force down the high rate of inflation of South Africa to less than 10% would not be easily accepted, according to Mr Piet Liebenberg, executive chairman of merchant bankers Finansbank.

In the company's annual report, Mr Liebenberg says "On the contrary, both the public and private sectors are committed to creating as many employment opportunities as possible.

"The result is that the skilled work force, mainly whites, can put a premium on their services due to the scarcity factor. The unskilled, mostly blacks, are paid a premium for their services due to socio-political considerations.

"In other words, the productivity of the country's labour force in the private and public sectors in comparison

to their remuneration leaves a lot to be desired."

Mr Liebenberg says this low productivity of the South African worker is possibly the largest single contributing factor to the country's high rate of inflation.

"The other important factor affecting inflation is the part played by the monetary authorities, especially with regard to the control of the money supply.

"In considering this aspect it is necessary to point out that the South African economy has certain unique characteristics which have made it exceptionally difficult to foresee the trend in the money supply and thus to control it effectively."

Some of these were

● External aspects such as the sharply fluctuating gold price and the material changes (for South Africa) in the economies of the coun-

try's trading partners,

● The recent abolishment of exchange control over foreign investors, and

● Internal factors such as the unpredictable climatic conditions and the complex nature and extent of the local demands made on the Treasury.

Despite differing backgrounds, certain industrial countries had basically two things in common, namely diligence, or productivity, and discipline. From time to time critics remarked that these virtues were showing signs of strain.

This was possible but it was, however, noticeable that as soon as indications of an economic downswing or some other crisis appeared these virtues reappeared.

"If we are unable to improve our approach to work and the accompanying discipline — in other words to increase productivity — we will not succeed in substantially reducing the rate of inflation," Mr Liebenberg said — Sapa

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Mr Laurie Jordaan has been appointed retail liaison coordinator of Spar Reef

JSE gilt probe date

THE president of the Johannesburg Stock Exchange, Mr Paul Ferguson, says the JSE committee's report into recent irregularities in the gilt market should be ready about the middle of August. A statement summarising the results of the findings will be published, but the report itself will not be made public.

Suicide if wage rises don't lift productivity—Edwardes

By BRENDAN RYAN

BRIDGING the wage gap by paying black workers more without the delivery of increased productivity is suicide for the company and worker alike, according to Sir Michael Edwardes

He said at the opening of Sapco's headquarters in Kempton Park yesterday that pay increases without greater productivity fuelled inflation which led to unemployment.

Trade-union membership in South Africa was growing rapidly at a time when union membership in countries like the UK had dropped substantially, partly because of disillusionment, but mostly because of increasing unemployment.

"This is a growing power that, if used sensibly, could achieve enormous benefits for South Africa's millions of black workers by accelerating the pace of change without destroying the industries which generate the wealth.

"But if union leaders or shop floor stewards use their power irresponsibly, they could cause incalculable damage to this country's economy and slow down, perhaps even reverse, the bene-

fits brought about by a prospering economy by pricing their members out of jobs, making industry less competitive and frightening people in authority into taking steps to slow the evolutionary process.

"I very much hope that reason will prevail and that restrained and sensible use of increasing black union power will gradually lead towards higher productivity and greater prosperity for all within the framework of a more enlightened political dispensation."

Sir Michael said that in the UK and other developed countries the trade-union movement, historically the protector of the weak and the underprivileged, had become one of the most powerful institutions in society.

"The best-laid plans of farsighted entrepreneurs, the investment of huge sums in the most modern equipment count for nothing when unions use their power irresponsibly to entrench over-manning and restrictive practices, and generally delay progress even if they do not always resort to the nuclear weapon of the industrial age, the all-out strike."

"Our experience at British Leyland was that the average trade unionist is an eminently sensible person who is

ready, willing and able to put in a full day's work in return for a fair wage which guarantees him a gradually increasing standard of living for his family.

"The leaders of major trade unions are also nearly always practical people who realise that no business — whether it is a family owned company employing perhaps 50 people, a multinational enterprise or a vast State-owned corporation — can operate in an ideological or political vacuum, but must pay its way in the real world peopled with consumers who must be able to afford the end product of the workers' labour."

A minority of extremists could cost a company or even a nation millions in lost production and foreign currency.

"They do to businesses what droughts do to farmers," he said.

"All too often, politically inspired militants are prepared to deliberately sacrifice the interests of their fellow trade-union members in the hope of making what they think is a contribution to the restructuring of society in their own image.

"To this end, they deliberately encourage strikes — often in defiance of the leaders of their own unions — which cost companies huge sums in lost production and eventually lead to fewer jobs, lower income standards and reduced expectations for the vast majority of their fellow workers."



Mr E J Sweet has been pointed assistant manager of Bowring Barclay & Associates (Transvaal Central) (Pty)

Reserves up

TOKYO — Japan's foreign currency and gold reserves at the end of July totalled \$24 939-million, an increase of \$157-million from June, says the Ministry of Finance. Gold holdings accounted for \$914-million — UP.

DIAZO & VESICULAR MICROFIL

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Lion Match cuts payout

Financial Reporter

LION Match suffered a 26,8% downturn in bottom-line profit in the half-year to May.

The result was R2 510 000 compared with R3 430 000 in the six months to March 1982. Earnings a share fell from 39,1c to 28,6c.

A company statement says that although profits were hit by both the recession and the drought, the results are not comparable because of a change in Lion's financial year-end.

The comparative period includes the more buoyant pre-Christmas trading months.

The interim dividend has

Income from associates totalled R210 000 (R80 000) and net interest income R37 000 (R64 000).

Tax took R2 200 000 (R2 570 000).

The statement says "SA match sales were maintained at much the same levels as in 1982, but profit was lower due to inflationary pressures on production costs and the effect of exchange rates on costs of imported materials."

Export sales fell sharply because higher production costs and weaker foreign currencies reduced SA industry's competitive position.

The Interpak group felt the impact of the recession midway through the period when volume sales slumped and

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247 NATIONAL/INTERNATIONAL

Botswana: Do not aggravate unemployment

Argus Correspondent
PRETORIA — The Prime Minister, Mr P W Botha, has made an urgent appeal to employers and employees' organisations "not to aggravate the unemployment problem."

At the National Productivity Awards ceremony in Johannesburg last night, Mr Botha said the creation of sufficient job opportunities was not the responsibility of the Government alone.

"The private sector and, more particularly, employers and employees, must also play their part," he said "For this reason I wish to make an urgent appeal to employers and employees' organisations to exercise great caution so as not to aggravate the unemployment problem."

Mr Botha said he believed the effects of mechanisation should enjoy particular consideration at present.

"An excessively high rate of mechanisation in individual establishments can result in less employ-

ment." This could occur particularly with unskilled and semi-skilled labour and would not necessarily contribute towards productivity improvement.

"This is not something we can afford," he said.

Inflation

South Africa's high rate of inflation compared with other Western countries was undermining its competitive ability in international markets, said Mr Botha.

"This is not conducive to economic growth and development and the creation of more employment opportunities."

Mr Botha warned that South Africa could not continue to deprive herself of an important instrument at her disposal, namely productivity.

"It is unhealthy, for instance, that labour productivity in the manufacturing sector last year went down by two per cent, while earnings per worker rose by approximately 20 per cent."

Shortage of skills hits productivity

ARGUS
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Argus Correspondent

JOHANNESBURG — South Africa is building up a shortage of 23 000 skilled workers a year, Mr John Maree, an executive director of Barlow Rand and former chief executive of Armscor, warns

He said here the country needed 35 000 skilled workers and technicians a year, but was training only 12 000

"This shortage of skills and the utilisation of people who are not adequately trained or developed to do the jobs at hand is clearly affecting productivity"

THREE REASONS

He listed three reasons for South Africa's low productivity

- Wage increases were given without a corresponding rise in productivity
- The shortage of skills resulted in people being paid premium salaries, again without a commensurate improvement in productivity
- People were promoted into positions for which they were less qualified than their counterparts in Europe, which also had a negative effect on productivity

This was likely to continue for the foreseeable future. Since low produc-

tivity had a direct influence on inflation, the inflation rate would probably continue at about its present level

"I don't believe that the Government will ever really clamp down on inflation if it means large black unemployment over a long period of time

"Fighting inflation by deflation, resulting in bad economic conditions and unemployment, is like fighting a war by trying to draft people into a kamikaze corps — people are not very keen to join"

South Africa would have to make a great effort to incorporate blacks into management teams as lack of management skills was one of the greatest impediments to the country's continued growth

"I believe that in any event we will have to find new management techniques to tap the skills, experience and capabilities which exist in the management teams at our disposal

"One has to develop new management styles which will encourage the participation of senior, middle and lower management in the solution of problems"

South African managements tended to decide at the top and pass the decision down

● Tribune investigation highlights malpractices as stayaway fakers cost companies thousands of rands in lost man hours

Sick notes: Unethical doctors come under fire

By BARNEY MTHOMBOTHI

PEOPLE who stay away from work faking illness are costing companies thousands of rands in lost man hours.

And they are doing it legally because they have doctor's certificates

Managements this week blamed doctors who issue sick notes or medical certificates to workers who approach them with the flimsiest of reasons in order to take days off from work

The cost to companies is difficult to assess but it is estimated thousands of man hours are lost because by law an employer cannot turn down an employee's request for sick leave on production of a medical certificate

A Durban company has resorted to keeping a list of doctors who it suspects are engaged in such malpractices and one doctor has been reported to the Medical and Dental Council

A Sunday Tribune investigation has shown that it is easy to get sick notes from some doctors at the mere mention of a mild headache and, in one instance, a Tribune reporter was given a sick note by a doctor though he made it clear he was not sick but only needed the note because he was away from work for five days and feared being dismissed

Personnel managers said this week they were aware the system was being abused but they had no way of proving, or stopping it

A senior executive of a supermarket chain said this was a problem his company was facing nationally "I'm not saying all doctors are doing it. Some doctors don't even examine a patient but simply give him a week off," he said

"It would be very helpful if they would be more conscientious about it"

Mr Norman Swanepoel, personnel manager of a large soap and detergent conglomerate, said he be-

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"It would be very helpful if they would be more conscientious about it"

Mr Norman Swanepoel, personnel manager of a large soap and detergent conglomerate, said he believed the abuse happened all the time

"It's a problem and there's nothing much we can do about it. You can't go to a doctor and tell him he's wrong"

Mr Roy Davies of Checkers, said "All you see is the tip of the iceberg. We have grave suspicions about these sick notes but we can't prove it"

"If you go to a doctor as say 'look, I just can't believe this,' he is not going to like it. People suddenly become sick a day before a long weekend or after a public holiday. We just have to accept it if he produces a sick note from a doctor"

Mr Ken Hobson, general manager of the Durban Chamber of Commerce, said the Chamber was aware "a certain amount of abuse" was taking place but could not say how much it was costing members as this had not been investigated

The Sunday Tribune investigation follows a complaint from a personnel officer who said some of the medical certificates received by his company from employees were false

"It amazes me that a doctor is able to issue a certificate to a person he has not treated. In other words the person is "sick" from Monday to Wednesday without seeing a doctor, but then goes to the doctor on Thursday and gets a certificate covering him from the Monday"

I approached several Durban doctors, including those mentioned by the personnel officer, in each case making it clear I was not sick

Many doctors said they could only issue a sick note if a patient told them he was not well

But one doctor gave it to me after examining me although I told him I was not sick. I told him I had been away from work for five days and wanted the note to prevent being fired. He gave it to me and charged R25

The doctor first handed me a notice which says sick leave was taken only by people who were sick and under medical treatment

"If you go to the farms or elsewhere, and you're found out, you are maybe charged, fired, or lose your wages," it said

The doctor asked whether I had notified my employer that I was sick and I said no. He wrote my name on a bundle of old calendar papers clipped together. The bundle had a lot of other names on it, apparently of people who had seen him about the same problem

"I'll give it to you but it will cost you a lot of money," he said

The doctor examined me. He wanted to give me an injection but I refused

He gave me two sick notes, one backdated five days. This was the card to inform my employer that *"this patient was here today and was unfit for duty for approximately one week"*

"A detailed note will be given on discharge," the note said

The second note said I had been ill with influenzal complications

"Attended here 22/8/83, 24/8/83, discharged 26/8/83."

He made me recite after him the nature of my "illness". He also gave me an attendance card to show he had seen me three times that week and some tablets

Another doctor gave me a sick note only after I said I had had a mild headache. He said in the note he had been "informed" I had not been well

I paid R7,50 for it

A spokesman for the Medical Association (Masa) said the association considered such malpractices in a very serious light and severe steps would be taken against any doctors found guilty

'Look before you leap' warning to PE industry

247 E. Post 18/10/83

By LOUIS BECKERLING
Business Editor

"QUALITY CIRCLES," introduced to monitor and improve production techniques, assumed "the worker knows more about how to perform his job than anyone else", Port Elizabeth industrialists heard today

However, flaws might arise from an over-zealous application of this principle, warned Dr Peter Berry

Dr Berry, a professional consultant, was among those addressing a morning seminar presented by the Midland Chamber of Industries on human resources management

It was vital to determine first whether a company was ready for the introduction of a "Quality Circle" programme — which brought together workers and management staff in strategically located "groups" each equipped to identify and solve its own problems

The company's readiness, said Dr Berry, was a function of a number of variables

● Union attitudes

The concept was not popular among some trade unionists, pointed out Dr

Berry, and at a recent meeting drawbacks such as erosion of union power, job loss, and contract circumventions were mentioned

"With such resistance to Quality Circles among certain trade union leaders it becomes extremely important for managers to measure the potential acceptance — or resistance to — QCs at the worker level," said Dr Berry

And since managers could not depend upon support from the trade union officialdom to "sell" a programme, they should be equipped to present Quality Circles "in such a way as to gain rank and file support

"If current conditions exhibit distrust, poor communications and an adversarial relationship, the relationship itself will have to be improved before management can hope to gain support for a Quality Circles programme"

● Managerial expertise

It had been asserted that one of the most costly mistakes of industrial management was confusion between managers' and workers' responsibility for production and quality problems, said Dr Berry

Researcher Mr Edwards Deming had shown that

workers had control over just 15% of the causes of production and quality problems, while the balance was under the control of management

"Essentially management must be capable of addressing and correcting the lion's share of causes of production and quality problems if any real progress is to be made in improving the company's productivity"

● Supervisors' skills

Since Circle leaders were generally appointed from the ranks of supervisors, it was important to test such employees' leadership skills

"Many sources note that first-line supervisors often feel threatened by Quality Circles and other attempts to give subordinates greater freedom in determining how work is to be performed

"Taking action to assess supervisors' needs and to provide development opportunities will demonstrate a recognition of their importance to the company and can help reduce any perceived threat from a future QC programme"

● Workers' skills.

"At the heart of the QC philosophy is the assumption

that the worker knows more about how to perform his or her job than anyone else"

Nonetheless over-zealous application could lead to a separation of responsibility from knowledge, said Dr Berry, and such an assumption may not only be false, but could lead "giving the responsibility for problem identification, decision analysis and other tasks to hourly-paid employees"

● Organisational climate

An attitude survey which indicated a distrust of management among workers might suggest that a QC programme could be interpreted as a scheme to take advantage of the work force, said Dr Berry

"If employee expectations and experience are based on a tradition of authoritarian leadership styles among managers and supervisors, the participative nature of Quality Circles will be inconsistent and possibly very confusing to workers"

It was important in this regard to distinguish between a company's willingness to support a QC programme, and its readiness to adopt such a programme, said Dr Berry

Housing vital to help productivity

JOHANNESBURG — ~~122~~ ²⁴⁷ country without adequate housing facilities could not depend on maximum production from its workers and without maximum production South Africa could never, from an industrial point of view, be competitive on world markets, according to the assistant general manager of Saambou National Building Society

~~E. Post~~ ^{18/10/83} Mr J. E. Bekker was speaking on *The Role of Building Societies in the Future* at the South African Institute for Housing conference in Bloemfontein

He said in future building societies would have to find new sources of cash flow to supplement their present resources

Building societies could be expected to become

more bank-orientated as they moved into more profit-producing areas

Housing was, next to food, the most essential requirement of every individual, according to Mr Bekker

Economic and political development had made the present system of home financing inadequate and a new policy would have to be formulated to meet the

new demands. The measure in which these demands were met would determine economic and political stability

Building societies had the responsibility of complementing the efforts of employers by providing finance for housing projects

Increasing attention would have to be given to lower-income housing by building societies — Sapa

24 PM 4/11/85

MEDIA COUNCIL

The SA Media Council came into operation this week

It is to be an independent, voluntary organisation comprising 30 members — a chairman, deputy chairman, 14 public representatives and 14 media representatives

The main aims of the council will be to maintain media freedom, to resolve issues arising from alleged contraventions of the code of conduct by the media, and to investigate matters of public importance concerning the conduct and repute of the media

The council can impose penalties on members of the Newspaper Press Union and other media consenting to its jurisdiction. Penalties range from a reprimand to a fine of up to R10 000, and the council can order the publication of suitable corrections

People wanting to get in touch with the council should write to The Registrar, SA Media Council, P O Box 5222, Cape Town, 8000. The council's telephone numbers are 021 46 7317 and 46 7352, and its telex number is 57 22908

Expert urges stress on productivity

19/4/83 247 484 E. Post

A FOCUS on improved productivity had ensured that in the United States, clothing manufacture was the most profitable branch of the industry, a visiting US expert told Port Elizabeth clothing manufacturers this week.

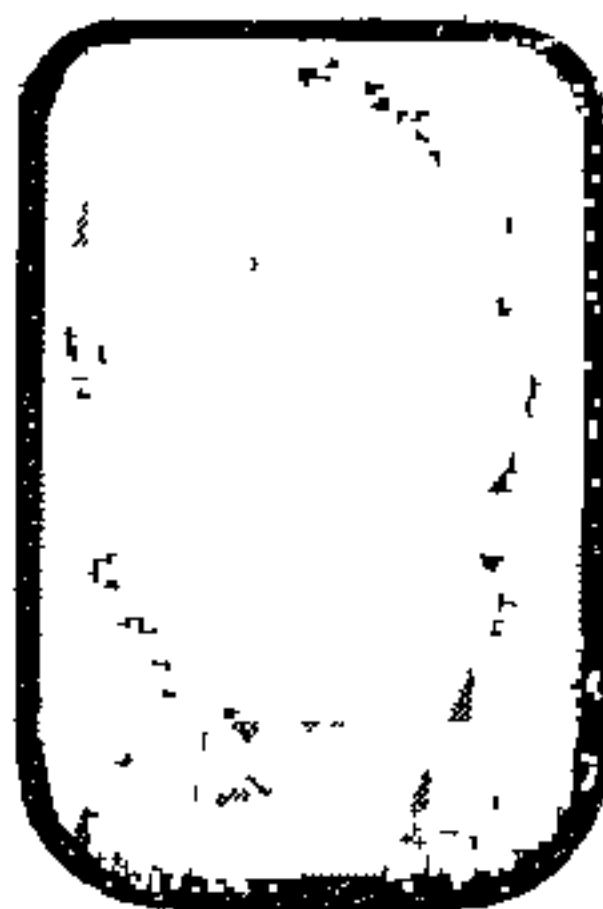
And notwithstanding the limitations to the local market and the time-lag which distinguished the experience of the South African manufacturer from that of his counterpart in the US, similar productivity gains were available to the SA entrepreneur willing to take the necessary risks

This was the central message conveyed to Port Elizabeth's substantial clothing manufacturing industry by Mr Jack Ullman, consultant with the New York firm of Kurt Salmon Associates, and specialist in the apparel industry

Addressing delegates to the Eastern Province Clothing Manufacturers Association annual meeting, Mr Ullman said total factor productivity in the United States for the period 1973-'79 revealed that among chemical fibre processors productivity had improved annually by 1,1%

By contrast textile producers had improved their productivity by 3,7% and apparel manufacturers by 3,8%

For the retail market generally productivity had risen over this period by 0,59% and for the United States economy as a whole by 0,4%



By Louis Beckerling
Business Editor

"This led to price increases in the clothing industry being well below the inflation rate, which made the apparel industry the most profitable of all — not on a percentage of sales, but on such measures as return on assets"

The level of productivity in the South African clothing manufacturing industry was "the same as that of the Caribbean countries", according to Mr Ullman — about half the levels achieved in the US

"South African accordingly has remarkable opportunities despite the inflation gap, because you can bring down this gap in productivity between yourselves and the United States — which currently imports about 25% of its domestic consumption of clothing, and will probably stabilise at about 45%," said Mr Ullman

The historical development of the US clothing industry, said Mr Ullman, had revealed three distinct phases

Emphasis in the '50s and '60s, he said, fell on competitiveness between manufacturers South Africa was still largely in this phase

As competitive advantage began to mean less management emphasis switched to marketing, alternative sourcing of raw materials, and asset controls ('70s and '80s)

"Now the emphasis has once again swung to total productivity, and indicators of the shift may be found in such issues as

- A return on capital which averaged 30% in the clothing industry

- Substantially increased market research expenditure

- A restructuring of the sales force

- Greater controls over work in progress and inventories

The key to making the necessary productivity gains in South Africa lay in increased capital investment in research and development and in technology, said Mr Ullman, and this was feasible behind the protective tariff barrier which existed in the country

Entrepreneurs not willing to make such investments for fear that the barriers may suddenly be removed would pay the

price for not taking the necessary risks that they should be taking as entrepreneurs

Presenting a productivity check-list, Mr Ullman defined a number of concepts and the suggested targets for US clothing manufacturers

Price recovery:

The average price change, minus the change in (weighted) average cost of labour, capital, energy, raw materials, supplies and services Target -2% a year

Retail sell-through.

The percentage of products sold "at first price" currently estimated at between 50% and 60% This provides a measure of marketing/sales productivity — target should be 85%

Sales force:

Sales representatives in the US "probably perform at about 60%" of a standard based upon true potentials for penetration, total volume, new account openings and performance levels

Given properly set standards, training and incentives performance "should be at 90% of standard within three years"

Inventory turns:

A mediocre industry-wide average estimated at 2,8 turns, could improve some 25% to 3,5 turns

Bricklaying under the cost-saving microscope

Property Reporter

IN AN attempt to improve bricklaying productivity by controlling costs, the National Productivity Institute has produced standard measures which enable homebuilders to calculate the point at which bricklaying becomes too expensive

The NPI produced the measures at the behest of the National Association of Home Builders, which had become concerned at the rising cost of building and the effects of inflation

The NAHB pointed to the trend in the sizes of houses, which have in the last two years declined by almost 12% in area, from an average 100m²-110m² to 90m²-95m².

Bricklaying, which accounts for 20% of the total cost of the average home and is the largest single prime cost factor, was chosen for the first activity for in-depth investigation

The measures — for use by contractors to calculate the amounts of bricks, bricklayer-hours and assistant-hours as a cost item — were worked out following field studies by an NAHB-NPI steering committee

The first of two formulae, based on the construction of 20

houses, allows builders to calculate total brick quantities based on linear measurement of drawings

The second formula allows calculations to be made on the estimated average times involved with bricklaying. It was based on work at five building sites and will give readily applicable standard times and more simplified control

Levels of productivity can be measured against the standards and contractors can immediately make adjustments instead of being compelled to recover costs by increasing prices

To explain the formulae, the NPI is to hold four seminars countrywide next March in conjunction with the NAHB

NPI project manager Mr Jeremy Eccles said the calculations, which could be programmed into a calculator, took 20 minutes, compared to the two or three hours required by a quantity surveyor's traditional methods

He pointed out that several caveats must be taken into account if the right answers were to be reached. For example, the formulae would not work if the house contained massive picture windows

By Amrit Manga
PRODUCTIVITY must occupy a central place in wage determination or South Africa will remain trapped in an inflationary spiral.

The warning comes from Dr Jan Visser, executive director of the National Productivity Institute (NPI) at a time when labour relations are being strained by growing wage demands.

Illustrating the importance of labour's influence on productivity, Dr Visser points out that workers control machines, raw materials and energy, and can influence the proper use of these resources.

"Despite the importance of productivity on the country's competitiveness in international markets and its inflation rate, little has been done to make it an integral part of any negotiating process," says Dr Visser.

"Negotiations largely centre on finding the lowest figure acceptable to workers without any attempt at determining what is due or justified," he claims.

"Wage increases that are not supported by productivity increases tend to be inflationary.

"While labour productivity decreased by 2% in 1976, real

Output linked with wages

earnings a worker increased by 18%."

The trend was repeated last year and increases in real earnings a worker remain higher than labour-productivity improvements for this year.

Labour productivity in the manufacturing sector in South Africa for the period 1977 to 1981 increased by 5,6%, while wages a worker increased by 15,88%, according to the NPI.

The figures for Japan during the corresponding period showed a labour-productivity increase of 7,12%, while wages increased by 3,39%. Germany showed wage increases of 5,88% and labour productivity grew 1,97%.

Trade unions have expressed reservations about the feasibility of linking wages to labour productivity, saying that the subjective bias of employers towards selected workers renders it impracticable.

But the Johannesburg Chamber of Commerce labour Adviser, André Malherbe, says the problem can be overcome through the use of a mutually acceptable productivity measurement tool.

"Linking productivity to wage bargaining while neglecting inflation could work backwards for wages," he cautions.

Unions maintain that low productivity, which can slow down the rate of increase in wages, cannot be blamed entirely on the workers.

"It is a well-known fact that the shortage of middle management, particularly in South Africa, is largely responsible for under-utilisation of available labour, hence low labour productivity," says Dr Anna Scheepers, president of the Garment Workers Union.

While in agreement with the concept of productivity-linked wage bargaining, Dr Scheepers points out that the lack of adequate training and education must of necessity be linked to low productivity.

Low productivity rate is making SA less competitive

247

Staw

17/12/83

By Stan Kennedy

South Africa's labour productivity, as measured by the real GDP per worker in the non-agricultural sectors, declined by 2,0 percent in the first half of this year, after a 0,7 percent drop in 1982

Mr Stephanus Loubser, director of marketing at the National Productivity Institute, says this was the result of a 3,2 percent decline in output and 1,2 percent in employment.

Salary and wage rates increased at a high rate and, together with the negative productivity performances, contributed significantly to the high inflation rate

For example, while labour productivity in manufacturing declined by 4,7 percent in the first half of 1983, compared to the same period last year, salary and wages increased by 15,2 percent in nominal terms

But more serious is the slow productivity growth, says Mr Loubser

From 1972 to 1981, the GDP per capita was 0,6 percent a year, compared to 1,8 percent a year in Australia

With a 12 percent inflation

rate in 1983, South Africa is getting further behind its trading partners and its competitors in international markets

The continued prosperity of South Africa and all its peoples depends largely on the country's ability to improve its unacceptably low levels of productivity

"Our high inflation rate and low levels of productivity, compared to low inflation rates and higher productivity levels in other countries, pose serious problems for the South African economy

"High unemployment is one of the results of an economy that is not growing fast enough," he says

For too long has the country relied on gold to lead the way to economic growth

More and more people, from Government and business, have come to realise that unless gold's role in the economy is supported with a strong industrial base, South Africa will face serious long-term problems on all fronts

Improving productivity levels has become of crucial importance on a national level.

"Improving productivity means improving profitability, either by reducing costs, in-

creasing revenue or a combination of both," says Mr Loubser

"Transvaal municipalities, which have worked closely with NPI's municipal productivity unit over the past two years, estimate they have saved R4,8 million during this period through productivity improvements. Just by introducing the concept of productivity circles, one municipality saved R106 000 in one year"

He says the business cycle has an important effect on productivity. During the upward phase, production is increased until maximum capacity use is reached. This better use of fixed resources leads to increased productivity.

"It follows that productivity growth is unfavourably affected during economic downturn periods.

"The general opinion of economists for the year ahead is that the economy will start its upturn, leading to an improvement in our productivity levels

"But this will be shortlived unless we tackle our real productivity problems of the lack of productivity awareness and the shortage of skilled manpower," Mr Loubser says

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Fruit picking study

Cape Business News 1/84

THE R364 million apple and pear picking industry has come under the scrutiny of the National Productivity Institute. The NPI's recently concluded survey showed that the best pickers were five times more efficient than the worst. Better picking teams were 100% more productive than the worst. In the packhouses the packing rate also varied as much as 100% from best to worst. Productivity varied even more and was often related to the size of the packhouse.

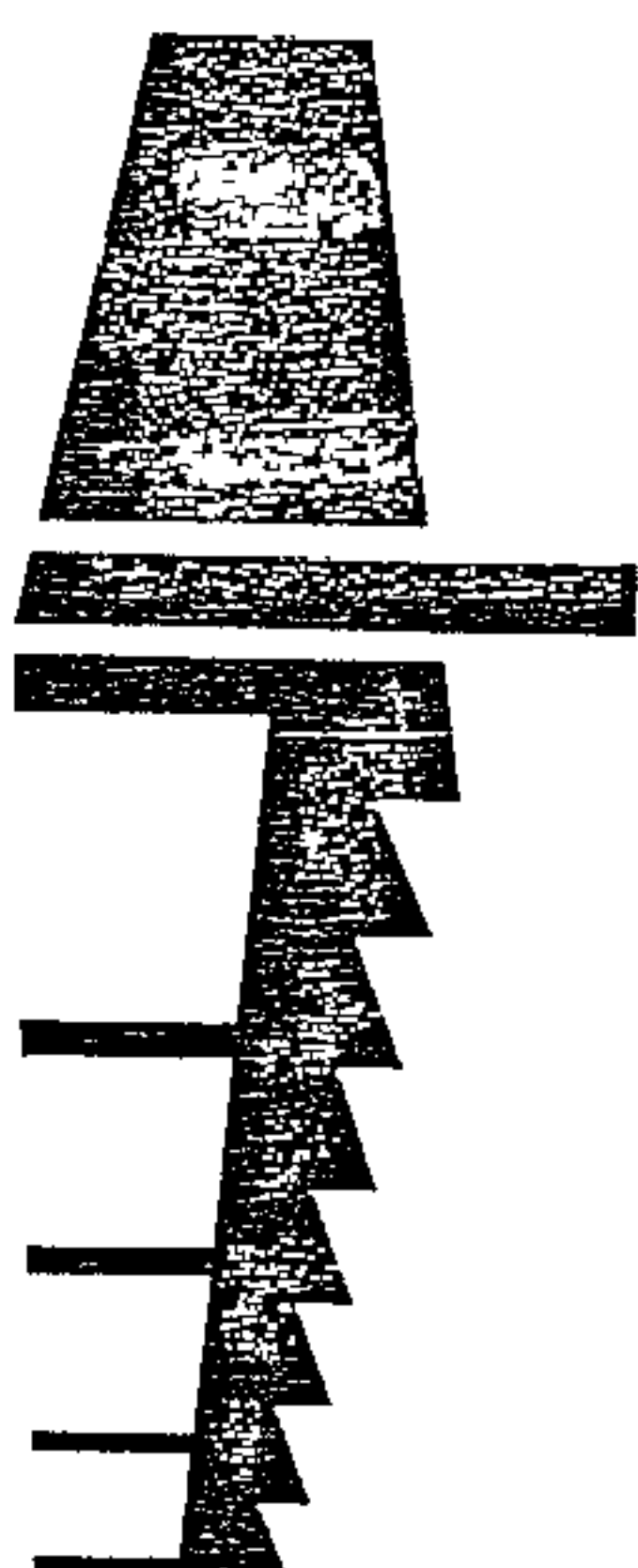
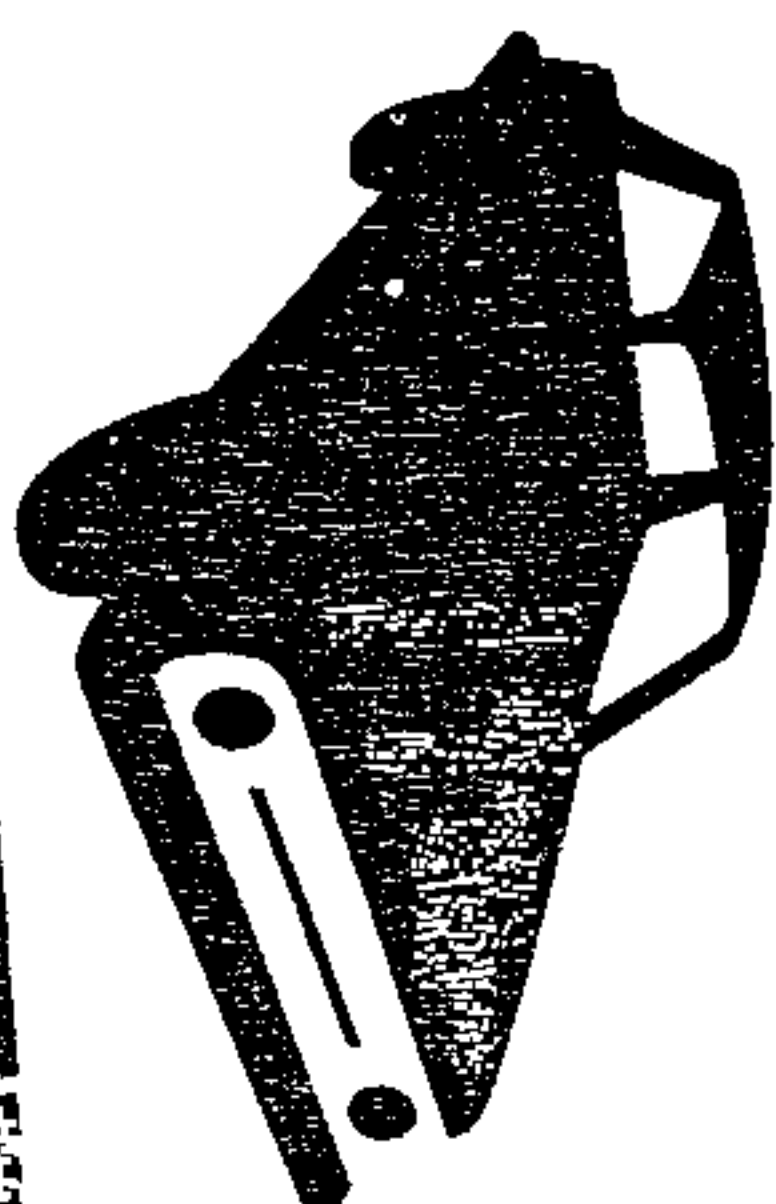
ing and packing industry the world over. It still comes down to how fast, how many and how efficiently labour can get it off the tree and into the box.

A seminar on the NPI study has been arranged at Stellenbosch on January 26. Technological developments have had little impact on the fruit pick-

Frost Cape Town as their architectural representative.

farmer for the most economical production, BKB launched a survey to eliminate production

marketing of livestock is unsatisfactory and BKB is striving for an improvement



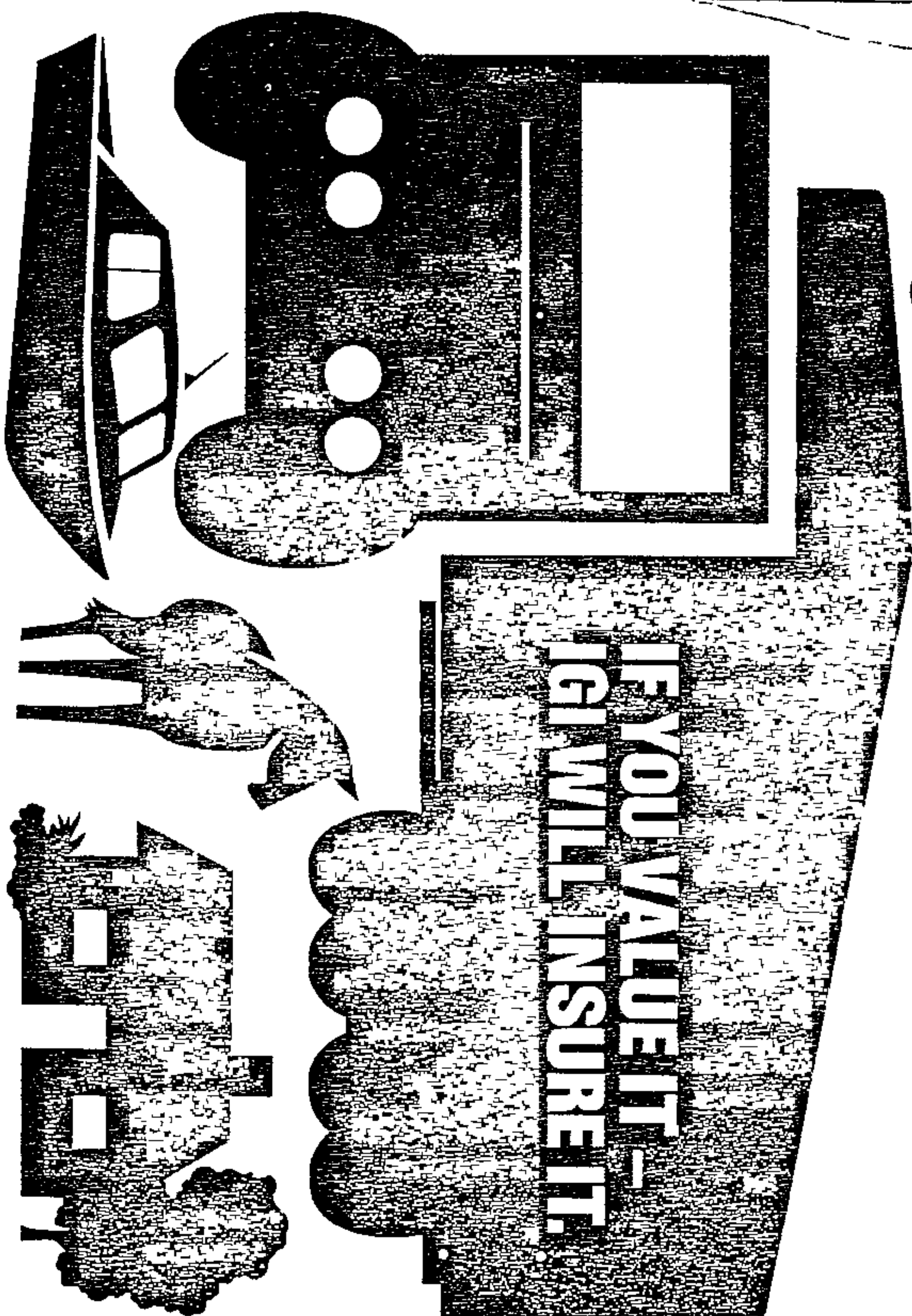
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Productivity increase in SA is too low

Productivity improvement played only a very minor role in South Africa's economic growth from 1970 to 1982, the National Productivity Institute says in its annual report for 1983.

The report has been released in Pretoria today.

It indicates that only during those 12 years — when the economy was at its peak — did the productivity growth rates of capital and labour combined improve the average annual economic growth rate.

During that period the average contribution towards economic growth was only 1,9 percent — “not even one-third,” it says.

“In many of South Africa's major trading partners, productivity improvement is responsible for as much as 60 percent of the economic growth rates.

“As a result, the economies of these countries are continuously becoming more efficient and more competitive, compared to the South African economy, where productivity plays a small or even negative role in its growth performance.”

INFLATION RATE

The National Productivity Institute says “It is, therefore, small wonder that South Africa is, even at this stage of the business cycle, struggling with an inflation rate more than double that of its major trading partners.”

The report says economic growth stems from two sources — the consumption of more resources and increased productivity.

When growth is not backed by increased productivity, “more and more scarce resources are used up” — Sapa

CAPE TIMES 4/2/84

Clothing industry facing serious problems

247

By Audrey d'Angelo

THE clothing industry — a major employer in the Western Cape — is facing serious problems as a result of low productivity combined with higher wages, says Mr Hugh Brown, managing director of Integrated Productivity Systems (Pty).

His firm has invited chief executives of local clothing firms to a working breakfast at a city hotel this month at which he will explain how cost savings can be made and efficiency improved

He will suggest that this should be made "Productivity Year" for the clothing industry, in which an all-out effort will be made to improve the situation

The main speaker at the breakfast will be Mr Christo Wiese, chairman of Pepkor

World markets

He pointed out that there were companies in Cape Town which had shown they could compete in world markets

But figures released by the National Productivity Institute in its annual report for 1983 showed that productivity had fallen since 1966 while wages had increased in real terms by about 22 per cent over the same period

"The turnover in labour in the clothing industry in the Western Cape is something like 69 percent a year

"This is a horrendous figure and we shall never have high productivity as long as we accept that situation. Absenteeism is also high"

Managers told to enlist workers in planning productivity rise

247 Star 13/3/84

By Bill Levitt

Managers must abandon the traditional "carrot and stick" approach for one encouraging worker participation at senior levels through Quality Circles, a top Iscor official has said.

"So much brain power on shop floors remains untapped and workers are crying out for recognition," said Mr John Riddell, Iscor's general manager of steel operations. "They want to become involved."

He was among businessmen and academics who attended the inaugural meeting of the National Association of Productivity and Quality Circles at the Escom plant in Sandton.

The benefits of the Quality Circle programme include improved productivity, morale and huge savings. Iscor saved R3 million in three months with the Quality Circle approach at

its Vanderbijl Park operation.

But Mr Riddell and Professor Grant Schutte, director of the Unisa School of Business Leadership, emphasised Quality Circles are no substitute for good management.

Professor Schutte said "Problems cannot be solved if bosses are reluctant to listen to shop-floor solutions."

The association is getting off the ground when SA productivity is declining rapidly.

Dr C F Scheepers, deputy director-general of the Department of Manpower, warned managers last week to keep open their lines of communication with workers because declining productivity and average wage increases of 12 to 16 percent could fuel inflation.

There are 50 organisations using Quality Circles — involving roughly 10 000 workers —

expected to increase.

Participating companies include Anglo American Life, Iscor, Escom, the Council for Scientific and Industry Research and the National Productivity Centre.

The idea took shape in the US just after World War 2 and was put into practice by the Japanese.

Several participants at the meeting noted that South Africa was fertile for this system because blacks, like the Japanese, are group-oriented.

The Japanese estimate a return of R80 for every rand invested, including time given to workers for meetings and training courses for group leaders.

US companies estimate a return of R6 for every rand invested and South Africans can expect a two-to-one ratio until the system takes hold.

Union distrust is major obstacle

Productivity bargaining tends to be conspicuous by its absence from most industrial relations agendas.

Employers who want to make it a quid pro quo may find it takes several years to overcome ingrained union distrust, says visiting British IR consultant Mr Gerald Atkinson.

In every country where trade unionism has emerged it has taken years and even decades to begin to break down the "them and us" syndrome, he says.

South Africa, where race often overlies conventional causes of employer-union suspicions, will be no different.

The one advantage South African bargainers have over their overseas predecessors is that research and experience have demonstrated some of the methods which can overcome distrust sooner.

But as long as basic suspicions exist, productivity agreements are worth little more than window-dressing. "Your agreement can be leather-bound and gold-foiled," says Mr Atkinson, "but if the blokes on the shop-floor think they work for a rotten organisation they will louse up the agreement."

TWO CONDITIONS

Mr Atkinson, author of the IR standard handbook "The Effective Negotiator", considers that in any case a union determined to stay in business will demand two conditions for productivity bargaining.

- Security of employment for its members.
- If the company cake increases in size through labour productivity, the benefits to the union members must be at least commensurate with the overall increase.

Mr Atkinson, who has visited South Africa about 25 times since the Wiehahn dispensation, for research and to give IR training, has seen SA managers and union representatives travel a long way down the path to skilled negotiation. But he has doubts about inter-personal skills.

Managers still become managers because, at the shop floor level, they were good artisans, and at senior level, because they are superb accountants or engineers. "Yet if they don't have the personal skills to be in the firing line under the new labour dispensation in South Africa they could prove to be a liability despite their academic or technical abilities."

The "in" management book in the US and the UK is "In Search of Excellence", a study of how certain US companies managed to grow despite the impact of Far Eastern technology advances and the US recession. The book concludes that the organisation's attitude to employees — not simply to working conditions — has been critical in the success of these corporations.

"If the employee thinks his organisation holds him in contempt, he will buck the company at every opportunity. If he feels that there is a genuine interest in him he will tend to respond positively."

During a three-week stay in SA Mr Atkinson will introduce a series of modules for personal skills training.

Hopefully, he says, they will help to narrow the time-warps between conflict bargaining and bargaining for industrial peace.

Most not qualified for their jobs

Schooling and training the key

By Jean Hey,
Education Reporter

South Africa has the lowest productivity rate in the Western world because it uses people for jobs for which they are not qualified — in education or training

Mr D Etheredge, former chairman of Anglo American's Gold and Uranium Division, said this at a one-day seminar on "Basic Education for Workers in South Africa" at Rand Afrikaans University on Friday.

According to the National Manpower

Commission (NMC), 30 percent of South Africa's workers have no education, and 36 percent only primary education. "That means 76 percent must be regarded as ill-equipped for any job other than labouring."

He quoted the NMC report: "The overall productivity of a workforce with an education level such as that cannot be very high, no matter how dedicated everyone may be."

Mr Etheredge expressed particular concern at the lack of attention basic education had received from the Government and the private sector. About

six million South Africans are illiterate, yet their problem was barely mentioned in the White Paper on education.

"This is a most unhappy picture for a country like ours, which is struggling to move from being a Third World nation to a First World one."

The Government had pushed a lot of responsibility for worker education on to the private sector, which already had the pressure of financing other national causes.

Because the responsibility for worker education fell between the State and the private sector, neither was giving it the attention it deserved.

Speaking of on-the-job training programmes, Mr Etheredge said many were "flowing over the heads" of those being trained.

"Businesses are spending millions on training, and the Government is spending millions on tax concessions for the programmes. One wonders where it is all going."

'Literacy vital for good production'

Education Reporter

South African companies were reluctant to introduce literacy courses because they did not fully understand them and were not convinced of their benefit, former Barlow Rand training manager Mr J Butler said on Friday.

Taking part in a discussion on the objectives of basic education, Mr Butler said management was badly informed and suspicious of literacy training. Yet 40 percent of black urban males were illiterate.

Communication on the shop floor was a major problem confronting industry.

"The worker does not understand what is expected of him. If he does not know why he is doing

a job he cannot get job satisfaction and he lacks motivation. That in turn causes uneconomical production."

Poor production leads to bad quality products at high prices.

Low education also caused costly supervision because the workers had to be constantly told what to do, Mr Butler said.

He said a study of numbers clearly indicated that blacks would soon have to take over most supervisory positions on the factory floor.

"Middle management holds the key to productivity. Yet we tend to promote people who are conscientious and loyal without thinking whether they can cope with the job."

KDM 4/4/84 267

Productivity lag will hit local goods

By PRISCILLA WHYTE

JAPAN'S productivity is improving at a yearly rate of 5%-7% more than South Africa's, which means that in 13 years' time its commodities will be half the price of local products

Mr Martin Bailey, deputy director of the materials handling research group of the University of the Witwatersrand, says that in many industries in the US and Japan, such as materials handling, productivity is improving more than 5% yearly.

Pressure on local manufacturers to compete has resulted in import protection, which is perpetuating the productivity problem because associated industries have to use more expensive components. This results in industries becoming less competitive.

South Africa has an advantage of being influenced by a large number of overseas markets, but the natural result is product proliferation.

Mr Bailey says that in South Africa cars are produced from 17 different manufacturers (excluding bakkies and trucks) and there are 255 configurations.

A random sample of refrigerators available at three stores showed that there are 67 brands and 250 configurations.

Mr Bailey believes that if South

Africa wishes to remain competitive in international markets, modern, efficient manufacturing systems will have to be integrated.

He says Japan is spending over R75m to develop a flexible batch manufacturing system capable of handling small batch sizes but still maintaining productivity.

The Japanese Ministry of International Trade and Industry is co-ordinating the project, which is scheduled for completion this year.

"In South Africa our machine-tool technology has to a certain extent kept up with international progress but unless considerable attention is given to modern materials handling systems, we are unlikely to ever feel the benefits of flexible manufacturing."

The system consists of automated machining and assembly in manufacture, automated storage and retrieval of raw materials, automated transport between work areas and storage, and interfacing between transport, manufacture and storage.

He points out that the economic criteria used for the evaluation of automated systems also needs a completely different attitude from management, and the Japanese approach of "can we afford not to introduce" needs serious consideration.

Office ventilation hazards investigated

By MIKE JENSEN

WITH the growing tendency toward sealed, energy efficient buildings, recent studies on air quality and worker productivity have cast serious doubts on current ventilation practices

As energy prices have grown over the last decade building designers have increasingly tended to minimise the amount of fresh air entering buildings to reduce the costs of heating or cooling it

The effect of this on office workers is now being studied abroad and it seems the loss of office worker productivity may far outweigh any fuel savings

While almost no work has been done on this problem in South Africa, ventilation standards are virtually the same as those in North America and concern is mounting with the rapidly increasing number of older, windowed buildings being pulled down and sealed blocks erected in their place

The result is itchy eyes and skin, respiratory problems, headaches, nausea and a dozen other physical and psychological complaints, which have earned the syndrome a name — tight building syndrome, or TBS

TBS appears to be shrouded in corporate secrecy. A source at the United States National Institute of Occupational Safety and Health (NIOSH) says most companies are proceeding covertly because "it threatens to become another labour issue like video display terminal emissions, or worse."

"Long-term health hazards are unknown and legal aspects are unclear"

Companies are even secretive about studies conducted on their own operations in the wake of declining productivity. Typically, research firms are sworn to secrecy, the employees know nothing about it and the public is also unaware

In the industrial and manufacturing fields, where effects of environmental contaminants are more dramatic, most of the necessary work has been done already. Factories are typically well-ventilated and well inspected. Where

there is air contamination it is usually a temporary condition

But researchers have counted 153 airborne contaminants in sealed office buildings and suspect dozens or even hundreds more will be added to the list. Even lighting can contribute to bad air and TBS

Most of the contaminants identified are gases of the hydrocarbon family. Varying in toxicity, these are common but pose a mystery to science as they assume complex new forms which may have long-term effects on people's health

Such substances are emitted by office copiers (among the worst offenders), synthetic carpets, curtains, wall or ceiling furniture or fixtures

Also, there is carbon monoxide (usually from parking garages beneath the building), carbon dioxide, nitrous and sulphurous oxides, asbestos fibres, atmospheric wastes from neighbouring industry and a host of other gases and substances

The use of air recirculation systems to mix a small amount of fresh air with stale reconditioned air results in contaminants and toxins being recirculated through the building

And there is the synergistic effect of the contaminants, the implications of which have scientists reeling. The contaminants recombine to form new compounds — the action of one compound precipitating a negative health effect by a second and third

Studies at the Lawrence Berkeley Laboratory at the University of California, Los Angeles strongly suggest the synergistic effect among the large numbers of trace organics may be the key to TBS

A study, recently published in the Canadian Journal of Public Health, showed fresh air alone was not enough to help TBS sufferers in one Vancouver office tower

However, when this was combined with a reduction of the high ultraviolet output from office light, TBS symptoms were six times less prevalent

Industry loses R250m to alcohol

The cost of alcoholism to this country in lost production is now estimated to be more than R250-million a year, and that excludes the cost of alcoholism-related road accidents

This information was given by the Chamber of Mines social service manager, Mr Japie Starker, in a recent Springbok Radio programme "Top Level."

He said it was difficult to give accurate figures of the cost of alcoholism to South African commerce and industry, but it was at least R250-million a year.

He said statistics were not available, but this minimum figure had been arrived at by estimating the cost of both alcoholism and hidden alcoholism which took a variety of forms

These included absenteeism, accidents on the job and unwarranted sick leave.

In addition, there were hidden costs which could not be determined because alcoholism was responsible for a variety of effects — changes in personality, people becoming irritable and causing on-the-job frictions, grievances and grievance procedures that would not otherwise arise.

Thus, in addition to the estimated costs of R250-million a year, there remained hidden costs that were impossible to estimate.

World-wide research, Mr Starker said, had also shown a correlation in accidents both on and off the job with alcohol.

These accidents in themselves led to a loss of manpower which South Africa could ill-afford, Mr Starker said. — Sapa.

Business Property

Mercury 25/4/84

Financing ~~123~~ housing for ~~247~~ black staff

Property Reporter

A SYSTEM of financing housing for black staff members has been developed by Legal & General Volkskas which they claim provides increased productivity because of greater stability

According to Andre Pretorius, who heads the Housing Department of L&GV in Johannesburg, the group's scheme allows for a 95 percent bond over a period of 20 years

The purchaser of a dwelling repays only in-

terest monthly and the capital sum involved is repaid by means of the maturity value of an endowment policy

Any married male black member of staff qualifies for the scheme after two years employment.

Additions

According to Pretorius this means more than half of the black staff of the company is housed by means of this scheme

The financing applies to additions to existing dwellings and to new buildings. The size of house financed is about 90m² to 110m²

LG&V also oversees the building operations undertaken by black contractors in areas such as Soweto

PRODUCTIVITY

Rapid growth is not enough (247)

As far back as 1961, L B Katzen, a Cape economist who was generally in favour of minimum wage laws, conceded that "the basic cause of poverty in this country is low productivity" He added that although there was some scope for redistributing income from higher to lower income groups, no significant increase in living standards could

Financial Mail June 8 1984

SA is far behind in the productivity stakes, largely because of the high birth rate among blacks. This trend needs to be reversed, as economic growth alone won't be enough to bring prosperity.

be achieved unless there was "rapid economic growth and a rise in productivity"

The SA economy faces a number of development problems, including a high rate of population growth, relatively low increases in income *per capita*, and the rapidly rising aspirations of certain formerly excluded groups Table 1 shows increases

(247)

in gdp per capita for a number of countries and highlights the poor performance of the SA economy

Gdp per capita in SA grew at a far slower rate than that in advanced economies (such as the US and West Germany), as well as in some relatively poor European countries (Spain and Portugal). The rate of increase in gdp per capita in Taiwan was particularly impressive.

The inferior performance of the SA economy is undoubtedly influenced by the high rate of population growth. Our problem is that for political, social and economic reasons, we need to meet the rising aspirations of those racial groups whose population growth is greatest.

Both capital and labour inputs affect productivity. Focusing on the narrower concept of labour productivity, Table 2 shows how measured output divided by labour input declined over time. It must be appreciated that this measure of labour productivity ignores such things as labour-capital substitution, excess plant capacity, and so on, and gives in consequence a very crude indication of labour productivity. Nonetheless, it is disturbing to learn that for the four sectors shown in Table 2, earnings per employee grew annually by 18,67%, 18,67%, 13,24% and 11,88% respectively, increases in labour earnings that seem completely unrelated to changes in productivity.

A similar result can be obtained if the labour productivity index is compared with the index of unit labour costs (the cost of labour required to produce one unit of output). In the gold mining industry, for example, both indexes were set at 100 in 1975. But by 1981, the productivity index had fallen to 71,1, while that for unit labour costs was no less than 322,4.

International comparisons of changes in labour productivity and changes in earnings must always be made with a good deal of circumspection, for fluctuations in the exchange rate and differences between countries in capital-intensiveness, investment programmes, and amplitude and period of the business cycle, all affect measured results. We should not lose sight of these qualifications. Nevertheless, Table 3 reveals that increases in hourly compensation in manufacturing compared to growth in output per hour were relatively high for SA vis-a-vis our trading partners.

Wage rates rose far more rapidly than did productivity. This is clearly manifestation of the unfavourable effects of inflation.

One last piece of evidence, which concerns both capital and labour, should be cited. The capital-labour ratio increased in SA by about 25% between 1969 and 1978. Average production per worker increased more rapidly than did this capital-labour ratio in the Sixties, but more slowly than that in the Seventies, despite far greater capital-intensiveness in the Seventies. The greater capital-intensiveness in the latter period did not apparently result in the

Table 1

HOW WORLD STAKES FALL

Gross domestic product per capita in constant 1975 prices and exchange rates (Rands)

Country	1972 R	1981 R	Average annual growth rate (%)
USA	5 199	6 002	1,80
Canada	4 950	5 996	2,03
West Germany	4 883	5 944	2,53
France	4 435	5 492	2,52
Japan	3 123	4 174	3,14
Spain	1 920	2 326	1,83
Portugal	1 132	1 445	2,42
SA	1 000	1 095	0,56
Taiwan	622	1 078	6,34

Source: NPI, Productivity Statistics, 1983

more effective use of labour

The question must naturally be asked what can be done to improve productivity at both the macro- and the micro-economic level? In addition, what must be done to ensure that increases in money wages do not significantly outstrip improvements in productivity?

At the national level, the authorities have already taken some steps towards improving productivity. State aid to the National Productivity Institute (NPI), and special tax relief for certain in-industry training courses, provide two clear examples. But as long as the authorities fail to get the money supply under control, and while "inflation psychosis" persists, wage increases will continue to outstrip improvements in productivity.

At the micro-economic level, individual firms should be more conscious of the gains to be made from improved productivity. A study undertaken jointly by the Federated Chamber of Industries (FCI) and the NPI revealed that in the manufacturing industry in 1979, the better utilisation of labour added R252,5m on revenue, while increases in salaries and wages absorbed a mere R127,3m. In consequence, the better utilisation of labour significantly improved company profits. Indeed, the NPI has shown that in the case of a large number of industries there is a definite positive correlation between productivity and profitability.

But what exactly can management do? Two broad areas deserve consideration.

Firstly, management should continually assess company performance, not only on the basis of total profitability or return on assets employed (or some other profitability ratio), but also on the basis of productivity. A firm may enjoy increased profitability as a result of a higher selling price of its product, yet could still experience a loss in productivity. The firm, if guided only by annual comparative profitability figures, would not detect that it could have performed at peak efficiency. By directing attention to productivity, areas of weakness may be identified and the appropriate action taken.

This could be in the form of different

combinations of factors of production, informal on-the-job training, formal training programmes, or whatever.

Secondly, companies should, in preparing their annual *ex ante* budgets, translate target figures into terms of productivity. This would assist in determining whether budgets are realistic and attainable, or whether the implications in terms of productivity amount to nothing more than "kite flying". Once having derived "reasonable" objectives, the productive requirements of all sections and departments, should be made known to all levels in the hierarchy.

Thus, with all firms acting in their own best interests, and with the profit motive as the driving force, it would be possible to marry the micro-economic objectives of the firm with the "common good of all" objective of society.

Table 2

MEASURING LABOUR

Growth rates of labour productivity — SA, 1970-1982

	Average annual percentage change
Mining	-2,26
Gold Mining	-4,74
Manufacturing	2,32
Finance	-0,03

Source: NPI, Productivity Statistics, 1983-P3

Table 3

OUTPUT AND EARNINGS

Average annual growth rate of output per hour and hourly compensation in manufacturing (1971-1981)

Country	Growth of output (%)	Growth of earnings (%)
Japan	7,1	13,2
West Germany	4,9	10,6
France	4,8	15,3
USA	2,0	9,0
SA	2,0	13,3

Source: NPI, Productivity Statistics, 1983, pp 108-109

ar L...
 ...ing gap that threatens "catastrophic results" in the consumer price index spiral

It shows that while salaries and wages jumped by an average 14,2 percent in the manufacturing sector in 1983, labour productivity skidded 4,6 percent lower — the worst on record.

The overall labour cost of units coming off factory production lines soared by 19,6 percent — nearly four times faster than five years ago

The NPI plans to invite the chairman of leading companies in each of the main business sectors — selected from the JSE top 100 — to form a special panel to work out a strategy on how to reverse the worsening trends

The first session of the business brains trust is expected to be held early next month during the nationwide Productivity Week in which the gravity of the situation is likely to be spelled out by

about virtual economic survival as our overseas trading partners go striding further and further ahead of us and our high production costs threaten to squeeze us out of world markets.

Dr Visser blames the poor productivity record for the way ultimate living standards are being eroded by inflation.

FURTHER BEHIND

The study shows that output a head is now running more than six times higher in Switzerland, five times higher in the United States, four times higher in Japan and three times higher in Britain than in South Africa

And annual average changes are pushing South Africa further behind The NPI study notes that Taiwan has taken less than a decade to overtake South Africa in gross domestic product ahead, the first measure of living standards, with annual increases running 10 times faster since 1972.

"It cannot all be blamed on employees, especially in a recession when total production declines because of less demand and there is more capacity standing idle," argues Dr Visser

"The chronic high birth rate also needs solution if families hope to attain a better living standard

"But first and foremost it is management that needs to put on its thinking cap about the catastrophic way things are going."

'How we raised output, quality and profits too'

By Malcolm Fothergill

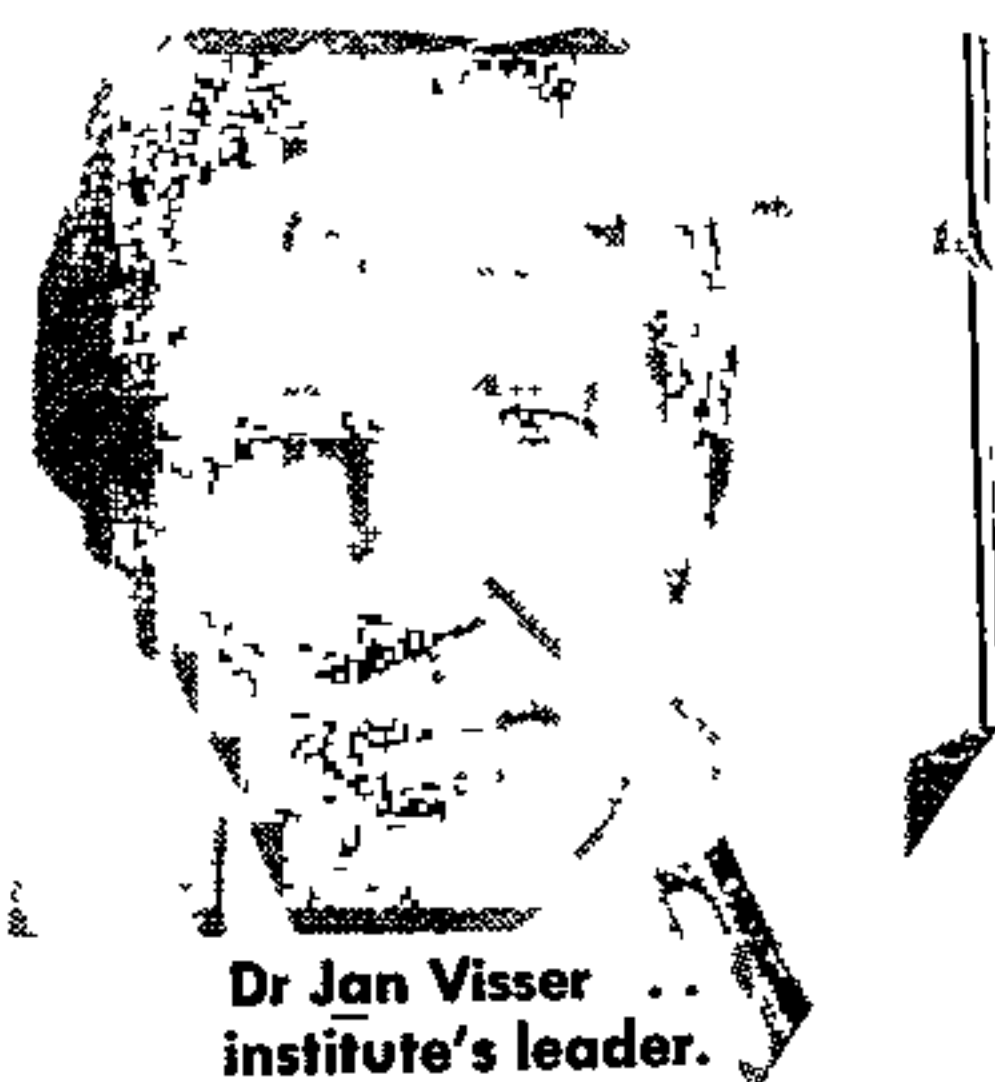
Productivity in South Africa will come under the spotlight at a high-powered one-day conference in Johannesburg next month.

Four South African companies, winners of National Productivity Institute annual awards, will tell delegates in detail how they have increased output, improved quality and boosted profits during the worst recession since the 1930s.

The "Productivity Through People" conference on July 30 is being presented by the Management and Manpower Foundation and The Star as a follow-up to the highly acclaimed "In Search of Excellence" conference in March. It will be opened by the Minister of Industries, Commerce and Tourism, Dr Dawie de Villiers.

Case histories will be given by senior executives of Middelburg Steel, David Whitehead, Rowen (SA) and Standard Bank.

Also speaking will be Mr Dennis Etheredge, president of the SA Institute of Management and former chairman of the gold and uranium division of Anglo American; Mr Mof Lemmer of Sigma Motor Corporation; and Dr Jan Visser, executive director of the National Productivity Institute.



Dr Jan Visser
 institute's leader.

More money for less work can only increase inflation, says study

Work gap threatens catastrophe

See 247

14/6/84

By Michael Chester

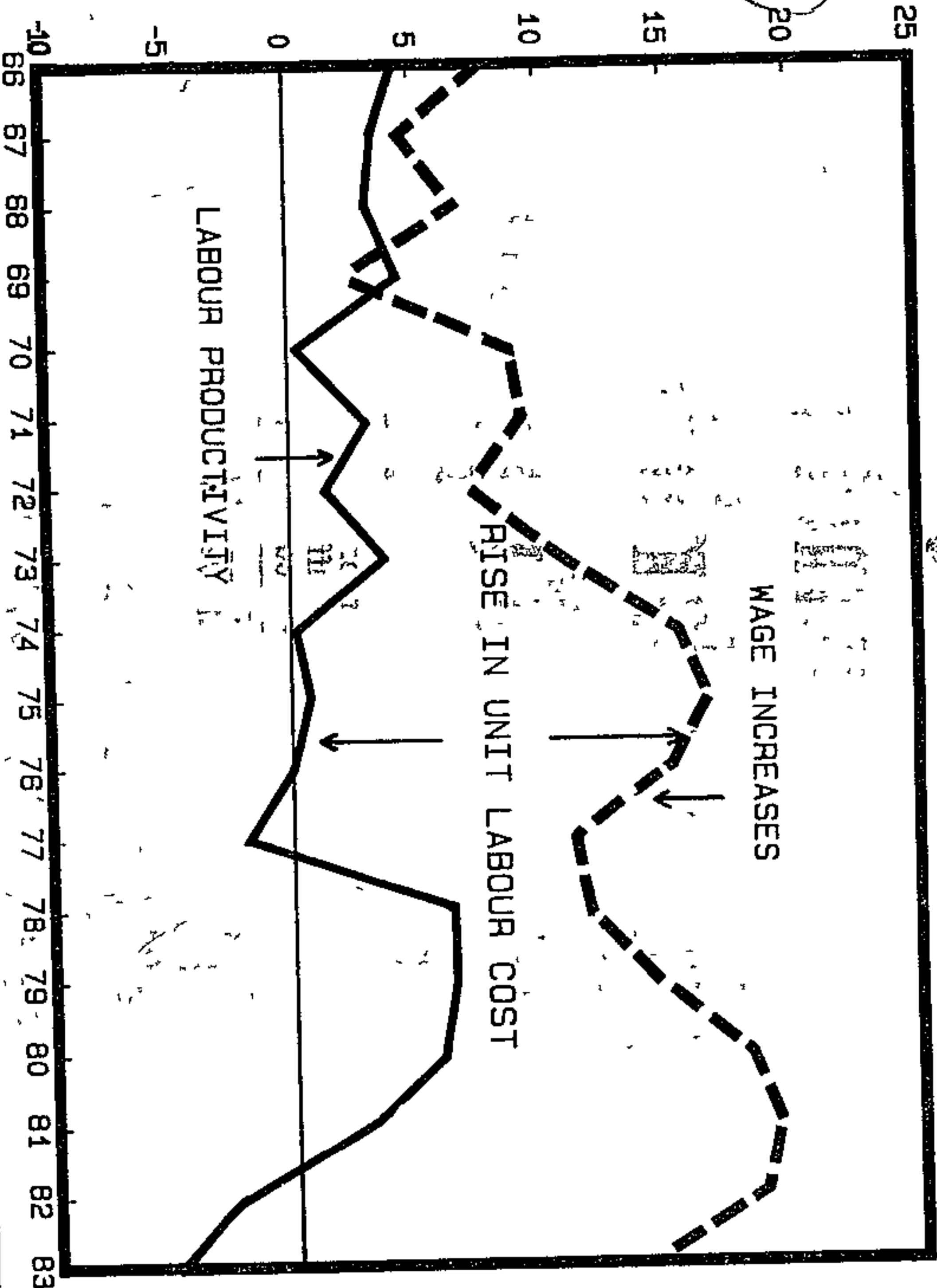
There is renewed alarm over the yawning gap between the pay packets and shrinking productivity — blamed as a main cause of high inflation and revealed in a special study. The study, prepared by the National Productivity Institute,

Mr Dawie de Villiers, Minister of Industries and Commerce.

"South Africa has paid lip service to productivity in recent years, but now it has become crucial that positive action is taken," Dr Jan Visser, executive director of the NPI, told 24 Hours.

"It's no longer a matter of tut-tutting over our dismal performance. We are now talking

ANNUAL PERCENTAGE CHANGE



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-11

NPI alarmed over widening SA pay, productivity gap

ARGUS 15/6/84

Argus Correspondent 247

JOHANNESBURG — Renewed alarm over the yawning gap between fatter pay packets and shrinking productivity — blamed as a main cause of high inflation — has been revealed in a special study.

The study, prepared by the National Productivity Institute, warns that it has spotted a widening gap that threatens "catastrophic results" in the consumer price index spiral.

70 It shows that while salaries and wages jumped by an average 14,2 percent in the manufacturing sector in 1983, labour productivity skidded 4,6 percent lower — the worst on record.

The overall labour cost of units coming off factory production lines soared by 19,6 percent — nearly four times faster than five years ago.

BRAINS TRUST

The NPI plans to invite the chairmen of leading companies in each of the main business sectors — selected from the JSE Top 100 — to form a special panel to work out a strategy on how to reverse the worsening trends.

The first session of the business brains trust is expected to be held early next month during a nationwide Productivity Week in which the gravity of the situation is likely to be spelled out by Mr Dawie de Villiers, Minister of Industries and Commerce.

"South Africa has paid lip service to productivity in recent years, but now it has become crucial that positive action is taken," Dr Jan Visser, executive director of the NPI, said.

115 "It's no longer a matter of tut-tutting over our dismal performance. We are now talking about virtual economic survival as our overseas trading partners go striding further and further ahead of us and our high production costs threaten to squeeze us out of world markets."

LIVING STANDARDS

9A Dr Visser blames the poor productivity record for the way ultimate living standards are being eroded by inflation.

19 The study shows that output per capita, as compared with South Africa, is now running more than six times higher in Switzerland, five times higher in the United States, four times higher in Japan and three times higher in Britain.

91 And annual average changes are pushing South Africa further behind. The NPI study notes that Taiwan has taken less than a decade to overtake South Africa in gross domestic product per capita, the first measure of living standards, with annual increases running 10 times faster since 1972.

20 "It cannot all be blamed on employees, especially in a recession when total production declines because of less demand and there is more capacity standing idle," argues Dr Visser.

— "Also to be counted is the inefficiency of the productivity of capital as more and more firms have switched to automation and companies hang on to more workers than actually needed because they don't want to lose scarce skilled labour which will be wanted to spearhead any upswing."

"The chronic high birth rate also needs solution if families hope to attain a better living standard."

"But first and foremost it is management that needs to put on its thinking cap about the catastrophic way things are going."

Volkskas calls for import controls

247
Mercury
19/6/84

Financial Editor

POOR productivity is the heart of South Africa's economic problems, the latest issue off Volkskas's Economic Spotlight declares but it requires a long-term approach.

But a short-term attack could include import control on luxury goods, or products available locally, more stringent hire-purchase conditions and a 'Buy South Africa' campaign.

The current emergency situation in the South African economy calls for these measures

'There is no choice but to accord the highest priority to strengthening the balance of payments

'This must take precedence over all other economic objectives even though it will hardly be possible to prevent (temporary) damage to economic growth in the process

'This applies to the struggle against inflation

Crisis

'The country is faced with a crisis in the balance of payments and economic growth and it cannot cheerfully continue squandering valuable foreign exchange on products which are either not absolutely essential or it can do without in the short term

'A further decline in the economic growth rate can hardly be afforded and if growth can be supported with import replacement, we believe the idea is worthy of consideration

'Most domestic sectors are running at levels very much below normal full capacity so that the substitution of locally manufactured products for imports can make a considerable contribution to the enhancement of domestic activities, more job opportunities and

higher profits and also an increased flow of Government revenue and, for the moment, also a deceleration of the inflation rate and lower interest rates

'The country simply must have growth, but such growth must be accompanied by a strengthening of the balance of payments. This leaves only two possibilities — reduce imports by import replacement and do everything possible to increase exports

Taxation

The authorities have relied relatively heavily on higher taxation to achieve the economic goals

'The intention of the authorities is clear they would like to reinforce the operation of free market forces — a praiseworthy objective, in our view

'The question does arise as to how successful this approach has been or how successful it can be, given the relatively abnormal economic circumstances in which the country finds itself as a result of among other things, several poor agricultural seasons

'Given the current economic problems and the

circumstances which aggravate them, the imposition of import control on luxury goods and products available locally, more stringent hire-purchase conditions and a 'Buy South African' campaign may serve a useful purpose

'Let there be no misunderstanding on this point. We do not regard these instruments as ideal but when an emergency situation has to be contended with in the relatively short term, we cannot see anything wrong in applying appropriate measures'

Output

This plan was not likely to solve South Africa's fundamental problem of unsatisfactory productivity performance

But Volkskas works against the introduction of wage and price controls as an instrument, even in the crisis situation of the moment

'This would amount to screwing down a lid on a pot of boiling water. Sooner or later something must give. It would be far better to add more cold water to the pot (a greater supply of goods and services) or to turn down the flame under the pot (curbs and demand)

'Sight must never be

lost of our long-term objectives and instruments applied in the short term must be done in such a way that it will disturb the long-term programme as little as possible or, if disruption is inevitable, act in such a way as to ensure that the disruption will be temporary and minimal'

Continued efforts to curb domestic demand further could become counter-productive

'Much more attention will have to be given to the possibility of increasing domestic production by replacing imports and promoting exports

The rand

'In addition, the Government should give exporters and potential exporters the assurance that the value of the rand will not be permitted to rise to more than, say, five percent above the real exchange rate levels. In this way exporters will be able to base their quotations for export contracts on basic economic developments in South Africa and exports will not be at the mercy of the vicissitudes of the gold price which, through the exchange rate, bear little or no relation to developments in the South African economy'

Pay incentive schemes set productivity pace

By Michael Chester

Star

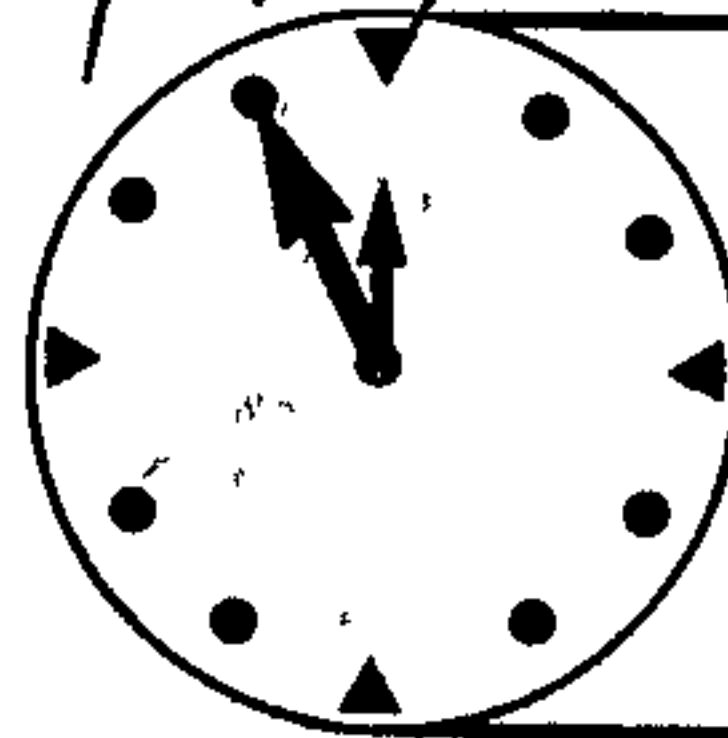
21/6/84

Hundreds of engineering firms are planning to offer their labour forces new deals to link their pay to productivity — and dangle the promise of rewards running into millions of rands if output improves.

At least half a million workers — the estimated total of employees in the manufacturing sector — stand to benefit if they accept the challenge to cut down on absenteeism and put more muscle into their jobs.

The number of factories involved in talks with shop stewards is growing daily, according to informed sources. And there is mounting evidence that the philosophy of reward-for-effort is likely to spread beyond the production lines into offices to include white-collar workers.

The radical new approach has been inspired by the success of a pathfinder scheme launched by



**24
HOURS**

**The team
that wraps
up the news**

the giant Sigma Motor Corporation on the outskirts of Pretoria.

The moves also follow grave warnings by the National Productivity Institute that South Africa's dismal record of productivity over the past decade is worsening and leaving producers lagging far behind overseas rivals in price competition.

Mr Mof Lemmer, director of manpower development at Sigma, told 24 Hours that remarkable gains in productivity had been scored since the company ironed out its work incentive pact with trade union leaders.

The scheme hinged on a formula worked out by industrial engineers and agreed with shop stewards. It sets out an index on how many hours it should reasonably take to assemble a set number of vehicles — at rigid quality criteria.

In turn, cash incentives were offered to all 2 000 hourly-paid workers on production tracks on a sliding scale depending on performance and promising to add up to 26 cents an hour.

"We have all been amazed at results so far", said Mr Lemmer. "In the past three months, our productivity index has soared from around 75 percent to 94 percent."

"Labour turnover, always a costly business, has slumped from an annual rate of 45 percent to only 13 percent. And absenteeism is plummeting as the penny drops that if a worker bunks he misses out on incentive pay."

"Now we are linking the scheme to bring in all salaried staff. We can already see good prospects of turning a chronic run of heavy financial losses into the black ink of profits by the end of the year."

Both the Manpower and Management Foundation and the Afrikaanse Handelsinstituut, aside from a growing number of individual firms, have asked Sigma for details of the scheme.

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Just no ducking automation onset, report argues

By MIKE JENSEN

THE argument that industry should not automate because of its labour situation is naive, says a research report.

It says automation must be regarded as inevitable if the manufacturing industry is to emerge from its crisis.

The head of the University of the Witwatersrand's department electrical engineering, Professor Mike Rodd, says several studies have concluded that the manufacturing industry is in dire straits.

Prof Rodd believes the only way out is automation to increase productivity and the standard of goods produced, thereby improving export potential.

Comparing international statistics on productivity per capita illustrates the serious situation in which SA finds itself.

"In essence, we rate as a competitor for countries such as Turkey and Spain. In comparison with the US, our productivity is some four times less."

It is not surprising there is a trend towards the closure of factories and the import of products from the East. While we are not alone in this, we have a greater resistance to automation, he says.

A typical example is GEC's closure of its small electric machines plant in KwaZulu. An Australian company faced a similar problem of producing uncompetitive electrical machinery. Instead of closure, the plant was robotised.

"The result was to create a facility able to produce electric motors, comparable in cost to the imported Japanese one and, in terms of quality, just as acceptable."

SA's manufacturing industry had certain unique features — primarily because of the small population level and the high number of products marketed. There was, therefore, a limited demand for each product.

Low productivity meant the export of industrial products was virtually impossible, thereby aggravating the situation.

"In the end it is hardly worth investing in sophisticated machinery for where such machinery is installed it is under-utilised and under-productive."

"The situation is a spiralling one and, unless we break this spiral, we

will see a situation in which SA slumps lower and lower down the line of the world's manufacturing countries.

"The result is that we are inheriting the effects of unemployment in other countries and are effectively on the receiving end of exported unemployment."

"We have reached the situation where our raw materials are shipped to the East and then we have to repurchase manufactured articles at several orders of magnitude of increased value — the added value to our natural heritage is occurring outside the country."

The surplus of unskilled labour should generate resistance to automation because this will only result in fewer jobs being made available.

Nevertheless, he cites a recent study of the Carnegie-Mellon University in the US which concludes that robots have the potential to eliminate 2-million jobs in the metalworking industry by 1990.

However, the authors of the report claim that half a million jobs will open up because of industrial expansion stemming from the increased use of robots.

The Institute for Employment Research at Kalamazoo, Michigan, says that robots in the state will replace three workers for every job they create.

Prof Rodd says because of increased automation the current global unemployment situation is likely to continue when the recession is over.

In SA the situation is particularly bad as there is an increasingly unskilled population and a decreasing skilled labour force.

"The introduction of robotics and computer integrated manufacturing in general, will undoubtedly lead to a decrease in the available job opportunities."

The structure of the skilled workforce will also change.

"Since (automated) factories require less labour, they require less supervision. The supervisors needed are usually engineers or technicians."

One of the solutions to the displacement of workers by automation is to shorten the working week. It has declined steadily since the beginning of the Industrial Revolution.

Sigma's pay-for-productivity won't pay

By Malcolm Fothergill

Sigma is heading for a crash with its pay-for-productivity plan announced recently, predicts mining industry consultant Mr Tom Grant.

There's nothing wrong with paying for productivity, he says, but unless the plan is put together with great care it can backfire, encouraging an increase in absenteeism and sending productivity figures plummeting.

"To pay a guy is only a pleasure, provided he produces," says Mr Grant.

"The danger is that you could end up paying people for doing nothing."

He quotes the experience of the Chamber of Mines in the mid-1970s, when it decided to introduce attendance bonuses.

Full attendance for a month rated a cash bonus, one shift missed cut that bonus, two shifts missed cut it even more.

"The net result was that ab-

senteism went up. The mines were paying for people to stay away from work.

"What you want is for people to come to work all the time, over extended periods."

Mr Grant believes a system he devised and patented 14 years ago has the answer.

Its objective is simple — to get people to come to work every day and to encourage them to work safely once they are there.

At its lowest level, that of the team leader — the first line of management on a mine — the system involves each team leader in placing a white washer on a board every day before he goes underground.

Thus, it is explained to him, is not only to record his attendance, it is also his pledge to work safely for that shift.

Each month he works without missing a shift and without an accident entitles him to a cash bonus, which is given to him, along with a handshake from a senior official, separately from his pay packet.

As the number of shifts worked without any absenteeism goes up, the team leader moves through a series of premium levels, each marked by a different colour of washer on the board, until he reaches gold after 80 shifts.

Once on gold he stays there until he misses a shift.

After a year he gets a special prize — a watch, perhaps, or a radio.

For bonus purposes, Mr Grant's system recognises no varieties of absenteeism — if a man is not at work, for whatever reason, he is registered as ab-

sent and has to start climbing the premium ladder again.

"The system works because it has a simple objective — getting people to work, and getting them to work safely," he says.

"It's precise, practical, personal, participative, profitable and people-oriented."

"It encourages enthusiasm because each team leader keeps his own record and because the rewards become greater with time."

"The amount paid for each premium level means nothing. What does the trick is putting the washer there."

The system works in a similar way for the second tier of mine management — shift bosses and mine captains — except that instead of putting washers on a board they fill in blocks on a piece of paper.

First the miner fills in one block to register his pledge to work safely for the shift, then, at the end of the shift, his shift boss fills in an adjacent block in a different colour to register that he worked an accident-free shift.

Although Mr Grant's system is used only on mines at the moment — not always with his approval, he says, which is why he has spent R60 000 so far this year on legal fees, fighting people he alleges have broken his patent — he believes it could be applied with equal success in other fields.

One of his first successes was his daughter. He put up a board to record her attendance, at school and whether she believed she had learnt anything each day, and created so much enthusiasm for studying that she is now a final-year law student.

3/7/84 D. Rispach

Municipality probes labour success

247

EAST LONDON — The East London Municipality has sent a delegate to the Durban Municipality to investigate the secrets of their remarkable success in labour productivity

At a meeting of the Municipal Council's Action Committee last night, the chairman, Mr J A Yazbek, reported on the chief work study officer, Mr Philip Souchon's visit to Durban last week

"The main reason why he was sent to Durban, was because we want to try to achieve similar results as their municipality," Mr Yazbek said

The Durban Corporation's Organisation and Methods Department won the National Productivity Institute merit award for increasing productivity in labour intensive functions by 68 per cent and showing cumulative savings from

1979, currently exceeding R10 million

"Mr Souchon investigated the various systems in Durban with the view of eventually introducing them in our municipality. These systems are obviously a further step in implementing the National Productivity Institute report into the municipality. We are hopeful that all these productivity systems will benefit the ratepayers tremendously," Mr Yazbek said

Mr Souchon found last week that Durban's success had been due to the following factors

- The full and unqualified support of all levels of management in work study

- The motivation of employees through a system of "measured day's work". This allows the worker to knock off as soon as he has finished his measured day's work. Alternatively he

can get a cash incentive bonus to a maximum of a third of his wage. His productivity is measured by comparing it with a "fair day's work", based on standard times set and controlled by the work study staff

- Incentive schemes carried out with strictly controlled time standards for all sorts of repetitive services, each standard being scrutinised by management, workers and their trade unions before receiving the approval of the council

- Regular audits of the bonus schemes carried out by the staff of the City Treasurer's department

"With these measures Durban did not only multiply the productivity of its employees and saved millions of rands, but also reduced its unskilled labour complement by half," Mr Yazbek said — DDR

Elbow grease versus 'puppet parliaments'

LABOUR WEEK by PHILLIP VAN NIEKERK

ROM 3/7/84 (132) (247)
WITHIN hours of his appointment, the Minister of Finance-designate, Mr Barend du Plessis, warned workers they were earning too much for the amount they were producing.

In so doing he was repeating a view that has been increasingly voiced by, among others, the National Productivity Institute.

It is a view which lays much of the blame for the performance of the economy on the relative improvement of wages as against productivity (itself a controversial concept).

But if Mr Du Plessis believes the way to fiscal health is to convince workers to tighten their belts and apply more elbow grease, he has a lot of convincing to do.

This is particularly so given one of the first major tasks of his office — forking out taxpayers' money to pay for the new constitution with its three parliaments and massive bureaucratic edifice.

If Mr Du Plessis wants to know what the emerging mainly black unions think of all this he need look no further than the editorial in the latest edition of Worker News, official mouthpiece of the Federation of South African Trade Unions (Fosatu).

"Over the years," notes the editorial, "workers have had to pay for their own exploitation... now the government has not only ignored workers' rejection of the new constitution and is proceeding with the election to the two new puppet parliaments, it also expects us to pay for it... just as we had to pay for the bantustan governments."

"As the government continues to build its elaborate disguise for the same old apartheid system, it keeps on needing more and more money, but the government does not ask for more tax from the companies... instead the workers are taxed by increasing the general sales tax."

"What have we got out of the present economic system? Racial oppression, poverty wages, rising food and transport costs, unemployment and economic exploitation — these are the benefits of the free enterprise system."

20M 10/7/84

24-7

Low productivity level draws warnings

Financial Reporter

TWO major warnings about SA's dangerously low level of productivity were given yesterday.

The Director-General of Manpower, Dr P J van der Merwe, told a symposium in Johannesburg there were many valid reasons for the country's low productivity over the past few years but the lack of appropriate training at all levels was probably one of the most serious drawbacks.

Volskas said in its July Economic Spotlight, "Whichever way we look at the matter, SA has performed rather poorly as far as raising productivity is concerned. This is cause for grave concern and calls for more than merely a productivity week to see what can be done about the matter."

Dr Van der Merwe said, however, he was confident that current research projects would lead to an improvement in training efforts and raise standards to the desired level.

Africa was wrestling with formidable development problems

"These situations create tension and can lead to total distrust in the education and training systems," he warned

"Moreover, it can also lead to scepticism over the ability of a system of free enterprise to raise the prosperity and welfare of the nation"

There was a serious need for the State, employers and employees to deliberate continually over the contribution of education and training towards a more effective utilisation of the country's available manpower resources, Dr Van der Merwe said.

Volskas said the fact that a productivity week had been declared indicated that "there is a screw loose somewhere".

Referring to Productivity Week, from July 30 to August 3, it asked "Why is that necessary? Surely it is one of the strong points of an economy based on the free market system and individual decision-making that the citizens of that country perform their day-to-day tasks productively and efficiently."

"The very fact that a week has been set aside . . . is indication enough that there is a screw loose somewhere. As for SA's productivity performance, one is virtually obliged to say that there is very little, if any, evidence of such performance"

Information supplied by the National Productivity Institute (NPI) showed the multi-productivity index (productivity of labour and capital, agriculture excluded) had increased by an average annual rate of 0.57% during the period 1970 to 1982

"This means that the combined productivity of labour and capital was 6.6% lower in 1982 than in 1970."

"The productivity of capital alone declined by 2.47% a year or 26% over the period in question. While productivity did, in fact, rise by 1.17% a year, or 15% over the 12 years, this is a rather poor performance in view of the growing capital intensity of the economy and the performance of other countries"

Comparative figures for manufacturing in respect of output per hour revealed an average annual growth rate of 2.0% from 1970 to

1981. This compared badly with most other major industrialised countries.

At the beginning of the 1970s production per worker in the US was more than four times higher. Since 1970 the average remuneration of workers in the US had risen much more slowly so that unit labour costs had increased by 6.2% a year on average in the US, compared with 10.7% in SA.

Volskas defined productivity as the better and more efficient application by management of all production means to realise the maximum output at the lowest possible cost.

"It is essential to promote and increase productivity because, more than anything else, it is the instrument or means to produce greater wealth"

It quoted from a recent NPI report which said productivity growth in many of SA's major trading partners was responsible for as much as 60% of their economic growth rates.

As a result, the economies of these countries were becoming more efficient and competitive, while in SA productivity played a small or even negative role in growth performance.

RAM 12/7/84 (711) 247

Training of blacks vital

By PRISCILLA WHYTE

TRAINING blacks to fill higher-level jobs is the most important single challenge facing managers, according to Dr Braam Fourie, Director-General of the Department of Education and Training.

He told the national convention of the South African Society for Training and Education at Rand Afrikaans University. "Above all, we need to accept the urgency and importance of advancement of blacks and to approach the challenge systematically."

The most dramatic increases were necessary at the higher levels of the manpower hierarchy.

"Future executive intake a year from groups other than whites is projected to be 14 times the rate achieved in the previous two decades. Intake of highly-skilled white-collar workers must be five times the 1959-79 average," Dr Fourie said.

The country would be faced with unemployment on an unprecedented scale unless a mammoth programme of training and development were undertaken.

"We need to set in motion ways of introducing into training programmes supplementary material, which compensates for disadvantaged backgrounds."

South Africans needed to examine assumptions about cultural norms and values and to build into management and motivation procedures additional checks and incentives to help create a more favourable climate for human development.

If training needs were met, but productivity not raised, all the efforts would be in vain.

"Relative abundance of minerals, labour and cheap energy has tempted SA to expand production by employing more people and not realising higher productivity," Dr Fourie said.

In Europe, some two-thirds of economic growth stemmed from higher productivity. In SA the proportion was about 30%.

Figures from the National Productivity Institute showed that between 1970 and 1980 the real gross domestic product for each worker grew by only 4.6%.

Argus 20 21/7/84 (255) 247

'Problem' of productivity in civil service to be probed

Weekend Argus
Correspondent

PRETORIA — The National Productivity Institute is to probe the productivity of the the public service

Details of the study were "confidential" Mr Stephanus Laubscher, of the institute, said this week. Because of the magnitude of the study, the institute was formulating a framework for the survey, which should begin in a few months.

"Productivity in the public service is an ongoing problem and it has now been decided to tackle it on a formal basis," Mr Loubscher said.

"This is a very sensitive issue and we have been asked not to discuss it. It is

also policy to treat all clients as confidential."

The number of public servants has risen by 49 percent to 253 562, since six years ago, when Prime Minister Mr P W Botha said he was going to rationalise South Africa's public service.

Dr Joop de Loor, the then Secretary for Finance, publicly said five years ago that the Government intended to reduce the number of civil servants by not replacing those who left or retired.

The study which is to be undertaken could affect the jobs of thousands if it is used by the Government in its attempts to cut staff. Latest figures showed that 35 percent of all gainfully employed whites work directly for the public service.

One in four gainfully employed coloured people work for the State, while 19 percent of black and 16 percent of Indian workers do.

One fifth, or more than R5 000-million, of total Government spending now goes on salaries and other payments for public servants.

Mr At Engelbrecht, Volkskas chief economist, welcomed the NPI's project as a step in the right direction.

"I am not pointing a finger at the public service or saying that their productivity is low, but it is essential for South Africa's future that we step up productivity in all sectors."

"Because of this I welcome the move. It is one which should be followed by other organisations."

Productivity: A management problem?

By PRISCILLA WHYTE
JOHANNESBURG —
Productivity is a management problem and not a worker or government problem, according to Minister of Industries Dr Dawie de Villiers

However this point of view — expressed at the Management Manpower Foundation "Winners" conference yesterday — was strongly challenged by Mr John Hall of Middelburg Steel and Alloys

(MSA) (247) C Times
Dr De Villiers said "Management should not point accusing fingers at tax policy or trade unions as the cause of the (productivity) problem"

"They should begin with themselves and accept that their possible lack of commitment and resolve to improve productivity lies at the heart of the problem"

He said productivity is a long term investment,

which concentrates on the bottom line and on those items which have an impact on it

Mr Hall, executive chairman of MSA, said he disagreed Dr De Villiers' statement

He said "We (management) do need a little help from our friends (the government)"

He believed private sector management can do much to improve competitive abilities but

nationwide productivity is a team effort

He noted that in curbing government spending there must be dozens of opportunities to streamline bureaucracy and to bring about great improvements in productivity

He added that the primary education system, whilst improving, is still not providing the human factor which can rapidly change and alleviate "the frightening shortage of skills"

"The shortage of skills is inflationary, an inhibitor of productivity and economic growth," Mr Hall said

Dr De Villiers said that recently South Africa has experienced a considerable capital intensification in industry and he questioned whether the South African manufacturing industry is using appropriate technology considering the resources available.

During the 1970 — 1982 period, the capital/labour ratio in South Africa increased at a rate of 4.4% a year

"If this growth rate continues (and the indications are that it is escalating rather than receding) it means that in real terms the capital per worker will in 1986 be twice as much as in 1970", he said

The minister pointed out that capital productivity in manufacturing decreased at a rate of 1.9% a year from 1970 to 1982

New technology is usually embodied in capital equipment

Technology

Dr De Villiers said industry should ask itself whether it was active enough in sponsoring technological developments in the form of equipment, which was attuned to the abundant labour and raw material resources available to it — or did it merely import new equipment from countries where the resource base is vastly different from that of South Africa

He added that the manufacturing industry is going to be the cornerstone of South Africa's future economic development.

Domestic demand alone can not provide the economic growth required to create the urgently needed job opportunities for the rapidly increasing labour force

He said gold and other minerals are a rapidly diminishing resource and it is imperative to establish a competitive and viable export trade in manufactured goods.

He noted that industry will have to rely on improved productivity as a source of profits.

The period of relatively easy industrial development has passed irrevocably, he noted

Productivity key to social order

S. Times 5/8/84 247

SOUTH Africa's social and political order could be placed in jeopardy unless productivity begins to match that of its trading partners, says Professor Jan Lombard, a consultant to the Reserve Bank.

Prof Lombard, head of the department of economics at the University of Pretoria, says. "Financial discipline remains a prerequisite for economic growth through productivity improvement."

He issued his warning at a productivity week seminar in Johannesburg

Focus

Defending the Government's anti-inflationary measures, Prof Lombard attacked the view that the State should focus on increasing productivity instead of regaining financial discipline

His argument is that if SA is to return to real economic growth through improved productivity, the pre-condition must be economic stability.

He said. "The main re-

By Amrit Manga

quirement then is the reintroduction of financial discipline"

The director of the Japanese Productivity Centre in the USA, Mr Jori Arai, told the seminar. "Unless the transfer of skills to SA's developing sector takes place soon, the country could remain trapped with below expected growth rates in the long term"

"SA displays characteristics of both First and Third World economies, and it is at a special disadvantage"

"But the disadvantage can be turned around if intermediate technology, as opposed to high technology, is transferred to the developing sectors. This is the single most important way in which productivity can be increased by using SA's most abundant resource — unskilled labour"

Aggressive

"The spin-offs will mean bigger markets which will increase the capacity use of high technology"

Giving Japan as an example, he said "Domination of certain sectors of the world export market must be attributed mainly to our aggressive approach to competition in high-tech areas"

Only way

"It is the only way Japan can enjoy an improved quality of life. We have given high priority to improved productivity as a matter of survival"

Although Japan once had the problem of double-digit inflation and low productivity, a systematic improvement of skills and a balance between wage demands and productivity growth helped to overcome a potential crisis

Commitment

But can Japanese success be repeated in South Africa?

Mr Arai believes it takes a lot more than a fancy productivity programme

He said "It takes a firm commitment to productivity growth on the part of both managers and workers"

Illustrating the odds

against Japanese competitiveness, he said his country imported \$60-billion worth of oil a year, 87% of its coal, 86% of its iron ore and 30% of its food

"But we remain competitive — by maximising value added through human input. This is partly achieved by investing more than 0.05% of our gross national product in training compared with America's 0.02%"

Graduates

One of the key differences between East and West was the definition of productivity. Mr Arai said "Americans and South Africans tend to measure productivity by dividing value of output by input costs, Japanese see it as the creation of new value."

Professor Lombard agreed, saying. "Economic growth depends on increasing productivity — producing a larger added value from a given set of available inputs"

Mr Arai said "More than 20% of our graduates are from engineering schools. Management staff make up more than 7% of our labour force"

Japan nevertheless remained an importer of technology, for which it paid nearly \$1.6-billion a year

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Productivity programmes need rethink

By PRISCILLA WHYTE

THE Government and business leaders are not addressing themselves to the vital issue of black advancement, says Mr Ben Viljoen, the deputy group personnel manager of PPC Lime

They were merely reacting to a backlog of problems and until they were able to anticipate problems, greater productivity would remain a mirage, he told a Press conference in Johannesburg earlier this week.

"The biggest problem is that much of our industry is dependent on a mass of labourers situated at the bottom of the hierarchy with little hope of movement upwards."

Mr Viljoen said training at this level would have little impact on productivity.

"Expectations are raised which have little chance of realisation

"The fact is that with current advances in technology, the mere presence of the labourer on the job can be a counter-productive force.

Mr Viljoen said many jobs might have to be phased out of capital-intensive industries such as cement manufacture as machines were far more productive than people

He hoped the resultant unemployment at this level could be absorbed by opportunities created by the current and long-overdue freeing of Government thinking on free market forces.

PPC Lime employs 3 500 people. Since 1977 the group has spent R6m on training and plans to spend another R5m to R6m over the next three years.

Mr Viljoen was critical of the way in which many training schemes were implemented and said there was an urgent need to work towards a more balanced distribution of skills

The boom conditions of the late 1970s and early 1980s and the crippling shortage of skilled manpower had led to a "train or die" mentality

Training was put on a pedestal and automatically equated with higher productivity

The Government played an unwitting part in this scenario by offering unprecedented tax incentives to companies undertaking training programmes

This was compounded by an insistence on registration of training programmes for double tax relief

He said the need to register programmes with the Department of Manpower tended to become their reason for existence, while few programmes offered commercially considered the measurement of actual job performance

Assessment of productivity gain or return on investment was not part of the package

Some companies were surprised that such assessments should be considered at all

Mr Viljoen said many training staff fell victim to the registration trap

"They saw their efficiency being measured in terms of the number of programmes they could have registered"

However, registration had had some positive aspects and there had been considerable improvement in standards of programmes derived from registration, especially in the skills-training area.

There had to be greater awareness of industrial engineering, organisation and methods and work study

Training of the work force in isolation would not achieve greater productivity, he said

Fear of sack is cutting output — Scheepers

By Kate McKinnell

The great fear among workers of becoming unemployed in these times of recession causes lowered productivity, says Dr Anna Scheepers, president of the the Garment Workers Union of South Africa

She was speaking on the employee's viewpoint on productivity at the seminar "Productivity — The Practical Implications" held by the Women's Bureau of South Africa in support of national productivity week.

Employees worry that if they increase their productivity, less labour will be required and they will join the queues of the unemployed, she said.

Workers should be shown that the lower costs caused by their increased productivity led to increased demand for the articles they made. This greater demand would secure their jobs and even increase employment.

She outlined three other causes of low productivity

- A lack of productivity conscious-

ness The public should be made aware of the need for greater productivity through the media and tactfully in the workplace

- Insufficient education and training for the whole population Management should provide more training to ensure greater productivity

- A lack of management skills Dr Scheepers ranked energetic and well-trained management as the first requirement for increased productivity

Dr Scheepers said mechanisation was a foolish solution to problems of low productivity as it would lead to economic, social and political problems in South Africa

She said the Government's policy of tackling inflation by reducing the money flow was regrettable as it reduced demand and forced factories to cut back on production

This caused unemployment and lowered productivity as employees dragged out their work to keep jobs going

Productivity: You can't have it

The many recent comments about South Africa's low level of productivity, and I agree there is room for improvement, makes me wonder if the "experts" on the subject really understand what productivity really is and if we should change how it's measured.

I am sure that all will agree, to put it simply, that productivity is measured by comparing output, i.e. goods and services manufactured or provided, to input, i.e. capital employed, management and labour etc

In South Africa, where direct and indirect labour cost are extremely low when compared to the United States, West Germany etc and management cost is also considerably less, it becomes more obvious that employment of capital is by far the

dominating factor in the equation.

Let's consider for example two companies in South Africa with the same facility, providing the same goods with the same labour force, with management using the same processes and systems with one operation at a level of activity 50 per cent of production capacity.

This one would be classified as unproductive, i.e. low output as compared to high input, high input being the fixed cost of land, buildings, plant and overheads, compared to the low level of sales

Let's consider the other working at capacity or near capacity its output would be much higher as compared with its input and would be considered by the experts as productive

As they bear no relevance to my example, I have conveniently, left

247
0.2 inputs
both
ways
16/8/84

BY R. D. OLIVETO
in a letter to the Editor of the Daily Dispatch

out any reference as to factory No 2 doing a proper marketing job or being given facilities to suit its level of activity.

I realise that is stating the matter in very simple terms but maybe it will make the experts realise that simply telling people to work harder, or management to employ some voodoo, will not increase productivity one iota in a depressed economy

Granted, management must always strive to improve efficiencies, cut cost and provide better training to staff and work force, but that is only

part of the answer

I base my argument on the situation that existed in the United States between 1976 and 1980, when the Carter Administration all but destroyed the nation's industrial output. Everyone was frantically saying the same things that US industry had lost its ability to be productive, and comparing productivity levels with the clever Japanese and their magical management skills (Who by the way happened to be working to capacity at the time and still are, but that's another story) Now that United

States industry is bursting at the seams, everyone is running round pounding their chests claiming remarkable improvements in productivity

True, there have been some real improvements in productivity in the US but these have been brought about by the employment of new, advanced, high technology manufacturing processes that can be justified over the high volume output and the extremely high cost of labour in the United States

South Africa is a long way away from justifying the capital required to go that route based on our low cost of labour and low unit volume production requirements to satisfy our market

However, that does not change the fact that it is utilisation of facility that determines productivity more than anything

else.

Bearing this in mind it puzzles me why everyone is telling the South African consumer to stop buying goods and services on one hand and on the other demanding that industry improve its productivity

You can't have it both ways, fellows!

I have spent a lifetime successfully improving manufacturing efficiencies in my chosen field by employing the best systems, procedures and facilities required for specific markets from high to low volume requirements

If someone can show me how to increase productivity when a factory is under-utilised, using the accepted measure for productivity, I will buy him or her a new Bentley

Of course if you tell me get rid of 50 per cent of the factory, the deal is off

S. Times
19/8/84

(247)

Focus on labour productivity

CAPITAL productivity in the construction industry declined annually by almost 7% and labour productivity by 0.6% a year in the 10 years to 1983.

The gross underuse of manhours has been cited by the National Productivity Institute (NPI) as the major reason for this poor performance.

With construction one of the biggest contributors to gross domestic product, the decline made a severe impact on SA's productivity levels which lag 5% behind those of the nation's major trading partners.

Attitudes

The industry is entering a period of consolidation and the spotlight will fall strongly on labour productivity, according to the NPI.

Low productivity can be ascribed to the attitudes of employees and managers. More than half the problem rests with unfavourable management attitudes, says the NPI.

Professor Richard Tucker, of the Construction Industry Institute (CII) in Texas, says only 20% of manhours are used effectively in putting a project together.

Research has shown that only 50% of workers' production capacity is used effectively. More than 40% of available manhours are lost through absenteeism, unfavourable weather, legitimate union activity and strikes.

Earnings

Construction costs have done little to improve the industry's capital productivity in the past 10 years. In recent years costs have risen by about 50% more than the inflation rate.

The NPI says unit labour costs in the construction industry increased by 173% between 1972 and 1982. Real earnings an employee, however, increased by only 8% in the 10 years.

Commenting on the US, Prof Tucker says "One of the biggest culprits of all is our educational system. Histori-

cally we failed in our engineering programmes to address subjects associated with construction productivity.

"With our increasing technological development, we have graduates with excellent skills in analysis and design, but with little knowledge of methods to turn designs into reality. Whereas much research has been carried out in materials handling and design methods, little activity has been devoted to research in construction and project management efforts."

Research by McKinsey & Company in the US has shown that 85% of variables affecting productivity are in the organisation and lie within the control of management.

These variables could be manipulated to the advantage of the business.

Machines

Exhibitors at this year's Interbau trade fair at Milner Park have taken cognisance of the productivity problems facing the industry. Machine displays will pay attention to productivity-related advantages.

A recent demonstration of the Gehl Skip Steer Loader to a construction company highlighted how this machine can contribute to productivity.

The various tasks included clearing boulders and building rubble, moving mud, spreading soil and backfilling a retaining wall.

The machine completed the task in under three hours. The machine's marketers says the task would have taken six workers six days to complete. The machine produced a saving in time of more than 80%.

Not only is the machine a productivity booster, it is designed to give the operator maximum safety under rough working conditions.

Pride

But for many managers, productivity improvement means little more than wringing more work out of a resource unit. Men and ma-

chines are expected to work harder, faster and longer. This is hailed as increased productivity and is recorded and measured with pride.

The emphasis remains on measurement, speed of workers and trucks or loaders operating under ideal conditions.

Productivity experts say there is more to productivity than trying to achieve maximum speed from workers and machines.

Challenge

Industrialised methods that retain traditional quality yet increase productivity will have to be found. The French building industry coped exceptionally well after the Second World War with the challenge of rebuilding.

It housed a population that increased by 10-million in 20 years by building 320 000 dwelling units a year between 1959 and 1963. This was increased to 415 000 units a year between 1964 and 1969 and to 500 000 a year in the past three years.

A spokesman for a group of French exhibitors at this year's Interbau Exhibition says "It is impossible to use traditional building methods to cope with current demand. Industrialised methods being used in France, which have been exported to many countries including the US, are proving successful."

"They virtually double productivity."

"In terms of workmen's wages they have reduced the time taken to build a three-bedroomed flat from 41 to 22 months and reduced costs by 20%."

SA ignores trusted productivity index

By Barry Sergeant

A 200-year-old management tool used widely by companies and governments in leading industrial nations is virtually unknown in South Africa.

Known as the Added Value Index (AVI), it is the most precise measure of productivity.

Added value is defined as "an increase in market value resulting from an alteration in a product or service's form, location or availability".

The index is calculated by dividing added value by cost of personnel or capital. The lower the index the better

R2m saving

George Taylor, a 72-year-old Johannesburg work study engineer, has found that AVI is barely used in South Africa. He applied the value added concept with success in Bulawayo for 41 years and at Johannesburg's Aberdare Cables, where he claims to have saved a net R2-million.

AVI's main application is in productivity as it gives a hands-on, instant measure of



George Taylor ... AVI hot gosseller

what value is added to a product or service at each stage of its handling in a business or industry.

The virtue of the value added concept is its simplicity. The formula takes account of sales, deducts their cost and divides the difference into wages to give the AVI. It can also be expressed as added value a rand of the employee payroll.

Work study engineers, can however, take the AVI concept much further than expressed here.

The AVI can be related to balance sheets, income statements and cash-flow profiles. It can be used for national accounts, conglomerates, tiny businesses and departments of a company — even a household budget.

Regardless of the kind of activity — railway, restaurant, hairdresser, mine or manufacturer of widgets — the added value index is comparable throughout industry.

British academic Geoff Smith writes in Value Added. "The fundamental economic

principle of wealth creation is that value is added to raw materials to create goods and services for customers and is the result of combining people's skill, time and energy with the use of tools, machines, buildings and money."

By definition, the AVI always falls between 0 and 1. The closer it is to 0, the more efficient the entity it is measuring. If the cost of sales equals wages, AVI equals 1, and the company is not making a profit.

AVI gives management a powerful tool for decision-making, and can also be used by trade unions to dispute, for example, that their productivity has declined. A trade union could use the index to prove that management's — and not the factory staff's — productivity has declined.

Cyclical

Mr Taylor says SA productivity conferences and other attempts to expose SA's "low" productivity use figures lacking contextual meaning. Cabinet ministers say SA must increase its productivity to be internationally competitive.

The statistics produced take no account of cyclical trends in the market, SA and foreign demand, effects of training programmes or installation of more effective machinery. AVI, by contrast, eliminates these imponderables and produces an instant figure which can be published for company and public consumption.

AVI's overall effect is one of suasion as company branches become more aware of their competitive role. There is more inter-company competition as one company becomes "top of the pops".

AVI can also be used to show that institutions maintained from a guaranteed budget — mainly government departments — are highly efficient or highly inefficient.

SA Brews fares well with AVI

ONE of South Africa's biggest and most efficient industrial companies is SA Breweries. Its main interests are in beverages, mainly beer, and retailing, hotels and manufacturing. It publishes a value added statement in its annual report, but does not extract an added value index.

The group's full financial disclosure, however, makes calculation of AVI easy. This is illustrated in the table and shows how SAB's AVI deteriorated from 0,326 in the 1983 financial year to March to 0,347 in 1984 — a sign of weakening economic conditions.

	Year to March	
	1984	1983
	R/millions	R/millions
Sales	4 815	4 342
Cost of materials	3 194	2 835
	1 621	1 507
Remuneration costs	563	492
Added value index		
1984 $563 \div 1 621 = 0,347$		
1983 $492 \div 1 507 = 0,326$		

tions.

Nevertheless, SAB's AVI is enviable by any industry standard. If SAB had, say, doubled its 1984 sales to R9 360-million, its AVI would

have been 0,088. Conversely, if its 1984 remuneration bill had doubled with sales at R4 815, its AVI would have been 0,695 — a relatively good AVI.

Sharing Some decisions boosts workers' output

A key ingredient to increasing productivity is the ability of line managers and supervisors to create a high performance environment that stimulates employees to achieve maximum output.

Many South African managers have progressed through the ranks and have not had enough training in the behavioural and technical methods necessary to create such an environment.

More effective training can correct this deficiency, however. If these methods are to be effective, the manager must have or adapt a set of positive beliefs and attitudes about the employees' motivation and desire to work.

The high performance manager

Alistair Wood, general manager of Man-dev Training (Pty) Ltd, continues his series on ways to improve productivity.

er believes strongly that the employee is basically ambitious, reliable and wants increased responsibility.

This manager believes a properly motivated worker is capable of directing many of his own efforts to achieve his own personal and professional goals as well as the goals of the company.

The high performance manager knows that achievement and recognition are key motivators for any employee.

He provides his workers with the reinforcement and appreciation to satisfy this need.

This management style places a premium on open communication with the employee — overcoming resistance to change, which is all too common when new ideas, systems or technologies are introduced.

The high performance manager involves the employee in change, rather than forcing it without warning.

He explains change in a way that the worker can see the benefit to himself and to the company.

This manager also seeks advice from employees on how to improve performance, knowing that a share in the change process will increase its acceptability.

The high performance manager does not abdicate his decision-making accountability — business is not a democracy — but rather recognises that workers are capable of intelligent input and making decisions in certain areas.

Unfortunately, many South African line managers hold negative expectations and beliefs about their employees.

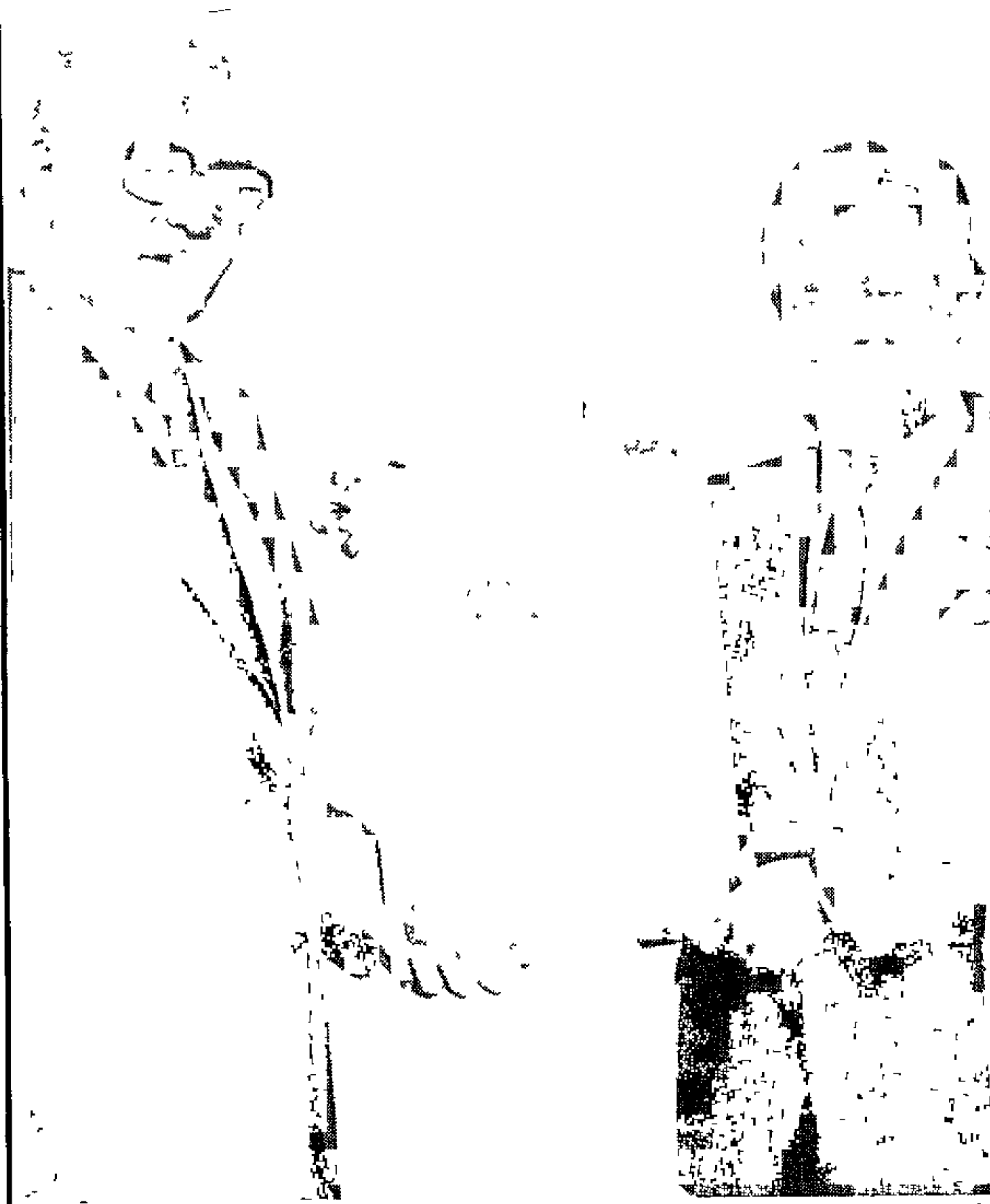
Many believe their workers are inherently lazy and unable to accomplish the simplest tasks without constant direction, controls and coercion.

Rather than involve employees, this manager isolates himself, and resorts to communicating only when new directives are necessary or when he catches them doing something wrong.

Positive reinforcement and appreciation is missing from this management style.

The result of these negative beliefs and expectations is a self-fulfilling prophecy of negative behaviour by the employee, including resentment, mistrust of management and low productivity levels.

Are your managers creating a high performance environment or are their negative beliefs about employees inhibiting high productivity in your organisation?



L&GV executive deputy chairman Desmond Krogh (left) and general manager administration James Boonzaier with the NPI productivity award

Work load rises 63%, but staff increases only 22%

(Handwritten: 247 S. Times 14/10/84)

LEGAL & General Volkskas, one of South Africa's top insurance companies, is the first in the industry to win a National Productivity Institute award. The award was granted in recognition of L&GV's successful scheme to save R3-million a year.

L&GV's recent record is spectacular. It increased its administration staff output by 63% in the two years to June 1983. As a result, the company handled a 67% increase in work load while increasing staff by only 22%.

L&GV's growth in work load meant that the drive to improve productivity did not result in redundancies or dismissals. All it meant was fewer new recruits — a total of 480 in a company with a salaried staff of about 1 000. The bottom line is R3-million a year saving.

James Boonzaier, general manager, administration, says in echoing management guru Peter Drucker: "Upgrading productivity levels involves more than simply working harder — working smarter is just as important."

L&GV's success story goes back to 1979

when it embarked on a major thrust to improve labour productivity. At the same time it launched an extensive computerisation and automation programme. As its major tool, management opted for the National Productivity Institute's Measurement of Administrative Productivity System (MAP), a simple and flexible work measurement package.

MAP focuses attention on group instead of individual performance. As a result, work teams emerged. As they did, so effectiveness improved significantly.

Mr Boonzaier says the aim is to achieve production to specification and to give customers a service product which meets their needs every time, but always at an appropriate price. Although labour productivity will continue to be improved, overall gains are now being achieved through computer systems coming on stream.

He believes that in a service industry, such as assurance, quality is as important as productivity. But unlike in the manufacturing sectors, it is intangible and consequently extremely difficult to measure.

Argus 8/12/84 (247) (18)

SA warned to streamline productivity

Reports By ROBIN BROWN
Weekend Argus Reporter

RAISING wages in South Africa without dramatically increasing man-hour output could send the rand down to 38 cents, warns Mr Philip Krawitz, president of the Chamber of Commerce

"Our manufacturers are far down the list of world producers when it comes to productivity and will feel the pinch if we are to compete with the rest of the world's manufacturing countries

"The country cannot afford increasing wages unless a concerted effort is made to lower the price per manufactured item," he said

The South African clothing industry recently announced a 34-percent wage increase — against a 1,68 percent increase in the United States

"A good example is a shirt produced in America for \$10, which we produce at R20 to be able to compete

"Add the 1,68 percent wage increase in the States and the price goes to \$10,17

"Our 34-percent wage bill increase pushes the manufactured price to R26,80, and to be able to compete and

to sell it for \$10,17 the rand has to be devalued to about 38 cents"

A large local clothing manufacturer has increased staff wages, cut down on manpower and has demanded the same output

"He is doing well because he can compete and is signing orders throughout the world"

Added to the bleak picture is the price of imported goods while the rand depreciates

Last year, when the rand was valued at 90c, an item costing \$1 in America cost South African importers R1,11

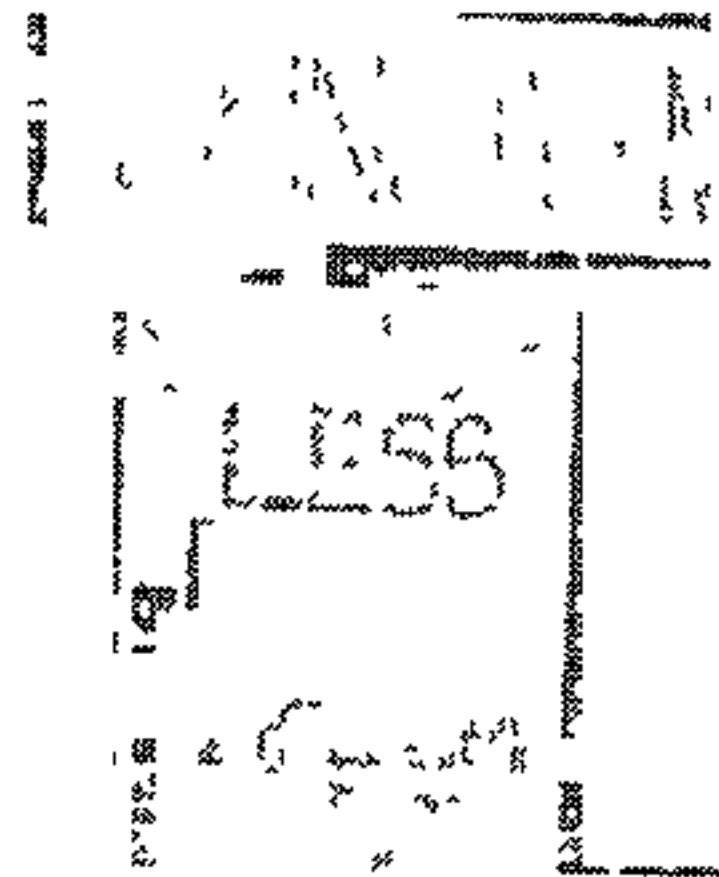
The same item now costs R1,87 — an increase of 68,47 percent

If the item increases by 10 percent in the United States to \$1,10 it would cost R2,06 here — an increase of 86 percent,

Mr Krawitz said "Importers are also caught in a tight situation. They can stop importing, and with no goods they cannot operate

"There is customer resistance to the higher prices, and high interest rates push their debt up

"The only solution is to formulate a better marketing strategy, find markets where the goods are cheaper and prove to the customers that the goods are top quality and worth the increase"



Pictures CHRIS MATUSZEK, The Argus

... and many city companies expected to fold in the new year

MANY Cape Town companies are facing a gloomy Christmas and many more will fold in the new year, says Mr David Waters, a Cape Town liquidator

firm's credit. They allow the firm to keep trading for six months or more, make a big killing, then watch it fold," he said

According to statistics recorded by

8/14/84

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Argus

More than two liquidations a day are being recorded in the Supreme Court, Cape Town

"Company and private sequestrations in Cape Town have risen by 121 percent in November this year compared with the same period last year," said Mr Waters

In November there were 73 private and company liquidations in the city, compared with 33 last year

"Small businesses and individuals are being hardest hit, but I predict that many bigger fish will crash early next year

"Anyone who thinks that the worst is over will be disillusioned, because after Christmas there will be no cash flow and many people will crash

Christmas

"February and March will be the telling months, because many firms will manage only to survive Christmas before closing up

"Quite a few building contractors will have to pack up because consumers are not buying new houses," he said

Several liquidators say they cannot understand how finance companies keep granting firms finance without checking the state of their books

"It seems that many suppliers in South Africa do not bother to check a

the debt controlling firm of Dun and Bradstreet in Johannesburg, the number of company liquidations recorded in South Africa during the last bad recession of 1977/78 was 1 343, compared with a predicted total this year of about 2 808 — an increase of 108 percent

"Up until August this year, before the Government applied stringent brakes to economic spending, 1 909 companies were liquidated," said Mr Alan Mankoff, managing director of the company

"Big crunch"

"The big crunch is still to come and the first six months of next year will be very hard

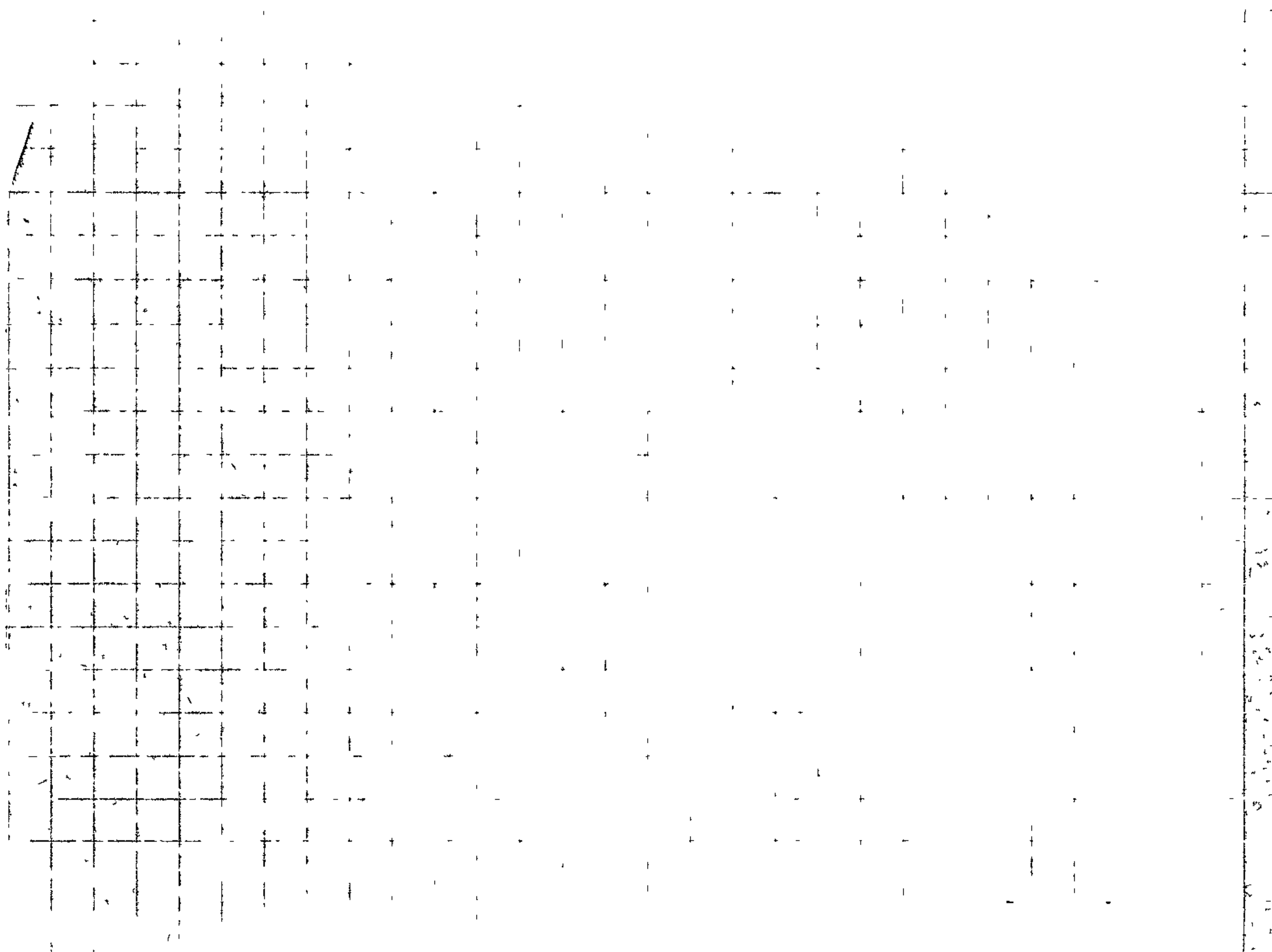
"Interest rates are high, consumers cannot spend freely and the Government has announced no public sector salary increases for 1985.

"The accumulated result is very gloomy for firms"

However, he added that companies which survived the first six months of next year would come out tougher and ready to grow rapidly in the upturn

"At present the only way to survive is to be prudent, tough on credit control, collect all outstanding debts and treat all old accounts like new ones"

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Cronje's Assembly swansong

Political Correspondent

CAPE TOWN — The Deputy Minister of Home Affairs and National Education, Mr Pierre Cronje, yesterday made his swansong in the House of Assembly

He retired from active politics from midnight last night in terms of a recent statement that he wished to devote more time to his family.

He wished MPs "only the best" to echoes of "hear, hear"

● Mr Cronje vacates the Port Natal seat which could see a four or even five-way parliamentary by-election fight later this year

Unrest blamed for lower productivity

By CATHY SCHNELL

THE effect the current unrest was having on industry in the Eastern Cape would probably get worse before it got any better, Dr Jan Visser, president of the National Productivity Institute of South Africa, said last night

Addressing a conference at the Midland Chamber of Industries on improving productivity, Dr Visser outlined the problems faced by industries and how they could be overcome

Five major problems hindering productivity, he said, were racial conflict, the population growth, job creation, inflation and

the lack of adequately skilled manpower

He said the racial problems — with regard to unrest — would probably get a lot worse before they got better. He urged that there should be a more equal distribution of income between the white workers (the haves) and the black workers (the have nots)

The workplace was generally the only place where different race groups ever met in South Africa. Consequently it was vital that employees were linked in a common goal — to strive towards increased productivity. This would ensure unified loyalty to the company

and a comradeship

Dr Visser said poverty went hand in hand with a high birth rate. An increase in the standard of living invariably resulted in a decline in the birth rate

Commenting on the shortage of skilled labour, Dr Visser said the problem was so acute he "almost feared the economic upswing"

There was a shortage of skilled labour right now — in a recession

"When the economic upswing occurs, this shortage will be so much worse," he said

The Mayor of Port Elizabeth, Mr Ivan Krige,

opened the congress. He said the position in the Eastern Cape, with its appalling high rate of unemployment, was a lot worse than elsewhere in the country

He called for an improvement in living standards, especially of the black population. High rates of inflation had put the cost of nearly everything — including items essential to stay alive — practically beyond the reach of people in the lower earning groups

"South Africa must rank extremely low with regard to productivity compared to the rest of the world," Mr Krige said. Dr George Marr, man-

aging director of Western Province Preserving Company, said his company had managed to improve productivity by

- Prevention of waste
- Better maintenance
- Better transport facilities
- Improved quality control

He also suggested that management offer a bonus to workers who came up with good ideas on how to increase productivity

Dr Marr emphasised the need to train management

"If you are not going to train at the top, there is no point in training anybody else," he said

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10pc increase for municipal employees

Dispatch Reporter
EAST LONDON — The municipality's 2 500 staff members are scheduled to receive 10 per cent wage hikes

This was revealed in the estimates tabled at a special city council meeting last night

But the increases are to be phased in. Staff will receive a five per cent increase from July 1 with the other five per cent coming into effect from January 1, 1987

The actual payment of the increases depends on the outcome of a report on productivity to be compiled by the director of management services and the outcome of a court case involving the municipality and the East London branch of the South African Association of Municipal Employees (SAAME)

The Industrial Court is to give a ruling soon on the dispute in which the SAAME wants the municipality to extend the subsidies to people who rent houses and not only to people who have bought houses

The estimated cost to the municipality if the court rules in favour of SAAME is R250 000 a year.

In his budget speech last night, Mr. Errol Spring, made an urgent plea for productivity to be improved, for maximum benefit to be achieved from staff training programmes and for the National Institute of Productivity (NPI) report on the municipal structure to be implemented immediately.

"I must express my disappointment at the lack of progress made in implementing this report. Maybe we are expecting too much from

our town clerk in looking to him to restructure the organisation and implement the recommendations in addition to his normal load of work

"If this is so, the council should consider as a matter of urgency appointing an outsider on a contract basis to implement the NPI recommendations. I believe there are suitable retired industrialists and businessmen in East London who could be persuaded to tackle this on our behalf."

Mr Spring said staff was the major portion of the council's operating costs and, in the endeavour to give the staff the best possible deal, the council should ensure that it was not at the expense of the ratepayer.

"The council must strive aggressively to improve productivity and ensure a maximum return on money spent. To achieve this, managers from heads of departments down have been put through management training programmes. Considerable amounts have been included in the estimates for staff training."

In order to achieve maximum benefits, he had asked for quarterly training progress reports.

(247) B. Day 24/6/85

Engineer comes up with a worker value formula

INDIVIDUAL workers' productivity can be stepped up by using a simple formula which can determine an employee's value.

The index expresses worker activity in economic terms — providing management with an effective tool from which to judge individual output.

The Added Value Index (AVI) was developed nearly 200 years ago and today it is the standard index used to measure Britain's productivity.

Campaigning for the introduction of the AVI on a national scale is a Johannesburg work-study engineer, George Taylor. "Unless a business concern employs measures which are meaningful for itself and for others in the same business, it is in no position to assess its present or its potential level of efficiency," he said.

The AVI is determined by dividing the total personnel costs by the total of nett sales less the cost of materials in use. This calculation gives an index be-

By CHERILYN IRETON

tween 0 and 1. The lower the index, the more productive the individual.

"Measures are needed to quickly highlight inefficiencies within organisations and their constituent departments so that remedial action can be taken," Taylor says.

"The AVI concept can be used as a basis from which to reward employees. When a worker or a union asks for a salary increase, management can determine whether the worker's productivity actually warrants a pay rise."

Taylor is trying to lobby official support for the index and will meet with the officials from the Department of Manpower later this month.

"Added Value is not something new, but for some reason it has been overlooked in South Africa," he said.

He maintains he is not trying to change the work being handled by the National Productivity Institute.

Anyone for chess?

Management complaints about the low productivity levels of SA workers become more strident by the day as companies struggle to stay afloat in the recession. But besides admonishing employees to work harder, few companies have constructive suggestions to make about techniques to improve productivity.

Productivity Enterprises (PE), a division of P-E Corporate Services SA, is marketing a device — the Checkmate — which it claims can help production line workers. The Checkmate is a battery powered unit which allows its operators to set a target time required for an operation and measure their performance against it.

PE manager Llewellyn Roberts says this simple checking process can result in individual productivity improvements of between 10% and 50%. Obviously other factors like production systems and material flow also affect production. So, Roberts claims, factories can expect overall productivity to rise by between 5% to 20% if they use the Checkmate wisely.

PE has the SA franchise for the Checkmate which was developed six years ago in Scotland by Eildon Electronics. Other franchises are held in the USA, Japan and Hong Kong.

Says Roberts "When managements start looking to improve productivity they often become involved in systems which involve major expenditure and major cultural changes. Many systems also tend to be management based. The Checkmate is cheap, very cost effective and yields results that are as good — and in many cases better — than those from a systemic approach to productivity. The Checkmate focuses the attention on employees and helps them control their own

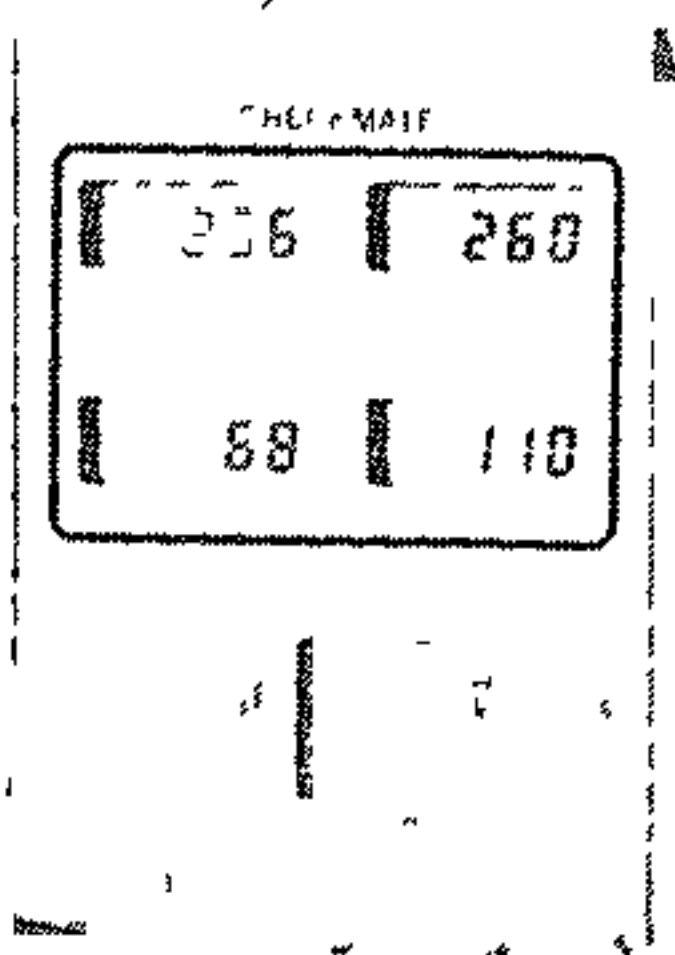
Financial Mail May 24 1985

destinies "

PE recommends that the unit, which costs R600, should be shared between six workers who use it for two-week periods. This gives workers the opportunity to become accustomed to the pace, timing and sequence of an operation.

"The psychological aspect is important," says Roberts, "because you are showing workers what they are doing from second to second. Once they reach their target their perception of their abilities improves. Workers also eventually start to believe in the targets set by management because they can see that they can do it."

Reaction from managements who are using the Checkmate is favourable. Says Frans Fremouw, assistant director of Bosal which is using the unit at its three Rosslyn plants



"It works. The main advantage is that it gives immediate feedback on performance and lost time to both operators and management."

So much for management's view of the Checkmate. What do unions think of it? Bosal is busy negotiating a recognition agreement with the United Mining, Metal and Allied Workers of SA. "So far there has been no adverse reaction — the guys seem to like it," Fremouw tells the FM.

"Everything depends on how it is introduced," says Roberts. "It is imperative that unions, operators and supervisors are involved. Agreement must be reached on the standard time for operations and the Checkmate must be sold to workers as something which will help them work at an even pace. We recommend that management starts off with volunteers."

Firms attacked for ignoring incentive to train employees

ARGUS 2/7/85 (1) (2) (3) 247

Argus Correspondent

JOHANNESBURG. — The Deputy-Minister of Home Affairs, Mr R B Miller, has criticised employers who fail to use the financial incentive offered by the Government for worker training during the slump.

He called on employers to train employees on a rotational basis rather than retrench them because

of the recession.

"The favourable financial incentives on approved training, which enable employers to recoup 87,5 percent of their training costs in designated industrial development areas and 75 percent in other areas, are unfortunately not being fully utilised by employers to train their workers during the present lean period

"Employers would do well to contribute to the up-

grading of the skills of workers, especially those at the lower levels, by training them on a rotation basis rather than retrenching them," Mr Miller told a conference at the Rand Afrikaans University.

The apparent practice by some employers to increase their staff training during boom periods and reduce it in periods of economic downswing had resulted in a shortage of qualified artisans in times of high demand and unemployment in slack periods.

South Africa had to aim at a future yearly economic growth rate of six percent.

Relationship

The State had accepted the responsibility of creating an institutional environment in which the training relationship between the employer and his employees could flourish to their joint benefit.

During 1984, he said, 548 000 people underwent in-service training in courses approved by the Department of Manpower, which was an increase of 43 000 on the 1983 total.

He hoped that the trend would continue in 1985 in spite of the downturn in the economy.

New body for farm training

ARGUS 2/7/85 (1) (2) (3)

Argus Correspondent

PRETORIA. — The South African Agricultural Union has announced the establishment of a body to co-ordinate the training of farm workers.

The Association for the Co-ordination of Training in Agriculture, with the president of the Transvaal Agricultural Union, Mr Nico Kotze, as chairman, will act as a forum through

which various manpower development interests in agriculture can be co-ordinated.

Mr Kotze said the the Department of Manpower had been searching for years for an objective body to advise it on training priorities in agriculture.

Such advice would help the Government to determine which training institutions should be supported financially

Barend: Productivity key solution for SA

SOUTH AFRICA would have to produce itself out of the economic mire "that we have been in for too long", Finance Minister Barend du Plessis said in Johannesburg last night.

At the presentation of the National Productivity Award, Du Plessis said the prime solution to the South African dilemma lay in enhanced productivity.

He said excess demand and lack of productivity unleashed further inflationary pressures — a problem which was still the weak link in the economy.

Government's reaction had been to introduce the austerity measures

GERALD REILLY

which had begun paying dividends

"We simply had to break the cycle of excess demand in the economy. Pursued over the longer term, however, the measures were bound to cause hardship".

Du Plessis said economic growth would have to come mainly from an increase in the export of manufactured goods or imports substitution. It was difficult, he stressed, to gen-

erate profits by merely raising prices. To export, the right product had to be provided at the right time and price in the right place.

To achieve this, every effort would have to be aimed at raising productivity.

Competitiveness, which was determined by productivity, was all-important.

A fact which had to be faced about the productivity dilemma was that the responsibility for productivity

improvement rested with management and nowhere else.

"If we compete successfully, we will generate wealth, economic growth and job opportunities."

Du Plessis said there was a tendency to ignore the relationship, between the rate of growth in wages and the weight of growth in productivity.

The bigger the gap, the bigger the cost-push element of inflation.

He appealed to everyone dealing with wage demands to exercise con-

straint and to introduce productivity into the bargaining process.

Du Plessis said the economy had been at a low level for a long time and a spirit of despair had begun to show.

A low conjuncture phase meant unemployment. This had led to aggressive discontent with economic conditions and with the "existing system".

Expression of discontent led naturally to unrest, which, in turn, had a negative impact on the economy.

Shift seen to more labour

FRED STIGLINGH

SOUTH Africa may be swinging towards a more labour-intensive economy, says Jan Visser, executive director of the National Productivity Institute.

He says in his 1984/5 annual report that fixed capital increases last year were the lowest in 10 years.

Although this was influenced by high interest rates and recessionary conditions, the slow-down could be seen as a swing to a more labour-intensive economy — "a positive development for employment creation".

"Whether or not this trend will continue depends on the relative cost of labour and capital," Visser says. "Excessive wage increases would not only ruin efforts at reducing inflation and improving competitiveness, they would render employment growth prohibitive."

Visser sees reduction of SA's inflation rate as an urgent economic and social priority. Productivity improvement, however, is not the only solution.

Policies aimed at restraining total expenditure are not particularly successful because they are less relevant for the type of inflation problem SA is experiencing, he says.

The current inflation problem, he says, has little to do with excessive demand. In many instances, prices are increased because demand has dropped.

Productivity lifted by unemployment

By Amrit Manga

LABOUR productivity in the manufacturing sector increased by more than 3% in 1984 after declines of 0,3% in 1983 and 0,9% in 1982

This is shown in the National Productivity Institute's 1984/85 report

The NPI says "The significant rise must be seen as a combination of an increase in manufacturing output of 3,1% and a moderate decline in employment of 0,2% "

Diminished

It warns that productivity improvements should not be pursued at the expense of employment

NPI executive director Jan Visser says "The gain in labour productivity is greatly diminished when accompanied by declining employment "

The NPI report puts the reduction in employment in the manufacturing sector at 0,2% — a loss of about 3 300 jobs

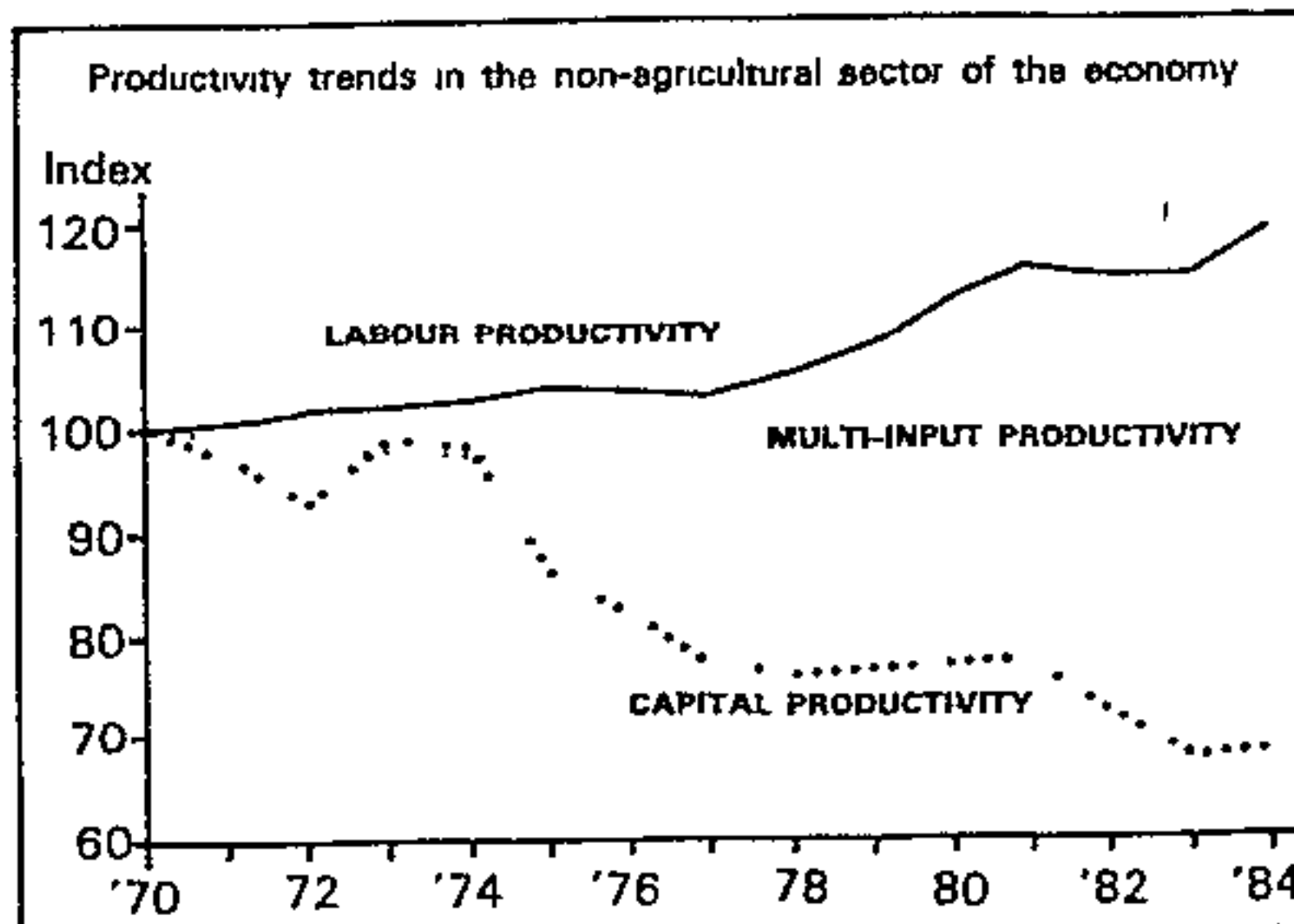
NPI economics manager Roelf du Plooy says "The trend will certainly not be repeated this year. Retrenchment patterns are expected to start levelling off, but manufacturing output and unit labour costs are likely to remain the same, if not deteriorate "

Capital

But last year's increase, described as significant, is no reason to be optimistic

Preliminary labour productivity estimates show a decline to minus 1,8% for the year to the first quarter of 1985

A moderate decline in the



second half of last year and a sharp fall in the first half of this year could depress productivity performance even further

The lower rate of increase in capital productivity and declining employment eroded some of the gains made by labour productivity. Multi-input productivity as a result was recorded at 2,5%

Multi-input productivity reflects the amount of labour and capital used for a unit of production

The report says "The slow rate of increase in capital productivity may be seen as a swing to labour-intensive

production techniques" It could signal growth in the number of jobs in the long term

"But excessive wage demands will prohibit any significant increase in employment," says the NPI

High wage demands will add to downward pressure on labour productivity improvements

Dr Visser says "Wage claims are based on expectations about the inflation rate. It is naive to expect workers to accept wage increases equal to or lower than productivity growth rates "

Incentive pay — the way to productivity

247
22/9/85 S. Times

By Phillip Minnaar, a Johannesburg management consultant

NOBODY denies that incentives can work wonders.

In Western Europe, individual incentive payments are a way of life, and the leaf pickers on the tea plantations in India are all on piece-work. Commission for salesmen is acceptable everywhere.

But most South African industrialists ignore the dramatic effects incentives can achieve at a time when low productivity has become a national emergency.

In a well-organised factory, under close and competent supervision, the average manual productivity could be as high as 50 units an hour, measured in terms of saleable products. More commonly it would be about 45 or lower.

But under incentive conditions, 75 to 80 units an hour can be achieved.

In a factory employing 100 workers at R3 an hour, an increase in the productivity from 45 to 47 units an hour would mean a saving in direct wages alone of R2 500 a month — enough to pay for a competent work study person, who would be needed to administer an incentive scheme.

Phillip Minnaar... spin-offs and more from incentives

Under the scheme, each worker's daily pay is increased in proportion to the extent by which his productivity exceeds 60 an hour for that day. This means that the company benefits by the climb from 45 to 60. Beyond that, all savings are paid in bonuses.

If the average productivity stabilises at 75, this small factory of 100 workers would save in direct wages R14 625 a month, less R2 500 for the work study person. The workers would receive an effective increment of 25%. These increased wages place less, not more, strain on a company's cash resources.

Then there are spin-offs

- Better quality control is possible, a bonus is paid only for good work
- More detailed and reliable management information from the shop floor. Accurate reports of production and individual worker productivity which cannot be achieved without the discipline imposed by incentives
- Improved production planning is possible because output is more stable
- Accurate and more reliable costing information
- Weekly verification of actual labour costs an article for comparison with standard
- A more contented and stable work force
- Built-in alarm signals. A worker's productivity falling below 60 points indicates a breakdown in shop-floor organisation or in human relations
- Elimination of overtime.
- More economic use of plant and equipment and of all overheads, particularly if the additional capacity can be used to increase production.

Tailored

However, an incentive scheme calls for great care in its design and implementation. It must be tailor made for each application, and there are more than 20 rules

that must be applied to ensure success. A hastily conceived ad hoc system without proper standards is bound to fail. A failed incentive scheme is disastrous, leaving the company in a worse position than before.

One of the reasons given in SA for not adopting incentives is that they are not a substitute for good management.

Automation

Like the computer, it must be seen as an aid, never a substitute, for management. As Peter, of Peter Principle fame, said of the computer: "If you apply it to disorganised management, it only makes the mess happen more quickly."

Another reason given is the degree of automation in SA — productivity no longer rests with humans. There speaks ignorance. Unless there is completely automated manufacture — from which we are still decades away, and is a questionable goal for us in any case — humans still determine the productivity of machines.

In a typical case in a shoe factory, incentives increased productivity by 65% although the operation cycle was 82% machine controlled.

Slowly

The point is that the pre-incentive low productivity was caused by workers working slowly; the natural working pace is about 75 units an hour. They worked slowly because of constant interruptions, and a lack of urgency to resume production.

This applies no less to operators of automatic machines. Incentives will have a less dramatic effect on productivity, but with an expensive or key machine the significance for the company could be even greater.

There is no reason why SA industry cannot grasp the benefits of incentives. It has never been needed more than now.

Economic downturn is crippling the country's construction

The South African construction industry, struggling under the severest recession ever, faces a staggering R3 billion loss over the next five years, if the Government persists in holding back vital volumes of work.

This was said by Mr Ed Wilson, managing director of Group Five company CMGM (North) at the opening of a new pumping station at Galeshewe, near Kimberley by Mr Piet Badenhorst, Deputy Minister of Constitutional Development and Planning.

"I urge the Government not to regard this problem as something that can be shelved or left to find its own solution," said Mr Wilson, whose company built the station.

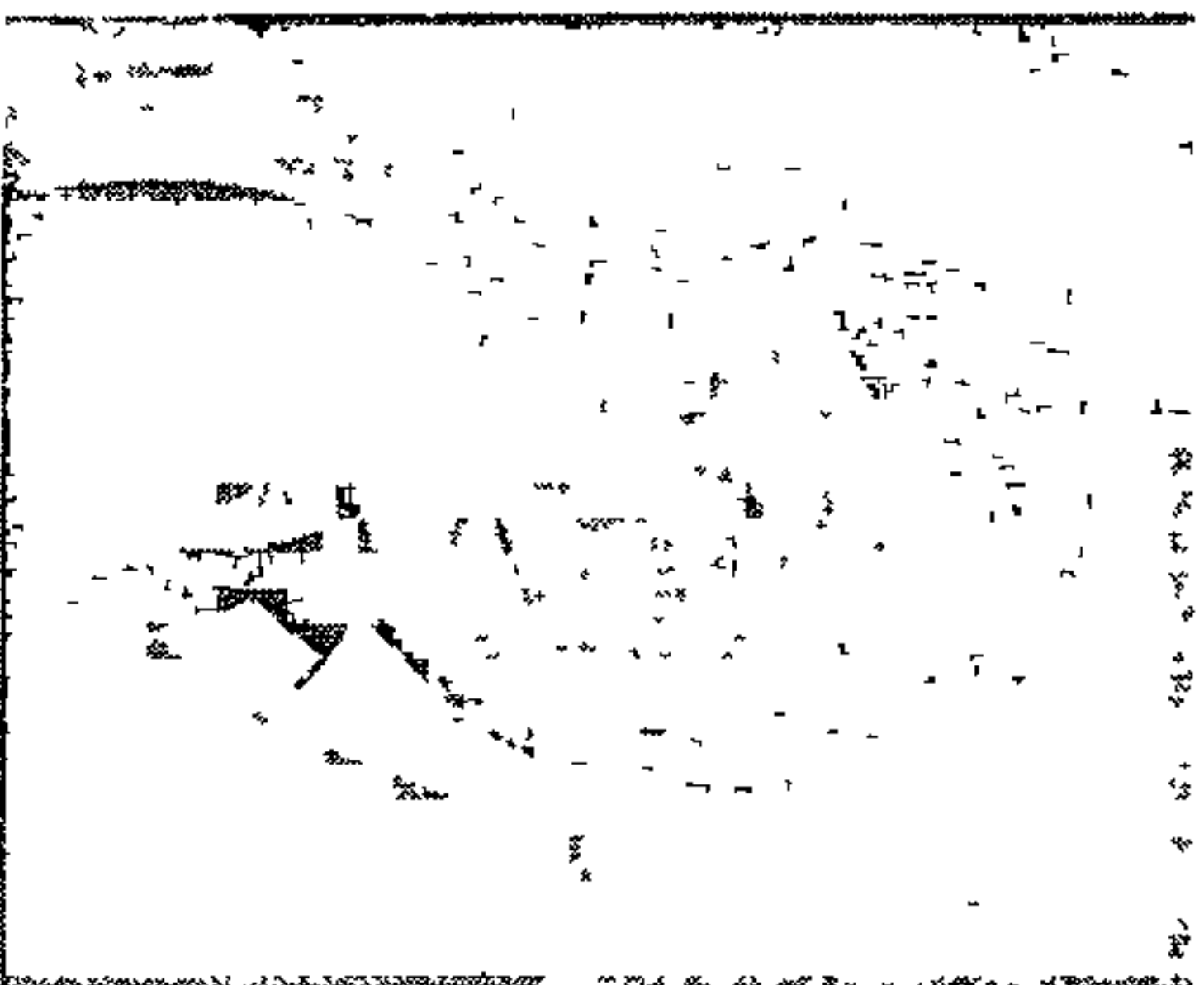
"If something is not done now to improve the situation, then the loss of essential personnel, the selling off of plant and equipment, indeed the weakening of the operational core of some of the country's major contractors, must inevitably follow."

"Even in a recession, can we afford to see our construction industry crippled in this way?"

The shortage of work has already forced many closures, while the companies that remained are showing big drops in profits. On top of this was the continuing menace of retrenchment of highly qualified people.

"Replacing them will be difficult and expensive," said Mr Wilson. "Without them, construction companies will have difficulty in being fully operational to take advantage of the upturn when it comes."

The remedy, Mr Wilson believes, lies



Ed Wilson — Can the country afford a crippled construction industry?

in forward planning and making use of a downturn to get certain essential infrastructure work done when there is more construction capacity available and prices are keener.

This would have two inestimable advantages. Firstly, it would provide work for many unskilled people coming on to the market for the first time and secondly, it would keep the construction industry viable and healthy and avoid "a great deal of misery for trained people who depend on it for their livelihood."

Productivity

By Frank Jeans

How many bricks can a "brickie" lay in a day? It's a simple question in which lies the crux of a major problem in the construction industry today — low productivity levels.

At a recent symposium in Pretoria organised by the National Productivity Institute, industry leaders looked at programmes aimed at overcoming the chronic output situation which, along with the effects of the present recession, is "crippling South African construction" and which affects everyone who wants a new house or wants to expand a business.

Labour productivity over the entire spectrum of building and construction has improved by a meagre 2,25 percent a year since 1978 and when capital productivity is also taken into account the overall rate goes into decline.

Indeed, the output rate for civil engineering in the private sector has been falling by two percent a year.

This particular situation, however, should be seen against the dramatic workforce fluctuations in the "civils" sector which only aggravate the productivity problem.

In 1973, the labour force in civil engineering was 95 000, while by 1976, the figure was 135 000. Recessionary effects have now brought the numbers back down to 90 000 and employment rates are still heading down.

There was consensus among speakers at the symposium that responsibility for productivity lies with line management and as Dr Zach de Beer, chairman of LTA pointed out in his opening address "Motivation matters more than muscle."

Problem areas

Pinpointing problem areas on site and the implementation of a productivity programme at a University of the North contract, Mr R Basson, contracts manager of Murray & Roberts Engineering (TVI and OFS) said "We soon found out that there were tremendous differences in the daily production between bricklayers."

"The figures varied from as low as 150 bricks a day to plus minus 400 bricks a day."

"We further discovered that some of the higher paid bricklayers were also

responsible for the lowest daily production."

Mr Basson's team also revealed there was very little forward planning of the labour force which, after completing an activity, would "come to standstill before being told where to next."

When they did eventually reach the next work station, however, there were no materials pre-stacked and the workers had the wrong tools and equipment.

"In some cases, we could only succeed with new equipment by totally moving all the old stuff from the site," said Mr Basson.

"Once the workers realised that the new techniques worked not only fast and easier but with better financial results, they went 'boots and all' for a new system."

The results? A well-motivated workforce on site because of a change in the attitude of the supervision.

"Previously, workers were ordered from the top only and were not motivated by this action. Some of the orders now originate from within the labour force itself," said Mr Basson.

Economic downturn is crippling the country's construction industry



Wilson — Can the country afford a crippled construction industry?

Productivity paradox

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Mr HJ Goodman, head of the productivity department of Group Five company, CMGM, referred to the attitude of several workers towards their jobs, their superiors and their work method

"To the workers a job was just a job as long as they received their wages at the end of the fortnight," he said

"We began a course aimed at increasing the understanding, especially among the economically unsophisticated, of how a business operates

"People are told what they can do to help the company to do well

"So far, the feedback from sites has been positive and awareness of job continuity and opportunities for advancement has increased"

Also on the "bricke" beat, Mr Goodman told delegates that a test was conducted to establish whether a man could lay 4 000 bricks a day

"At his first attempt, a selected bricklayer laid 4 064 bricks in 10 hours 11 minutes.

"The staff of a large site then decided to attempt to break this record. At his first attempt, the contender laid 4 077 bricks in 8 hours 38 minutes"

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The economy is not just in a short-term recession. It is trapped in a long-term crisis, and the usual methods for pulling an economy out of a recession may not be sufficient.

To come to grips with the root cause of the crisis one first needs to clarify the nature of SA's current growth strategy. This strategy is export-oriented - that is, growth is not so much based on development of the local market as it is on expanding overseas exports. The importance of this is that the issue of our international competitiveness becomes of paramount importance.

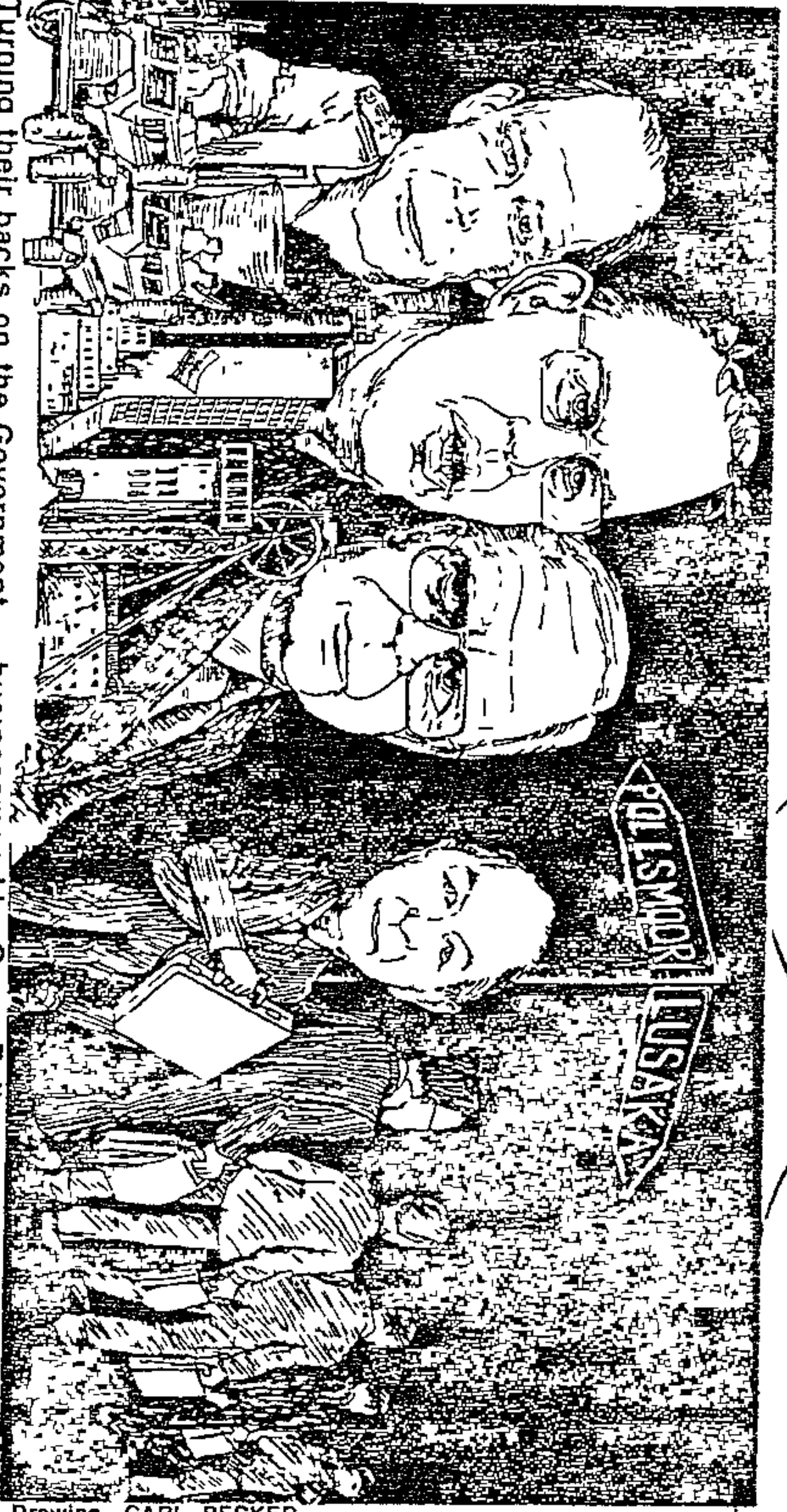
Although our mining and agricultural products are sold abroad, for a variety of reasons South African industry is in general not competitive with overseas industries. Consequently, our manufactured goods are unable to make major inroads into overseas markets, nor can they even hold their own against imports on the local market.

In order to compete more effectively, industry is forced to import foreign technologies. But since these are massively expensive, every growth phase or boom rapidly produces a soaring import bill which pushes the Balance of Payments into deficit.

In the recent past the state has sought to extend the booms by increasing our foreign borrowing, but this has in turn increased our foreign debt, which today stands at a massive \$24,000-million - or about R55,000-million.

Given the state's commitment to export-oriented growth, the only long-term way out of the crisis is to improve labour productivity so as to enhance our competitiveness. (Other "solutions" such as imposing import controls, are only effective over the short-term.)

There are in fact a number of ways productivity can be raised, but all of them involve confronting the labour movement in one way or another.



Turning their backs on the Government ... businessmen like Gavin Relfy, centre, make their own plans now. At left, Magnus Malan, PW Botha and Gerhardt de Kock.

Perils of the productivity recipe for ending the crisis

First, any escalation of conflict between workers and management is likely to lead to state involvement.

Second, because the state directs the course of economic growth, it is able to use this power for political ends. Though one can argue that this recession was forced on the state, the severity of the recession is largely state-induced. For example, the decision last year to let the Rand plummet, as well as the decision to raise interest rates to record levels, were taken by the Reserve Bank in consultation with the Minister of Finance and, through him, the Cabinet.

One of the major effects of this severe recession has been...

If this country is ever to pull out of the recession, the very basis of our economic strategy will have to be re-examined. By DUNCAN INNES, senior lecturer in the Department of Sociology at the University of the Witwatersrand.

Townships are in uproar and education and training disrupted, major productivity improvements are just not possible.

The importance of these political factors has been rammed home forcefully to us over the past few months. Overseas media coverage of state repression, coupled with...

fact, one can see already the beginning of a strategy emerging. For one thing, all sectors are not equally affected by the crisis. The export-oriented mining industry, for example, is currently experiencing a boom while many financial institutions have benefited from high interest rates. What, then, will happen to the profits that are being accumulated in these sectors?

It is possible, given the shortage of capital in industry, that much of it will be diverted into this latter sector. This is likely to produce yet another wave of take-overs as ever more industrial, retail and commercial companies become absorbed by the giant mining houses and financial institutions. (The Kirsch group's recent takeover by Sanlam was but the first of these.)

But, of course, such domination offers one of the most promising routes for business to resolve the productivity issue at an economic level. For it is the giant conglomerates which are best capable of rationalising methods of production and of mechanising and automating production. Not only are they the only companies with the financial resources to carry this through, but many of them have the overseas contacts to secure the necessary technologies.

But if this route is adopted then we can expect on the one hand even greater centralised control over the economy and, on the other, even greater unemployment.

As far as the political aspects of the crisis are concerned, representatives of some of these large conglomerates and their supporters have already served notice on the state that they are no longer prepared to sit back and watch Rome burn. They are becoming directly involved in the process of political restructuring.

But the question here is are these business leaders willing to demand the kind of political reforms which are

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In order to compete more effectively, industry is forced to import foreign technologies. But since these are massively expensive, every growth phase or boom rapidly produces a soaring import bill which pushes the Balance of Payments into deficit.

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Given the state's commitment to export-oriented growth, the only long-term way out of the crisis is to improve labour productivity so as to enhance our competitiveness (Other "solutions" such as imposing import controls are only effective over the short-term)

There are in fact a number of ways productivity can be raised, but all of them involve confronting the labour movement in one way or another.

Management can mechanise their factories—but the cost is rising levels of unemployment. Management can retrench a portion of the workers while retaining output levels and existing wage rates—but the cost is both more unemployment and resentment among those who remain in the factories and must now work harder. Management can offer higher pay for harder work—but this is costly

Thus the issue of raising productivity inevitably leads to a confrontation of one sort or another with the labour movement

Furthermore, the issue of productivity is not simply economic, it has an important political dimension too.



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One of the major effects of this severe recession has been massive retrenchments. The state's management of the recession can thus be seen as an attack on the labour movement—especially on the organised section, who are forced onto the defensive. By weakening the organised labour movement, the state hopes to pave the way for management to introduce productivity improvements

Thirdly, the economy exists within a political environment and cannot escape the conditions of that environment. It thus becomes extremely difficult to organise productivity advances in a context of political turmoil. So long as the country experiences widespread political and industrial strikes, so long as transport is disrupted, so long as the

If this country is ever to pull out of the recession, the very basis of our economic strategy will have to be re-examined. By DUNCAN INNES, senior lecturer in the Department of Sociology at the University of the Witwatersrand

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The importance of these political factors has been rammed home forcefully to us over the past few months. Overseas media coverage of state repression, coupled with numerous diplomatic blunders by government leaders, caused overseas bankers to take fright. Fearing that their investments here were in danger, they called in the bulk of their loans—and SA could not pay. Consequently, the Minister of

Finance was forced, first, to unilaterally suspend our foreign debt repayments for a period of four months and then, in order to discourage foreign-owned capital from leaving the country, to reintroduce the financial rand

Of course, these measures have in no way alleviated the crisis, on the contrary, they have worsened it. Having unilaterally suspended our debt repayments the state has severely damaged our international credibility. Consequently, we will encounter great problems in trying to raise new finance, which is so necessary to our growth, from overseas sources

Thus for a wide variety of reasons—both political and economic—the prospects for the economy producing a sustained upswing in the near future are very bleak indeed

However, that does not mean that business leaders see no opportunities for a possible way out of the crisis. In

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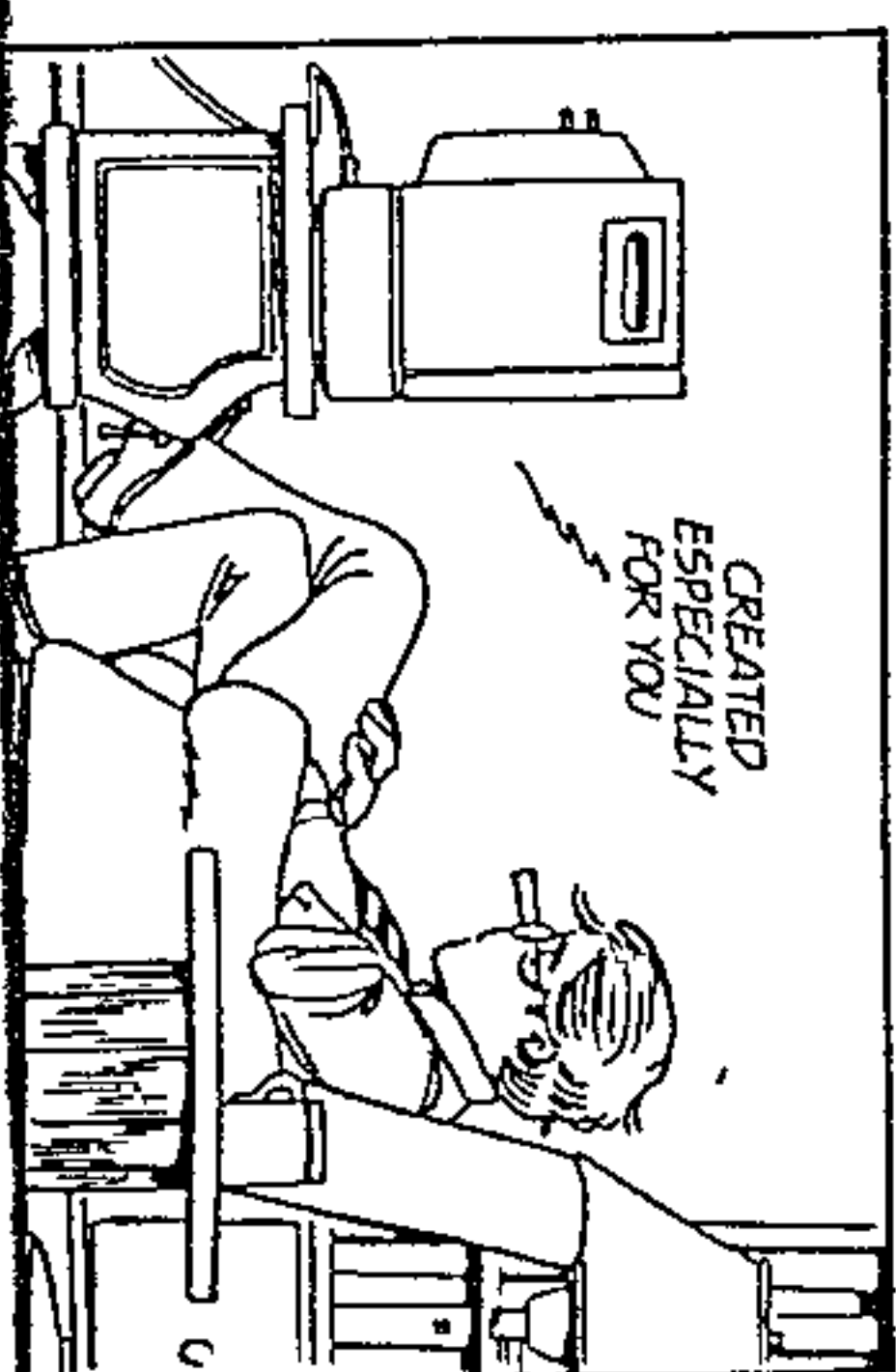
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But the question here is are these business leaders willing to demand the kind of political reforms which are necessary to bring the political unrest to an end? In particular, are they willing to put the issue of a universal franchise within a single SA state on the political agenda—because, ultimately, that is what black political opposition is all about

Doonesbury

G. B. TRUDEAU



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Productivity in clothing industry at high level

The South African clothing industry is internationally competitive, both in terms of cost and productivity, a study by the National Productivity Institute (NPI) has found.

Releasing the results of the study, the National Clothing Federation of SA (NCF) said in a statement that South Africa's productivity was roughly two thirds that of the top eight industrial countries and only marginally exceeded by four developing countries.

In addition, as regards direct labour, production and administrative overhead costs per minute of production, this country performed "exceptionally well."

"In terms of output, although the country has relatively good indices for many productivity factors relative to developing countries, if it is to achieve higher levels against international competition it must increase either its working period or its basic productivity index," the statement says.

"Significantly, the country's productivity is better than all

other countries of South East Asia and Central America and is only bettered by four of the Mediterranean countries of Europe.

Discussing the cost comparisons of the study, the NCF says the cost per minute for the independent states of South Africa is "unbeatable".

"Of the eight industrial countries studied, the highest cost per minute in March 1985 was 20 US cents in the USA and the lowest was 11 US cents in the UK. The average for the industrial countries was 16 US cents.

"The East European countries had an average cost per minute of 8 US cents in February 1984 (latest figures), putting them close to the average for developing countries of 7 US cents in March 1985."

South Africa, with a cost per minute of 5 US cents in March 1985, was as low or lower than all the developing countries for which figures were available, with the exception of Malaysia, South Korea and the independent states of South Africa.

STANDARD REFERENCE

DURBAN — South African companies could easily double their "very poor" productivity levels, thereby making major savings in time, money and labour, Toyota managing director Colin Adcock said.

Addressing top businessmen at a "Business Briefing" seminar, he said most South African businesses operated at productivity levels of between 30 and 40 percent, about the lowest in the industrialised world.

By contrast Japanese companies were more than twice as productive — around 80 percent.

It would be relatively easy for South African companies to step their productivity up to 80 percent levels, though difficult to get beyond that level.

Unfortunately local attitudes, possibly influenced by the mistaken belief that labour was cheap, did not seem conducive to this.

To achieve better productivity top management had to get actively and personally involved, he said.

Managers had to work out, in advance, how they would allocate the productive capacity "saved" and they had to reas-

Adcock points way to improving productivity

sure employees that their jobs would be guaranteed in return for workers' assistance in improving productivity.

In Toyota's case, the many workers whose old jobs had been eliminated — but who had been guaranteed employment — had been used on new lines of component production, saving the company from having to buy these parts.

Outlining improvements established at Toyota, which has its factory at Prospecton near Durban, Mr Adcock said they stemmed from a study of three things — how much time people spent working, walking and waiting.

In South African business, an enormous amount of time was spent simply in waiting. Pharmaceutical representatives, for example, must spend about 80

percent of their time waiting to see medical practitioners — a cost which had to be passed on.

Mr Adcock said major improvements in productivity had stemmed simply from reacting to an analysis of how much time Toyota staff had spent walking from one job area to another, and waiting for things to happen (like managers' signatures).

In 1973 it had taken 17 Toyota employees to produce one vehicle a day. By the end of 1984 this had been reduced to 10 employees a vehicle a day.

A reduction in staff per vehicle also had led to savings in inventory and space.

Over the same period the average inventory of 27 days had been reduced to 10 days. This had obviated the need for construction of one extra large building.

Colin Adcock — Too much time spent waiting for things to happen

Lower factory utilisation mirrors SA economy

Bus Day

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4/12/85

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THE economy's poor performance is underlined by the latest statistics on the utilisation of factories' capacity

The figures, released by Central Statistical Services, are based on regularly-conducted surveys and show that not only has utilisation decreased, but that the reasons for the fall have moved increasingly away from shortages of inputs to lack of demand

At the end of 1982 the manufacturing sector was operating at 87,6% of its capacity. This 12,4% under-utilisation was ac-

JOHN TILSTON

counted for by a 1% shortage of raw materials and 1,6% shortage of labour.

Only 9,1% of the shortfall was attributed to "insufficient demand".

By August this year utilisation had slipped to 83,8%, with 14,3% of this attributed to insufficient demand.

Worst-hit industries included the motor industry (at 74,2% capacity), transport equipment (74,8%), electrical machinery

(78,8%) and metal products (79,9%).

The picture has deteriorated since August. The motor industry, for example, is now reported to be operating at only 50% of capacity.

The manufacturing sector will be looking to a build-up in inventories to boost production levels. But few economists believe that stock levels will be increased next year. Most, in fact, are predicting a further decline in inventories by between R200m and R700m.

Economists just cannot see reasons for the businessman to increase stock levels in the current circumstances

Indeed there are fears developing that the immediate post-Christmas period could provide a number of shocks

Retailers have kept stock and staff levels artificially high, given the continuing decline in the level of real retail sales, in expectation of Christmas spending

Once the festive season is over, further de-stocking and staff redundancies can be expected.

BUS DAY 24/12/85
**Productivity
expected to
improve 1.6%**
(247)

FRED STIGLINGH

LABOUR productivity is expected to improve by 1,6% in 1986, says National Productivity Institute executive director Jan Visser.

The increase, he says, will stem from a 3% improvement in non-agricultural gross domestic product (GDP) output and a 1,4% increase in employment.

Labour productivity increased by 0,75% a year from 1970 to 1984 and is expected to show a 1% increase this year.

Visser expects productivity of non-labour resources to increase moderately in 1986, particularly fixed capital resources.

He bases this on the high levels of spare capacity of all manufacturing industries — particularly non-metallic mineral products and transport equipment — and the view that higher output levels are achievable from existing capital resources when recessionary conditions disappear.

Official estimates indicate 2,4-million jobless by 1987, even if the economy can achieve a growth rate of 3,6%.

"One of our crucial problems is to control our population growth," he says.

"It is a fact that the population growth rate starts to slow down once the population reaches a higher standard of living."

"The key to a higher standard of living is higher productivity."

Should SA wish to improve its productivity by a moderate 3% a year, says Visser, the average productivity growth of all organisations should be 3% as well.

Visser says people often make the mistake of regarding productivity as purely concerned with the better use of labour, whereas it deals with all outputs and all inputs.

Productivity gains can be obtained, he says, from the better use of materials and capital.

PIP plan saves IsCOR R97,5m

GERALD REILLY

ISCOR has achieved benefits amounting to R97,5m in the 1984/85 financial year through its productivity improvement programme (PIP).

This exceeded the objective by 34,9%, according to a corporation statement. PIP is an organised corporate savings programme aimed at stimulating, formalising, organising and developing the ideas of productivity-minded employees.

During the 1984-85 financial year 1 023 (21,7%) suggestions were received from the management category, while other employees submitted 3 699 (78,3%) and 2 299 suggestions were implemented. These included 489 (21,3%) suggestions from the management category.

This management participation was responsible for R89,5m (91,8%) of the total saving of R97,5m.

The PIP floating trophy went to IsCOR's manager, mining products marketing and coal buying, Dr E Raats, for suggesting the erection of a briquetting plant at the Newcastle works coke ovens, to improve the quality of coke by briquetting about 35% of the coal mixture.

Since the commissioning of the Newcastle briquetting plant in April, 1983, a repetitive saving of R8,7m/year has been effected. A second such plant was commissioned at Vanderbijlpark in July 1983.

Moving it up

Productivity levels in SA have long been under fire and corporate executives are as widely divided as ever on how output can be improved. Even more diverse are opinions on how to measure and improve white-collar productivity.

Increasingly under the spotlight when office worker output is studied is the value of an office environment geared to the duties of the workforce.

But data on the effects of office environments has been difficult, if not impossible, to find. Now, South African insurance company Nedequity believes it will have such a study ready in about six months' time.

For the past four years, Nedequity has been monitoring its staff using the National Productivity Institute's (NPI's) Management of Administrative Production Programme. For most of that period, the firm's headquarters were housed in a standard office block, with new departments evolving and becoming established wherever space could be found.

Recently, however, the firm moved into new headquarters in Johannesburg's Simmonds Street. The first obvious improvement, says assistant GM Janssen Davies, is that departments which have work connections are housed either on the same floor or nearby.

Davies is also expecting the hi-tech furniture, in which Nedequity has invested over R1m, to have a positive effect on productivity levels. "The suppliers we have used, Anglo Dutch and Grant Andrews, have always held that the right office environment should result in a significant increase in productivity. For the moment, we are adopting a conservative approach, but we do expect an increase."

Part of the reason for Nedequity's move was based on its reckoning that productivity could be increased with improved staff comfort. The firm plans to use the same NPI programme to monitor staff in all departments in the new environment.

The results of the survey will not be studied until the end of June. "We have to allow for the Hawthorne effect," explains Davies. "Some people react in different ways in the short term while they are settling in and growing accustomed to a new environment."

The NPI programme requires that ideal criteria and figures are set by each department monthly. These are then evaluated and turned into a type of productivity balance sheet, says the NPI's Peter Evans.

A method improvement sheet is often required to show where standards could be improved. Another means of working out any problems illustrated by the balance sheet

is the Quality Circle Programme. This is a system (invented by a Westerner) which evolved in Japan and has been adapted slightly to meet Western demands. The programme involves regular, but informal, meetings of all departmental staff to discuss activities and work out problems.

Davies believes the monitoring of staff productivity in this way is, in itself, beneficial. He explains "The fact that results are quantified, that new methods can be considered and problems discussed, is an incentive. In addition, the awareness of staff that interest is being shown in their work at all levels, but especially by management who might appear distant and unconcerned, also helps."

"When the programme is introduced, we have found staff to be more analytical in their approach to work and more motivated. In many cases, it is the peer group pressure to achieve a sound balance sheet at the end of the month which increases productivity."

Evans says the programme is used by some 160 of the country's largest corporations. Initially, he says, "mainly financial institutions showed an interest. But now it is moving into the industrial and mining sector."

Nedequity's survey, says Evans, will provide information which should aid other companies when taking decisions on productivity improvement.

Output boost for the white collars

9/3/86
BUS. TIMES
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OLD Mutual, one of South Africa's largest financial institutions, aims to save hundreds of thousands of rands a year through white-collar productivity improvement.

The need to keep costs down while maintaining standards encouraged Old Mutual to look at white-collar productivity — a field largely neglected by most organisations.

Awareness

One of the main reasons for the neglect is the difficulty in measuring and monitoring productivity because of the nature of white-collar jobs in the service sector.

Old Mutual nevertheless decided more than a year ago that a resource management programme was needed to address productivity needs in the organisation.

Initial participation was limited to the pensions, personnel and medical-aid divisions, but soon spread to other areas.

The programme, known as resource management, is designed to develop employee awareness and produce measurable results in eight weeks. In spite of previous difficulties associated with white-collar productivity, Old Mutual has scored significant gains.

Some of the most obvious results are stronger working relationships and a clearer understanding of productivity. Measurable bottom-line savings have totalled more than R123 000 so far.

Duplication

The pensions division alone has saved R49 000 by cutting down duplication of documents and replacing certain paper computer reports with microfiche. Savings are calculated in terms

of both time and money.

A banking executive says: "One of the reasons for the difficulty with white-collar productivity has been that service industry managers work in a comfortable cocoon of awareness."

"Irrespective of levels of performance, they are guaranteed levels of remuneration not much different from their high-performing colleagues."

Sanctions

"In SA the demand for skilled managers has usually exceeded supply to such an extent that they have seldom found their pay scales subjected to performance."

"The usual reward for better performance is promotion, which in itself means better remuneration. If this does not come the manager's way, he resigns for higher remuneration in another company because of the scarcity factor."

"The system encourages complacency and is extremely comfortable for the mediocre performer."

"A system should therefore be installed in which a good manager is identified and adequately rewarded. The question must then also be asked: How much of a manager's remuneration package should be at risk?"

"In Germany and the US, where managers are rewarded for good results, up to 30% of their salaries could be at risk through the provision of sanctions for mediocre performances. This system of sanctions is hardly known in SA."

"To improve productivity of service industry managers, we need to set good objectives, acceptable measures of performance and reward systems that will make it worthwhile to meet company goals."

"We need to eliminate the present security-blanket type of remuneration package."

Recession a blessing in disguise for productivity

By Frank Jeans

While South Africa's productivity still lags by world standards there has been an improvement in recent months, mainly because businessmen have probably come to realise that in recessions they cannot increase profits merely by raising prices.

Productivity pundits believe that so far as output levels are concerned, the economic slump has probably been beneficial as business people are forced to go back to basics to survive and meet the challenge of limited markets and fierce competition.

And the prospects of South Africa pulling itself out of a sluggish 0,3 percent productivity growth rate compared with 1,3 percent in the US and 3,2 percent in Japan?

SAVINGS RATIO

While there is a turn for the better, there is no doubt the road ahead will be hard. It should be remembered that a vital component in productivity is capital — a commodity which South Africa is comparatively short of these days because of the dry-up in foreign borrowings.

It should also be remembered that the country's savings ratio to capital formation is woefully low compared with that of other developed countries, so that what local finance is available, will have to be mobilised to the best advantage.

"Capital will be needed for investment in technology. Without it, South Africa will not be competitive in international markets, and therefore there

will be no growth in job opportunities," says Dr Jan Visser, executive director of the National Productivity Institute.

Dr Visser believes South Africa has made tremendous progress in education over the past 100 years, but he says "We are still 1 000 years behind." And that although South Africa's multi-racial society is well enough trained for a subsistence economy, the country was still ill-equipped for the hi-tech, economic world.

There is no doubt that while a better education base is "still generations away" South Africa can still enlarge the training base.

As the NPI director points out "While education prepares a man for life, training prepares him for a living."

Material resources will have

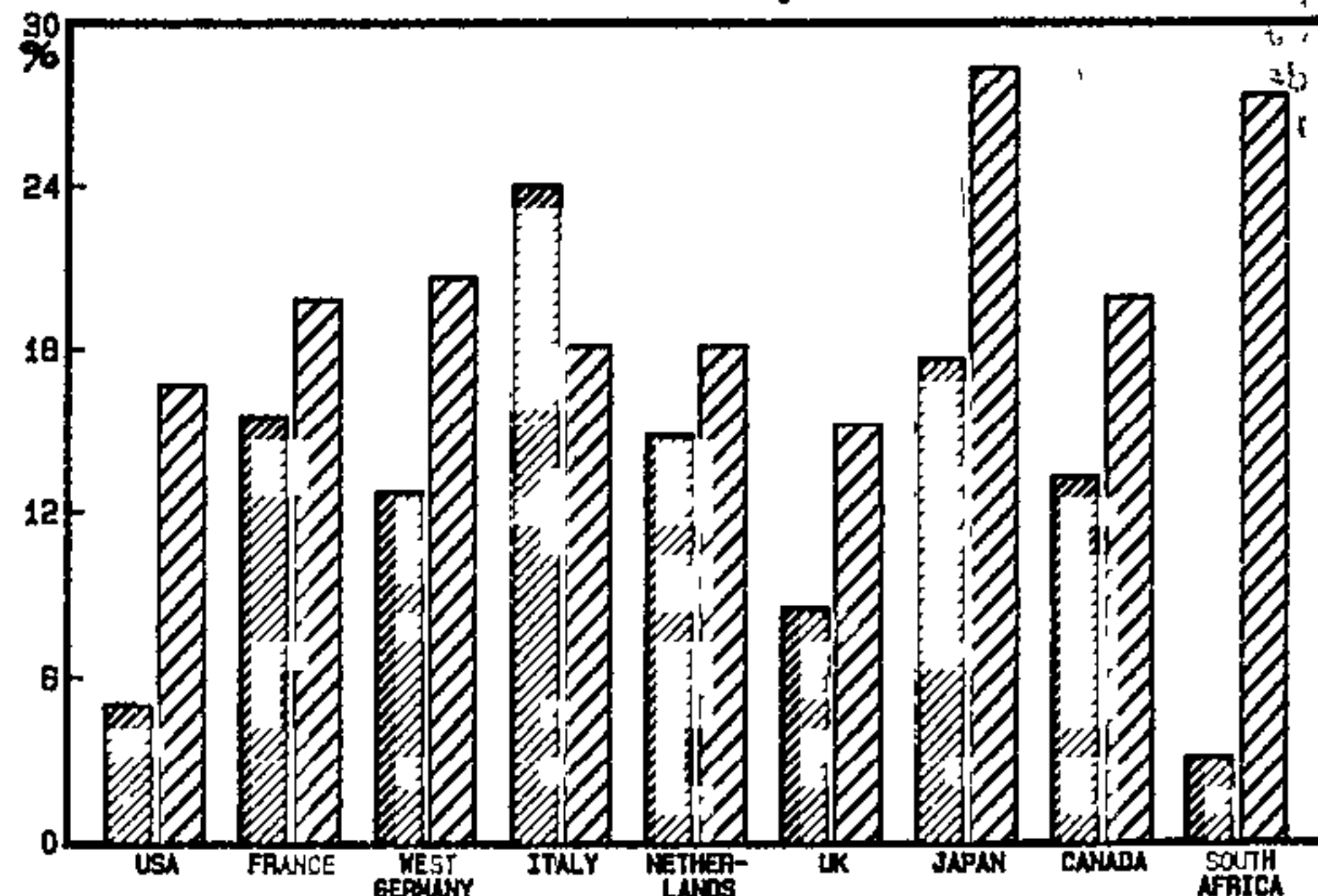
to be used more sparingly so as to achieve more with less, but in the end it is the worker who plays the central role in productivity.

"Capital and materials cannot produce anything, and unless we solve the twin problems of poverty and unemployment we will never have socio-political harmony," says Dr Visser.

"It is labour which uses capital, and if labour does not co-operate we will slip further behind in output levels."

"On the other hand, management must ensure that workers get benefits from increased productivity and not be concerned just with the profit motive."

To increase South African productivity by only a one-percent would mean the injection of R1 billion more into the economy.



South Africa's weak position in the savings-capital table compared with other developed countries

Legend:
 Solid bar: Savings as % of disposable personal income.
 Hatched bar: Capital formation as % of GNP

Des DAY (247)
3414/8
TCI exhorts state to do better

GOVERNMENT must make a sustained and determined effort to curb inflation and improve productivity, says the Transvaal Chamber of Industries.

"This country cannot go on concentrating on crisis management and losing economic ground merely by relying on the next gold price

MICK COLLINS

windfall for some respite," it says in its weekly bulletin.

"We are not alone in our concern about the standard of productivity and the economic and exports growth rate amid the mounting domestic and overseas pressure," it says

Women's fashion footwear manufacturers 'face disaster'

By Stan Kennedy

The average women's footwear manufacturer experienced a virtual zero growth in rand sales in 1985 and this sector of the industry faces financial disaster, says Dr Jan Boer of the National Productivity Institute (NPI).

Net investment increased by eight percent while profits declined by 60 percent or about R260 000 per company. If the change in investment is taken into account, the average decrease in profit per company was R370 000.

This decrease was due to manufacturers absorbing R344 000 in resource price increases. Efficiency gains compensated for this absorption with R135 000 but capacity utilisation decreases cost each manufacturer another R161 000.

The NPI study covered 13 predominantly ladies' footwear manufacturers as well as seven predominantly men's manufacturers. The sample is said to be representative of the industry and covers 60 percent of employment, turnover and output.

"The ladies' sector is experiencing its worst financial position in the last 10 years," says Dr Boer, "and it is imperative that manufacturers, retailers, suppliers and labour consult with one another on the future viability of this sector."

"A further decline in profitability this year may lead to the closure of many reputable firms."

Average profit margin before interest and tax in the ladies' sector crashed to 1,17 percent of gross sales. Turnover of operating assets was 2,73 times a year and therefore the return on operating assets was only 3,19 percent before interest and tax.

The NPI estimated that the average interest burden was four percent of gross sales per company. This indicated that ladies' manufacturers were making losses after interest or just breaking even.

The raw material and manufacturing overhead cost components expressed as a percentage of gross sales rose sharply over 1984. This was caused by lower capacity

utilisation of the fixed assets and the inability of the manufacturers to increase selling prices in line with raw material price increases.

The men's sector held its own, each company's profits decreasing by R11 000 on average if the increased net assets employed (R2 million per company) was taken into account.

However, the decrease in profits originated from a cost absorption of R806 000 per company, offset by a R530 000 efficiency gain plus a R265 000 capacity utilisation gain.

Profit margin was about 10 percent, while operating assets were turned over 2,4 times to give a return on operating assets before interest and tax of 24 percent.

Golds close mostly easier

Gold shares closed mostly easier, shedding a part of their recent gains on light profit-taking and currency factors as the rand recovered partially from Thursday's sharp fall, dealers said.

Kinross lost 150c at R42,50 while cheaper gold share losses ranged to 75c in Durban Deep at R21,75, but ET Cons was among a few firm spots, closing 150c higher at R47. At the close 35 gold shares were lower, seven higher and eight unchanged, while the Krugerrand slipped R10 at R790, they added.

Mining financials and other minings generally also drifted off their recent highs, with Anglos closing 25c up at R43,50 after opening stronger at R44, while diamond share De Beers shed 30c at R23,70.

Shortly before the close the JSE all gold index had fallen to 1174,7 from a close of 1205,1 Thursday, but the industrial index had risen slightly to 1094,7 from 1088,4.

The overall index was down slightly at 1392,7 from Thursday's 1400,0 finish — Sapa



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247

Govt plan to boost productivity

By FRANS ESTERHUYSE
Parliamentary Staff

A NEW scheme to boost productivity in decentralised industries has been launched by the Government

Announcing this in Parliament today, the Minister of Trade and Industry, Dr Dawie de Villiers, said this was a major step towards ensuring the permanence of decentralised industries

The National Productivity Institute would be asked to design a system for monitoring the productivity of these industries. Officials of the Decentralisation Board would be trained to conduct such studies

Dr de Villiers said the aim was to subsidise industries to the extent of 50 percent of the cost of these productivity investigations

He was speaking in the House of Assembly's debate on his department's budget vote

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**Ratio of
managers
to workers
is weakness**

Industrial Staff

PRODUCTIVITY problems are related directly to South Africa's poor record of developing effective supervisors

The local management-worker ratio of 1.42 will have to change dramatically if productivity is to improve

This will be the theme of a one-day conference on Wednesday at the Jan Smuts Airport Southern Sun Hotel

Keynote speaker will be SA Institute of Supervisors (SAIS) president Dennis Etheredge. Other speakers will include senior training officials from Anglo American, Standard Bank Investment Corporation, the Human Sciences Research Council and the mining industry

Details of the conference, organised by the SAIS, are available from executive director Mike Taylor on (011) 339-2363

Bus Day 24/5/86

**New look at skills
needed — Viljoen**

GERALD REILLY

INDUSTRY and commerce will become more dependent on a balanced supply of highly skilled black engineers, technicians and artisans, says Minister of Education and Development Gerrit Viljoen.

He told the conference of the Federated Societies of Professional Engineers in Pretoria on Friday SA was confronted by a situation of inadequate funds, an inadequate, largely white skilled and managerial workforce and a large supply of black unskilled and semi-skilled workers

A Manpower Department survey last year found that actual vacancies for engineers amounted to more than 1 000; for engineering technologists 800; and engineering technicians, about 3 500.

Because of the shortage of engineering technicians, industry had tended to use university-educated engineers in jobs which could be done by technicians.

Referring to negative tendencies in education, Viljoen said parrot work was stressed at the cost of independent thinking, and achievement and progress were evaluated on memory work, instead of on thinking ability and the ability to make decisions

During the Standard Six and Seven phase of the career education model, it was planned that 70% of pupils should become familiar with building, metal and electrically orientated directions

Viewers rank M-Net in poll

STEPHEN CRANSTON

WHITE adult television viewers expect subscription TV — M-Net — to be of a similar standard to that of the current TV4 channel, according to a media study conducted among 200 people on the Witwatersrand.

When asked to rate TV1, TV4 and the subscription TV services, TV4 achieved a rating of 6 out of 10, followed closely by subscription TV at 5.9. TV1 lagged behind with a rating of 5.3 out of 10

KEITH PRETORIUS

Better late than never

FACE TO
FACE

Belatedly or not, South African manufacturers seem to have taken the Just-In-Time (JIT) management philosophy, designed to reduce inventories and improve productivity, to their hearts. An *FM* analysis of the system on May 16 has drawn wide response and here Peat Marwick management consultant Keith Pretorius continues the debate.

FM: Where do the main advantages of JIT lie for South African operators?

Pretorius: Local companies have long held to the contrary philosophy of Just-In-Case. The result is that inflated raw material and stock inventories currently cost them millions of rands every year. It means capital is locked up, with interest loss implications, and cash flows are seriously impaired. Also, big inventories often blur management and manufacturing deficiencies.

JIT can stem this financial haemorrhage and bring manufacturing capacity, inventory levels and profitability into proper balance.

By aiming to eliminate waste everywhere, JIT insists on ever-improving standards. **At what level should JIT principles be applied?**

The dedicated application of JIT should not just be at factory or business floor level. It requires total involvement, commitment

and powerful motivation starting at board-room level and penetrating right through the organisation.

It requires waste abolition by everyone through personal effort, time, inventory, processing, correction, delays, overproduction and conveyance. The bottom line is a dedicated team who think the system through to the end and, in its application, are psyched up to be one step ahead of everyone else. **Just how is this achieved?**

The JIT society is a merciless society — you cannot afford to make a mistake. If a mistake is made then a designated team examines the reasons and eliminates them so that the same error does not recur.

Can JIT be successfully applied to South African industry and business?

Definitely yes. But not that many firms and organisations here are capable of taking on the JIT challenge — for several reasons.

First, many companies are badly managed and too many have the mental attitude that "plenty is beautiful." In addition, there's a marked lack of enthusiasm to solve the problems, there is a lack of adequate systems or an inability to enforce those that do exist. Finally, in SA there has been a shocking neglect of employee training.

Everywhere we come across massive com-

panies that talk systems but don't have the policies or procedures to enforce them.

What can be done to change management attitudes?

This is a challenge of change for management. It will require in-depth training to make managers aware that there are different and more simple ways of improving productivity.

Managements must be flexible and recognise that JIT is outside basic traditional systems and approaches and that, given whole-hearted application and enthusiasm, it produces outstanding results. Any company committed to JIT can be assured of success, especially where productivity is a problem.

Are the main benefits experienced only by the larger, more progressive companies?

Although JIT principles are generally applied to larger, repetitive assembly-type operations, it has become increasingly obvious that it is the route for any company, large or small, which is worried about waste. **Is outside help available for smaller companies which wish to introduce JIT?**

There are consulting companies which supply such services. But it is important that the consultants should have had successful working experience in its application.

Factories working far below full potential

Capl Times
23/6/86

By DAVID FURLONGER

MAJOR sectors of SA manufacturing industry are working at less than one-third of full potential.

While most figures show overall capacity utilization of more than 80%, they mask a picture in which billions of rands is going to waste in under-used — and unused — machinery and technology.

Published figures relate to capacity assessed on current production. If market difficulties force an industry to cut back from two shifts a day to one, its assessed production capacity is also halved to take account of single-shift capacity.

To talk of 80% utilisation in such industries, therefore, is to talk of 80% of 50% of true capacity.

Reduced

And in those industries and corporations that have "mothballed" unused machinery and production lines, one is talking of 80% of 50% of reduced capacity.

All this is without taking into account four-day weeks and the fact that most modern manufacturing equipment is capable of round-the-clock, three-shift operation.

At the end of the day, therefore, where an industry is reduced to single shifts, such equipment is being used at considerably less than one-third of its full potential.

Stellenbosch University's Bureau for Economic Research (BER), in its recent manufacturing survey, estimated industrial production capacity utilization in the last quarter of 1985 to be 84,3%, compared to 85,7% in the corresponding 1984 quarter.

BER researchers say figures for the first and second quarters this year are expected to show a slight improvement on the corresponding 1985 quarters.

Expectations

However, both they and Federated Chamber of Industries (FCI) officials add that all these figures are based on reduced capacity expectations caused by working cutbacks.

"Some industries could more than double

their capacities simply by returning to normal working conditions."

Certain industrialists, while conceding that official production figures hide a much gloomier picture, dislike the notion that they are operating at less than one-third of potential.

According to Volkswagen MD Peter Searle, who is president of the National Association of Automobile Manufacturers (Naamsa), the motor industry is operating at approximately 50% of capacity.

Working on a single-shift basis, it is expected to produce 14 000 cars this year out of the 28 000 it could produce on its normal two-shift basis.

Says Naamsa director Nico Vermeulen "When we measure production capacity, it is related to the normal operating hours of that company. The furthest we've been is a double shift."

Recovery

Sources at Seifsa — the Steel and Engineering Industries Federation — say some heavy engineering sectors are operating at only 45% of capacity. This figure, too, is based on comparison with a double-shift system.

With little sign of markets picking up, and fluctuating exchange rates and political pressures

making it increasingly difficult for manufacturers to find export markets, there is general agreement that present low production rates are with us for a long time to come, with all the unemployment and wasted investment it implies.

Ironically, it is the sanctions threat that offers the most immediate prospect of recovery, according to some observers.

Cut off from foreign products markets through all-out trade sanctions and disinvestment, there is no shortage of spare SA manufacturing capacity to take up the slack.

BUW DAY 25/6/86
INDUSTRY

Hi-tech bureau to set up shop

MICK COLLINS

A PROJECT with far-reaching implications for industry has been launched by the National Productivity Institute (NPI).

Pioneered in SA by NPI's Anthony Stocking, the concept of determining technological strengths and weaknesses within a company is being launched with the UK-based firm, Quo-Tec



Quo-Tec MD Norman Waterman, who has visited SA seven times in the past 18 months, says there is a definite need for "a technological marriage bureau"

Waterman says "The concept is simple in that it brings together a company with a technological problem with people who can take an overview of the situation and advise accordingly."

"We will provide a technological auditing service with aspects such as an expertise register"

"This register will comprise more than 5 000 names of individuals worldwide with the necessary expertise to help in any given situation"

He says the main breakdown point of any technological sortie is understanding the problems.

Waterman says: "From there it is but a short step to come to the realisation that high technology is transferable across a broad spectrum of industry."

"If expertise needs to be imported then so be it, but invariably we find that all the help needed is close at hand in institutes such as the CSIR."

This expertise can then be interfaced with research into what that particular industry needs

Waterman says. "Companies must also know how they are placed in comparison with their competition and this is where we can draw up guidelines for their technological and planning needs."

While financial audits of a company look backwards at past performance, technological audits look forward.

Waterman says "We look at technological advances that are vital to business and at which technologies we can afford to import"

200 non-taxpayers

40 000 SM jobs are 'lost' ^{12/7/86} annually ^{24/7}

By Winnie Graham

Current economic trends are "wiping out" jobs in South Africa at a rate of 40 000 a year, says Professor Les Cohen of the Department of Building at the University of the Witwatersrand.

Delivering the keynote address at the national congress of the SA Institute of Building in Pretoria, he said at a conservative estimate more than 750 000 potentially economically active South Africans were now unemployed.

"There has been no net increase in black employment during the past nine years despite the fact more than 250 000 blacks are entering the market annually," he added.

South Africa had one of the lowest productivity rates of the industrialised nations, the inevitable result of excessive State control and a third-rate educational system for blacks, he said.

In the last 12 years the National Productivity Institute recorded an annual increase in SA productivity of 0,3 percent.

The comparable figure for the United States was 1,3 percent, Britain 1,2 percent and Taiwan 6,1 percent. The only possible solution was to spend more time, effort and money on training.

Quoting a survey by Professor Jill Nattrass of the Department of Development Studies at Natal University, Professor Cohen said most business leaders saw the abolition of all vestiges of apartheid as an essential step in creating new business confidence.

Quality circles — a growing trend across SA

THE National Productivity Institute has outlined problems which have been serious stumbling blocks in the implementation of quality circles programmes.

First line managers often agree to QCs without believing in them or understanding their role.

Executives see the merits of a circle programme, want to reap the benefits, but fail to provide necessary structures and framework for implementation.

Many QCs find they have no time for regular meetings due to shifts, work pressure and organisational issues. Circle members should attend all meetings or development of the group will be hampered. The NPI suggests co-ordinators and leaders earn fully

consider meeting times before circles are started.

Poor leadership from circle leaders. Leaders need to have leadership qualities and must receive training in understanding human behaviour.

Insufficient training — A period of full-time training is necessary for leaders, while appropriate training is also needed for all participants in the programme — from top management to circle members.

QUALITY Circle programmes, which can generate phenomenal improvements to product quality and the motivation and productivity of employees, are becoming increasingly popular among SA companies.

Until now, the concept has only enjoyed real success in Japan, where it is credited with contributing about \$30bn over two decades to organisations by boosting communication and problem-solving abilities of employees.

A quality circle (QC) consists of groups of volunteer employees (between four and 20) on the same production line or department, who meet regularly to discuss work-related problems. They identify problems, investigate causes and recommend solutions to management.

But QC programmes have failed disastrously in many Western undertakings where employers rushed into projects without understanding them or where workers showed no interest or ability to participate.

They are nevertheless being used on an increasing basis in SA. P-E Corporate Services says that since the last quarter of 1982 they have trained over 300 circle leaders and co-ordinators from more than 100 SA organisations.

Isacor was one of the first SA organisations to use QCs. It has used them on the broadest scale to date and has about 750 circles out of the 3 000 in operation in SA.

Secretary of the National Association for Productivity and Quality Circles in SA (Naproqesa), Peter Evans, said other organisations using QCs included Escorn, Middelburg Steel and Alloys, Toyota, Samcor, Barclays Bank, Sanlam, Johannesburg City Council, Ohlssons Breweries and the Venterpost gold mine near Carletonville.

Evans said the success of circles depended on how they were implemented and maintained. He warned that QCs should not impinge on union issues.

SA Boilermakers' Society president Ike van der Watt said most unions did not object to the concept of QC. But he felt a major problem lay with managements that had imposed them without knowledge of what was expected.

He believed that if productivity was increased through the use of QC, this

Wits Business School senior lecturer in human resource management, Jay Owens, said QC programmes had met with a mixed reaction from unions.

Sometimes unions were concerned that management was getting employees involved in something that was essentially management's responsibility, he said. Owens said essential steps in setting up quality circles were:

That management consult the union early on.

That steering committees be established comprising management and union representatives.

To ensure provision of training for people involved in the programmes.

Training included input on decision-making, problem analysis and resolution, handling meetings, presentations, as well as training for management in managing the process.

Choosing a pilot area in an operation, introducing it and ensuring problems tackled lead to success. It was vital that QCs had access to information and technical experts who could help with problems.

Promotional work to publicise the success of groups and to give people recognition for their achievements.

Several industrial relations practitioners maintained it essential that management accepted workers as an independent group with a right to participate, and demonstrated a willingness to share information and decentralise decision-making with employees.

On the union's side, there must be an acceptance of the existence of common interests, joint objectives and a willingness to co-operate.

Practitioners maintained difficulties facing QC programmes were exacerbated by abysmal standards in black education in SA, not conducive to a worker's desire or ability to participate effectively in decision-making programmes.

Although QCs are gaining some popularity in SA, their long-term effectiveness has yet to be assessed. It is also difficult to predict the future success of QCs in SA, given the fast-moving developments on the industrial relations front and in the unpredictable political sphere.

However, the success of QCs will probably be largely determined by the commitment of managements to improving and upgrading these programmes and the extent to which the full co-operation of unions can be obtained.

PRODUCTIVITY

CLAIRE PICKARD-CAMBRIDGE

Aim of quality circles is to achieve greater participation, productivity and profitability

By Frank Jeans

It has been said that even the lowest wage earner has some responsibility, yet, at his workplace, the same breadwinner is too often regarded merely as a nonentity.

And that's as good a reason as any for business to take a fresh look at itself so far as harmony, or the lack of it, through all levels of company structure is concerned.

Certainly, the National Productivity Institute (NPI) is orchestrating the concept of Quality Circles, the aim of which is to convert greater people participation into higher productivity and profitability

Analysts claim that poor quality, on the back of indifferent employee attitudes, costs an estimated 15 to 30 percent of sales

"Business can boost profitability without having to hire one more worker, without having to buy one more piece of equipment and without having to sell one more unit of product," says Mr Dirk van Eeden, a senior project manager with the NPI and who is involved in the Quality Circle (QC) concept

It originated in Japan just after the World War 2 when American consultant Edward Demming told the rural-based Japanese they could become an industrial power

Dirk van Eeden

The Japanese proved to be good listeners and their success as "100 percenters", based on the principle of quality awareness all the way down to the factory floor, is legend

"Quality in terms of client specifications is one thing but it has to be extended to the human factor," says Mr Van Eeden

"The concept must involve people — a supervisor or foreman and a work team of, say, up to seven, all of whom can relate to the same problems and objectives — who must be aware of precisely what they are producing in terms of quality"

Little wonder the Japanese switch-on to the post-war industrial revolution posed a direct threat to Western business — a threat based on quality assurance all the way down the line of the business enterprise

And there is no let-up, for there are now about 1 million circles throughout Japan and the number continues to grow

While the South African effort in this regard is in its infancy, Mr Van Eeden

believes companies that come to understand the magnitude of the opportunity and include quality improvement as a key element of competitive strategy, can reduce the cost of poor quality by more than 50 percent in three to five years and thus, considerably improve return on investment

Lack of understanding

The formula for QC success, however, lies in 20 percent of the effect in training and 80 percent in management interest and it is in the latter area that the acceptability problem is most frequent

"There is a lack of understanding of the concept among many South African managers," says Mr Van Eeden.

"They seem bewildered by what is meant by constructive involvement procedures and while many see the concept as being worthwhile, they don't really want to know why a machine doesn't work — that's somebody else's problem."

Middle management, too, instead of seeing the QC concept as a threat to themselves, should be initiating the scheme

On the other hand, it can be said that up to now, the management factor has been overlooked and that much more has to be done in training and exposure to the QC concept so that they can understand what people motivation really means

Is it not true that too often problem solving in a company is delegated upwards and directed at people who are not directly associated with a particular problem?

"When a company embarks on a QC programme it can't expect too much too soon," says Mr Van Eeden

"It must be carried out in a structured way and there has to be a lot of hand-holding. Indeed, there can be 50 percent failures in QC because they have not been implemented properly"

Turnaround of business

How the QC system works is seen in the case of Booye Rousseau, an insecticides sales manager in South Africa's drought-stricken agricultural sector

In a market which was 20 percent down in volume amid a backdrop of diminishing crops and cash flows, and rising input prices, Mr Rousseau's QC route resulted in a turnaround of business to a 15 percent increase

Going back to that company nonentity, Booye Rousseau probably sums up what is required in business today

"Motivation is in you, the leader — not in your salesmen. It is transferred from your inner self to others"

While the downtalk on South Africa continues and agitation for trade blockades and disinvestment increases, there are still some campaigners around the world concerned about this country's progress — particularly through its people.

American, Don Beck is one

A pioneer in the field of new approaches to conflict management, Dr Beck is one of the key speakers during Productivity Week starting September 1 and organised by the National Productivity Institute.

"He is also active in the well-being of South Africa," says an NPI spokesman, "and is working with top-level political and business leaders here towards changes which are vital to the future of business and the peaceful geo-political future of the sub-continent."

Dr Beck will talk about South African thinking patterns and the ability of business to increase productivity at the Carlton Hotel, Johannesburg on September 3.

Other events during Productivity Week are

- The South African Institute for Industrial Engineers' national conference on September 3 and 4 at the Burgerspark Hotel, Pretoria at which the emphasis will be on productivity management and the application of computer technologies
- A joint seminar of the Natal Chamber of Industries and the NPI on the theme "Industry, Productivity and Job Creation" on September 5 at the Royal Hotel, Durban
- The annual Cape Productivity and Quality Circle Convention on September 4 in Cape Town, looking at productivity in clerical and services
- A Homepower seminar on September 4 in Unisa film auditorium, Pretoria, to make business aware of the untapped skills among home-bound wives
- A Women's Bureau conference "Employment Issues for the Future — a Million Jobs by the Year 2000, on September 5 at the Johannesburg Sun and Towers
- Five different workshops
- A municipal quality circle competition and seminar on September 5 at the Recreation Facilities of the Johannesburg Municipality
- An agricultural co-operatives productivity circle competition on September 4 in Pretoria

Don Beck signed up for Productivity Week

By Frank Jeans

2/9/86 BUS DAY (247)

New programme designed to help secure the future



NATIONAL PRODUCTIVITY AWARDS

A Business Day Survey

CONCOR Technicrete has extended its productivity improvement drive, which has already boosted profitability 22% in the last two years

And through the use of the latest productivity programme — which teaches management principles to the workforce — further improvements are expected

The "6M" programme, now in use, is part of Concor's total productivity concept which extends from board level to the labour force. The company believes this approach is a key to success, particularly when the changing economic and social climate within South Africa is considered

Although productivity drives have already raised the company contribution level by 90% — lifting profitability in the process — further productivity improvement will be an important feature of the company's overall objectives for the next three years

The programmes in use have been streamlined to concentrate on further spheres of improvement and give a contribution objective of an 11,5% increase on present figures by June 1987

With the changing economic and political climate Concor Technicrete believes that the key to success lies in a constant attempt to improve productivity. To this end it has introduced one of the latest productivity programmes

CHERILYN IRETON

The three fundamental parts of Concor Technicrete's productivity drive are human resource requirements, management of programme by objectives and a measurement system which allows for control and constant review

The linking of all three, together with on-going awareness training and commitment is considered essential for beneficial results

Concor Technicrete is a member of the Concor Group and is involved in the production of precast concrete products such as building bricks, paving blocks, concrete mine blocks and other mine

support units

It is also involved with design and construction contracts for block paving of large industrial areas as well as erosion protection and composite floors

In order to maintain the company policy of providing a quality product, timeously, and at a competitive price, considerable emphasis is placed on selective recruitment and on-going staff training

Several in-house training schemes are in progress and, as in the last 18 months, external companies have been approached to lend their expertise to various areas. These include the NPI, PCI and NOSA

Turnover is presently R22m a year and shows a taxed profit of R950 000 on capital employed of R5m. Operating in the Transvaal and Free State, Concor employs 527 hourly-paid staff and 87 salaried staff

The Concor Technicrete approach of managing productivity by objectives is initially carried out and controlled by total factor productivity measurement

The company is measured as a whole on total income from total inputs of

labour, plant, materials, overheads and capital. This holistic approach is then applied using the objective of 24% overall profit on cost for pricing strategy

Performance for the 1985/86 financial year indicates an increase of 4% on overall contribution levels from the previous year, being a 22% increase on the previous level of 18% after consideration of factory overheads

This improvement has been achieved in an economic climate where cost prices have increased 18% over the year and price increases passed on to clients by 5%

Concor was able to absorb 13% of cost increases through intensive productivity programmes at its factories

Carefully-controlled expenditure and utilisation of available manpower has meant that while increasing turnover from R10,34m in 1983 to R22m in 1986, overheads have been reduced from 13% on direct cost to 8%

Further reductions are planned, but care is being taken not to over-extend resources

Book of good tips

THERE is nothing new about productivity, says a new book — *Profit from Productivity*

Indeed, early writings on the subject go as far back as 400 BC and by AD 1400 an efficient assembly line was working in Venice

The book published by Juta and co-authored by John Humphrey and Fiona Halse, gives easy-to-follow examples of how to measure various production schedules

Influences on productivity are also included, like tangible factors, as well as psychological factors such as behavioural patterns of management and employees

In a lively, witty way, the book works through the various ways of improving productivity. It says, for instance "It has been said of productivity improvement (as of many other exercises) that it is 10% inspiration and 90% perspiration. Inspiration certainly has its place in productivity improvement but, unfortunately, there is no way of escaping the perspiration involved"

The financial benefits available from increasing productivity are not ignored, with the authors giving tips on improving the productivity of assets, as well as measuring cash utilisation

Rowen: growth from light press outfit

THE Rowen Mobem plant for automotive parts was established in 1968 by British company Rubery Owen, with only light presses

In 1969, the first heavy press, a double-action 1100-machine, was installed

Metair became involved in 1973. By 1976 a further 16 presses were acquired and the heavy press shop was organised to run in three lines

In 1981 Wesco took a greater interest in the company to bring it closer to Toyota

"Rowen was then awarded a merit certificate for productivity improvements from the National Productivity Institute," says industrial engineering supervisor, John Chadaway

By 1984, the company had 34 presses — 23 heavy and 11 light

All components were reprocessed into class specifications. Finished goods stores were split to suit new specifications

A second merit certificate for productivity improvements was

received. It was the fourth year of continuous productivity improvement at the plant

"With the total commitment of the board, management set out to improve on the previous year's successes. The 1984 major objectives were to reduce downtime, and set up times and increase strokes/hour in both the press shops to allow full implementation of the Kanban system and adhere to the five-year plan which had been developed in 1981 in liaison with Toyota Motor Company of Japan

"Toyota SA is also tremendously productivity conscious," Chadaway said

Targets were also set to improve the plant's resources with special attention to raw materials, finished goods inventories, scrap losses, raw material use and quality

All components produced in the press shops were identified by different class categories. With all parts identified they were then reprocessed to their respective press

lines. Each press was then fitted with die trolleys to reduce set-up time

Target boards were manufactured and placed by the leading press of all lines to indicate the actual performance of the line compared with targets set by management

A tool improvement programme was also raised to improve existing dies to ensure the new targets were achieved

"The company encourages all employees to work as a team for further improvements. An example of this is the continuation of quality circles, which were first introduced in April 1983

In addition, all other training schemes have been improved

"The resulting financial benefits enabled the company to absorb both a R1m raw material price increase and the new year annual wage and salary increases with no price increases to customers," Chadaway added

WHEN THE MINING INDUSTRY MAKES DEMANDS, IT GETS.

When a company supplies the S.A. mining industry, it had better be productive. And quality conscious.



Winner of a National Productivity Award. 1986.

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Two-year plan lifts ICL profits fourfold

ICL, International Computers Ltd, supplies, maintains and services computers and data processing equipment. It also offers a bureau service to industry and commerce.

This requires a high-quality product and service at economical cost.

As an NPI award-winner last year, ICL saw trading profits increase fourfold during the two years of its productivity programme. A 57.7% improvement in labour productivity and a 97.9% improvement in the productivity of capital employed, in inventories and debtors, was achieved.

Finance director Thomas Glover says "The importance of these improvements centres around the rapid changes in technology of the computer industry, together with the drop in the price of computer power."

"While the change in technology causes the price of computer power to fall, computer companies must increase real output while reducing the real input of resources, mainly labour and capital."

The worldwide trend is for a prolific number of hardware suppliers to copy technology and flood the market with cheap hardware and little, if any, back-up service.

This changing market position



□ GLOVER

prejudices ICL's position which is committed to extensive product research and development programmes, unless it can compete more effectively with a better product and service. This has been achieved by higher productivity.

The first objective was to change the administrative procedure to meet market requirements. Administrative productivity and that of cash resources employed in stocks, debtors and delivery cycle times had to be bettered.

Financial control was centralised. The finance division became accountable for expense control and management of

stocks and debtors. A separate logistics department managed physical stock from receipt of order to delivery. Stock requirements were projected against sales forecast and managed to minimise stock levels.

The finance division handled financial accounting and control which expanded to providing a management service to the revenue-earning divisions.

The programme's fulcrum was the achievement of management synergy focusing upon the effective use of cash resources and administrative effort.

This necessitated applying sound measures of performance and team building between revenue-earning divisions and the finance division to achieve common goals.

A plan to categorise tasks gave urgent ones priority. Actions to effect the improvements were clarified. Individuals were allocated responsibility for tasks to be completed by specific dates which were regularly monitored. Actions were aimed at making the existing system work and eliminating manual or ad hoc systems.

The finance division's organisation structure was centralised and streamlined to achieve greater business and financial discipline. A 23% overall saving in headcount resulted.

Job descriptions and accountabilities were revised and simplified to identify specific responsibilities.

Paperwork systems were streamlined and simplified. Discipline was enforced in the basic order acceptance by emphasising accuracy of paperwork, processing and procedures to improve accuracy.

Delivery

Responsibility for accepting orders was moved from sales management to financial division. Simple, easily identified and effective performance measures and targets were given to operational staff managing stocks, delivery cycle times (time taken from delivery of goods to customer site to processing the invoice to the customer) monthly cash collections and overall debtor levels.

Stock management control became the responsibility of logistics. A more effective stock control system, closely aligned to sales forecasts was implemented which resulted in lower minimum and re-order stock levels.

"Productivity improved consistently for three years, while selling prices increased at a lower rate than inflation. The increase in profits came as a direct result of improved productivity," concludes Glover.

Frametex staff trained to become multi-skilled

IN January 1984 Frametex Yarn Spinning Mill Number 8 launched a productivity improvement programme.

Training in productivity concepts and open discussions on work problems made workers productivity conscious.

Staff was cross-trained to become multi-skilled, their suggestions were implemented, daily targets were set for spun cotton yarn and all results were computer recorded.

Tasks were broken down into separate work elements simplified and workers were trained to perform to acceptable standards.

The company's bonus scheme was performance-related and workers were trained to perform daily machine inspections and to maintain their own machines.

Overall productivity improved by 35.2% from January to December 1984. In January it took 34.1 hours to produce 100kg of yarn, but in December the same task took 22.1 hours.

The same methods introduced at other mills in the group showed improvements of up to 28.24%.

More efficient methods, better time utilisation and more even distribution of workloads led to a 25% reduction in direct workers.

Working conditions improved as did payment.

Machine output was maximised by improved maintenance and no new machines were installed.

Exports were increased, helping to absorb increased costs on the local market.

'Project Alpha' helps save R20m

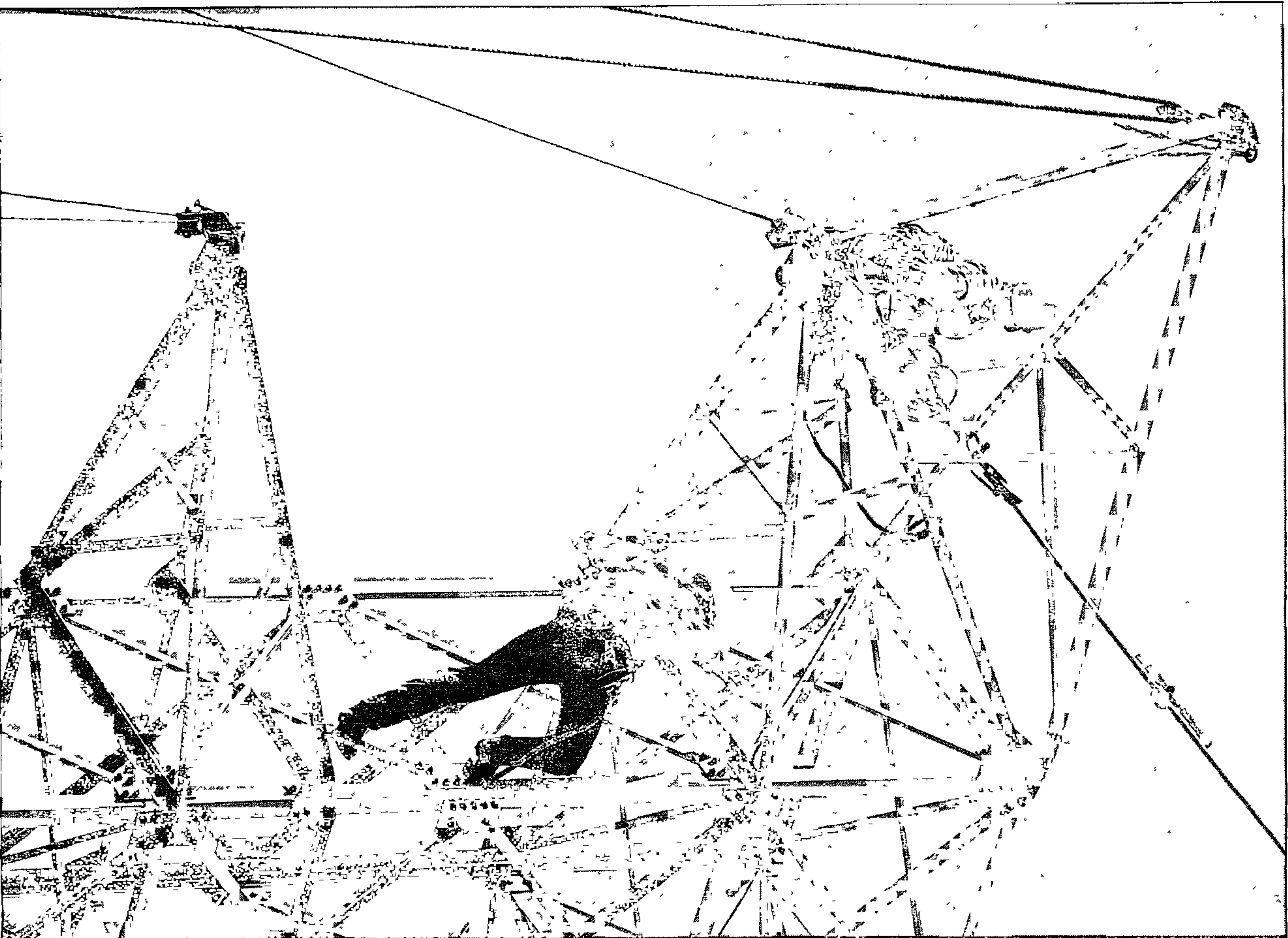
IN September 1983 Iscor's executive team introduced "Project Alpha" to reduce overhead expenditure.

"Alpha" was implemented by five senior officials with wide experience who were temporarily relieved of their normal duties. Heads of departments were involved to determine which functions should be discontinued, curtailed or transferred to other departments or to external institutions.

Each procedure was examined for efficiency and cost.

No new posts were created or equipment bought for the administration of the project. This resulted in overall savings at the Vanderbijl Park, Newcastle and Pretoria plants of R20m/year.

Iscor intends to repeat this rationalisation project every second year.



Human energy: a major source of electrical energy.

Any chief executive of a large company will understand the enormous complexity of co-ordinating 60 000 employees and an annual turnover of nearly R5 000 million. In addition, Eskom is over 60 years old and is the sole supplier of 94 percent of South Africa's electricity. It's a situation that could invite complacency and bureaucracy.

Aware of these problems, Eskom's management has launched the most dramatic restructuring programme ever undertaken by a major South African company. It involves the optimum use of human energy by creating an atmosphere of enthusiasm, commitment and dedication amongst employees at all levels. By encouraging employees to voice their ideas of how improvements can be made within their own departments, combined with wide-spread initiatives by management, dynamic solutions are being generated on cost-saving, better service to customers and general efficiency.

From this programme, it is expected that millions of Rand can be saved each year, which will be translated into lower tariff increases. Already, electricity from Eskom is among the cheapest in the world – despite the difficulties experienced in generating and distributing electricity throughout a country as vast as South Africa.

But we're not using the rest of the world as a criterion. Our concern is the role we have to play in the economic advancement of South Africa. We are intimately involved in the well-being of the public, of industry and agriculture, and in preserving our natural resources and the environment. This means that our efficiency affects not only our credibility with customers and investors, but also the future of our country and its people.

And that is why human energy – from management, and throughout the entire organisation – has become as important to us as the energy we sell.



All our energy for you.



NATIONAL PRODUCTIVITY AWARDS

A Business Day Survey

I&J hauls in big savings on fishing fleet

PRODUCTIVITY means addressing key problems, according to Irvin & Johnson, a food industry market leader

The company's seafoods division operates a fishing fleet of nearly 60 vessels from several ports

Among these is a fleet of 29 deep-sea stern trawlers from 400 tons to 1 600 tons, in the Cape Town trawling division

To maintain its competitive edge, I & J's top management encourages improved productivity in all fields

In an innovative response, the trawling division focused its attention on the reduction of a major operating expense — the fuel bill

Three actions were introduced, so successful, that they resulted in fuel savings which, over a five-year period, exceeded the 1986 operating costs of the fleet

Firstly, to combat the spiralling cost of diesel oil, marine engines were converted to operate on a blend of diesel oil and much cheaper heavy fuel oil

The R22m savings over six years motivated engine builders across the world to follow suit

Secondly, auxiliary engines have been replaced by units that operate on the cheaper fuel mixture

Thirdly, fishing fleet staff wholeheartedly participated in a productivity drive to reduce fuel consumption further through improved planning of fishing routes, as well as reducing speed and pitch, for instance

In addition to addressing the key problem of fuel reduction, the technologically innovative and participative management focused its productivity action on two other identified problem areas the exorbitant costs of fishing vessels and spare parts

A 19-year-old trawler due to be replaced at a cost of millions of rands was reconstructed for only 14% of replacement value

Omega groups save Iscor R15m

ISCOR is the largest iron and steel manufacturer in SA and employs a labour force of 60 300

For some time productivity improvements have fallen short of expectations, the main reason being that employees were not sufficiently involved in contributing towards

STEPHEN ROGERS

ties were started. This involves a group of employees, who perform the same or related functions, meeting one a week to discuss and solve work-related problems. This programme — called Omega

Lion Match puts a light to a savings bonfire

LION MATCH saved R10m in a 10-year programme that resulted in 50% less wood being used to make the same quantity of matches

The programme was undertaken to ensure the limited supply of poplar timber, which takes 20 years to mature, would meet match production requirements

Because of the savings achieved, Lion Match is now able to process timber for its own requirements and is in a position to export finished splints to other countries. It also exports matches

Rosslyn factory deputy manager Carl de Jager said there was an oversupply of timber now because of the productivity improvements. That is in contrast to the predictions made in 1974 that there would be a shortage of timber for the match industry in the years from 1980 to 2 000

Lion Match uses 100 tons of timber daily to produce 310-million matches at its two factories in Durban and Rosslyn

Because of the savings achieved, Lion Match is now able to process timber for its own requirements and is in a position to export finished splints to other countries. It also exports matches.

The company embarked on a programme to improve timber recovery as early as 1970, and after the 1974 predictions that there would be shortages of suitable timber before 2 000, set these objectives to reduce timber usage from 2,5kg of timber to 1,7kg a 100 boxes of matches produced within a 10-year period in order to ensure the limited supply of poplar meets future match production requirements

The company's strategy included making use of industrial engineering techniques to identify and investigate areas that needed improvement.

Using a management approach that allowed employee skills in the

WOOD is positioned for billet centring, after installation of the machine's billet centring device.

PETER WALLINGTON

decision-making process, developing techniques to measure productivity, researching and developing "peeling" machines that were capable of producing less waste.

Implementing improvements on existing machinery by means of additional capital expenditure.

Investigating methods of establishing timber recovery on a daily basis per peeler, and to feed that information back to the peeler operators in order to let them take part

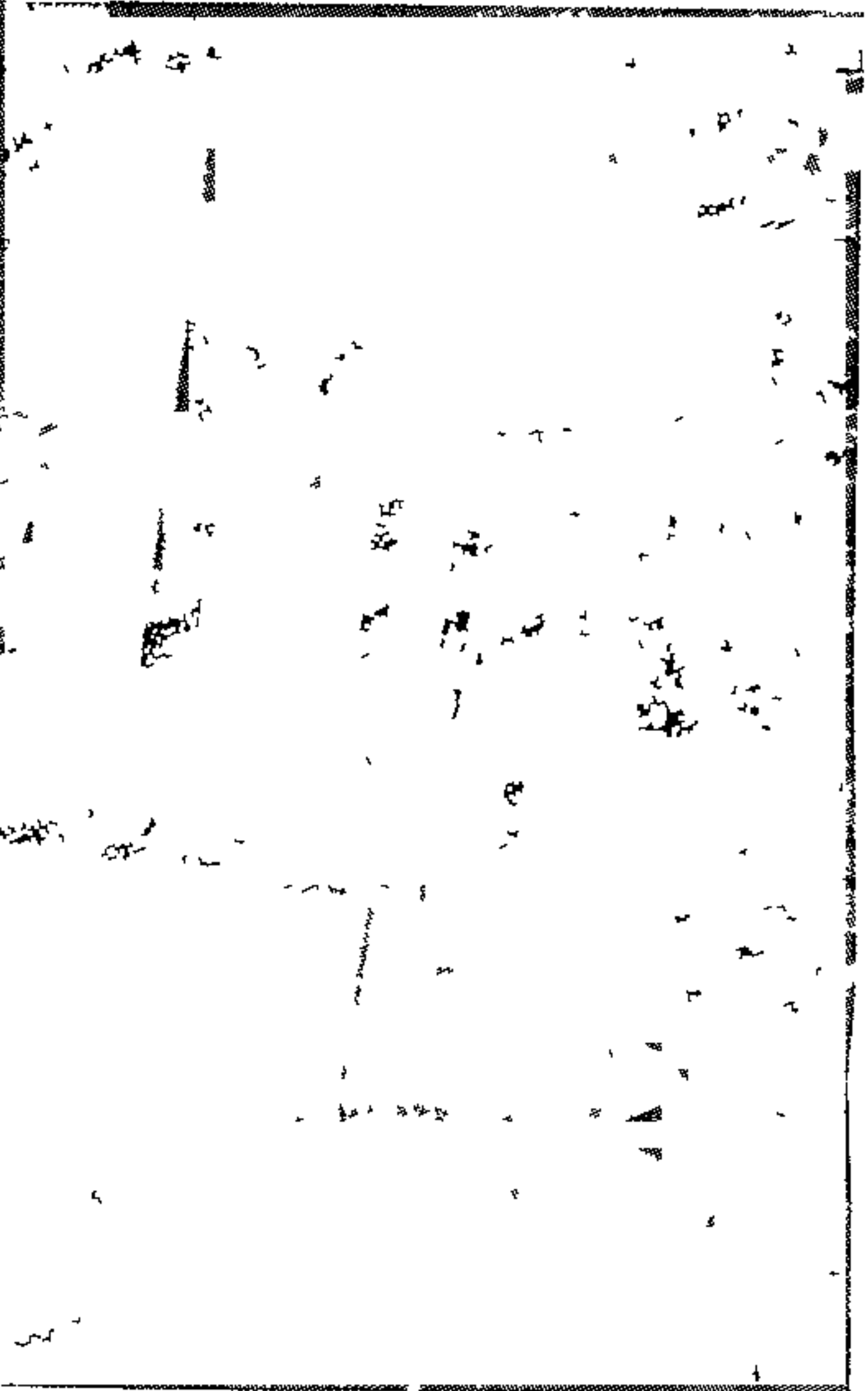
De Jager said that by 1985 Lion Match had exceeded its 10-year objectives and had achieved considerable savings

The amount of timber used to produce one carton of matches was reduced from 50kg of wood in 1974 to 28kg of wood a carton in 1985

By investigating log lengths and loading methods into rail trucks, the company was able to transport timber at a lower rail tariff to the factories

Between 1984 and 1985 the number of groups involved in the programme increased by 154% to 702 while the number of employees rose by 149% to 4 981

The programme cost about R1m to run during this period but it is estimated that it resulted in savings of R15,4m



WOOD is positioned for billet centring, after installation of the machine's billet centring device.

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SASOL 2 yesterday won an NPI productivity award for 1986 which recognises its consistent improvements over the past five years

Taking 1981/82 as a base year, the ratio of total outputs to total inputs improved by 102% in real terms. This incorporates improvements in terms of material and capital productivity of 83% and 103%. The cumulative savings to Sasol are conservatively estimated at more than R50m/year.

The South African Coal, Oil and Gas Corporation was founded in 1960 to produce fuels and chemicals from coal. As a result of the oil crisis in 1973, it was decided to expand the Sasol operations.

This led to the announcement of Sasol 2 in December 1974, representing a significant expansion of the group's manufacturing capacity. Construction of Sasol 2 at Secunda started in 1976, and its first oil was produced on March 1, 1980.

Sasol 2 GM Willem de Waal said that, as a member of the Sasol Group of companies, the Sasol 2 mission was to make the maximum contribution to SA's long-term prosperity by manufacturing fuels and chemicals from coal, recognising the fact that people remained the group's most valuable asset.

He said Sasol was a private company with a profit motive. The Sasol 2 management objective is, therefore, to render the maximum contribution towards return on investment of the Sasol Group over the long-term.

Management's philosophy is to make sustained progress over the full spectrum of management work to ensure productivity improvement over the long-term.

Although placing strong emphasis on the sustained improvement of company profits, the group believes profit should not be striven for at the expense of aspects such as a happy and motivated workforce, a healthy organisational culture, ethical norms and and environmental conservation.

Techniques

These objectives and philosophies have resulted in management action that has directly contributed to productivity improvement over the past five years.

Specific management actions which should be singled out are training, strategic and long-term planning, effective communication and a formal quality process.

Senior and middle management levels of the Sasol Group attend personal development seminars where shortcomings in the management skills of each individual are identified so that further development can be

Sasol 2 smooths way to profits and prizes with long-term plan

Sasol, as one of the most technologically advanced and strategic companies in the country, strives with obvious success to improve productivity continually. Its efforts are paying off in hard cash as well as prizes. Savings running at an estimated R1m/week, every year of operation, not only help to boost profits of the organisation but also lift workforce morale. These are achieved by specific actions and long-term training and planning to improve productivity.

aimed at the improvement of those skills.

This leads to the attendance of selected courses, as well as coaching for individuals by line managers. For general development, managers attend internal and external courses dealing with management of personnel, management styles, technical subjects and problem-solving.

Problem-solving techniques based on the Kepner-Tregoe principles have, for instance, contributed directly towards the improvement of productivity.

De Waal said a long-term strategy for the improvement of productivity was developed by the Sasol 2 senior management team during the period October 1982 to February 1983.

This strategy led, among other things, to:

Objectives for long-term growth in the yield of investment.

Plans to maximise production levels by the elimination of operational problems causing losses and the application of innovative reasoning to attain improved production yields.

Plans to minimise inputs such as materials, manpower and electricity to receive constant attention.

Commercial actions to curtail uncontrolled price rises of purchased materials and equipment. These actions included group discussions with suppliers, and resulted in the price rise of bought in items being held at 5% below the ruling inflation rate.

Discussion of the strategies with

management teams so as to obtain their support and commitment.

Changing the budgeting process from a theoretical senior management exercise to where each line manager completes his own budget and presents it at an in-house budget conference.

Deviations from budgets are only investigated and explained to serve as background for the formulation of action steps to rectify such deviations.

Operations incidents having a negative influence on production are quantified and reported in money terms. Steps are then taken to determine the causes of the deviations so that corrective action can be taken.

Recognition

Management communications, as an essential part of obtaining productivity through teamwork. At Sasol 2, middle management are present are held on a quarterly basis.

Corrective steps are then discussed and ideas exchanged, ensuring a coordinated effort.

De Waal says much of the recognition for the Sasol 2 achievement must go to the Sasol Group as a whole. The management actions described above are not unique to Sasol 2 — but form part of a group philosophy pioneered by top management and practised by all the Sasol divisions.

This supportive group environment did much to facilitate the productivity improvement.

How to make a friend.

Although suggestions and productivity improvement schemes were launched with some success, it was still felt that the level of personal involvement of all employees was inadequate.

Iscor realised that in order to undertake a full onslaught on low productivity the brain power of the combined workforce (management and staff) would have to be muscled.

A decision was therefore taken to create a feeling of solidarity among employees and to give them the opportunity to participate in the identification and solution of problems.

Accordingly, small group activities

increasing in number. Omega is designed to achieve, among other things, a greater degree of job satisfaction among employees, to enhance the worker's and foreman's status and to allow the individual to share in the success of the organisation.

The programme began to take shape when Iscor's Vanderbijlpark works launched a plan of action in June 1982. Interest soon spread to other plants and Omega has even been extended to include Iscor subsidiaries.

By June 1985 about 12% of all potential participants were involved in the Omega action Iscor aims at 90% participation.

duced benefits which are hard to quantify. For example it has been found that Omega not only develops leadership qualities but also expertise and skills.

The participating decision-making process also results in better understanding of own affairs and improves the perception of the foreman, supervisor and worker. It was also discovered that job satisfaction has greatly increased.

Finally, in acknowledging the contribution made by the employees towards Iscor's improved profitability, in 1985 the company introduced a productivity bonus amounting to 10% of its annual profits.

Variety of courses brings out the best

A WIDE range of human resources facilities is dealt with by the NPI.

Activities of one division are aimed at optimal development and utilisation of manpower in all sectors of the economy and at all levels within organisations.

- Available services are
- Training infrastructures are established, training is evaluated, needs identified and standards and courses are developed
 - In-house training techniques for the financial evaluation and costing of training courses are taught to enable training officers to provide cost-effective training with measurable results
 - Facilitator training a five-day course in group discussion and decision-making
 - Productivity training for managers and supervisors a practical course on productivity measurement, diagnosis of bottlenecks, implementation of productivity improvement programmes and maintenance of this action
 - Training of unskilled workers through simulation models for high productivity and a positive attitude towards their jobs, it is essential that unskilled workers get to grips with the basic principles governing their work

Systematic

- Personnel management selection, training and career planning through competency modelling
- Organisation studies evaluation of organisational and management structures
- Evaluation of human resource utilisation to assess to what extent an organisation's human resource department is meeting management's expectations for support, and where this department can improve, a systematic audit of the human resource function is done by administering two questionnaires which cover all the normal staff activities
- Evaluation of organisational functioning an organisational diagnostic study can lead to better employee participation and support, better communication, interaction and team spirit, as well as more job satisfaction
- Analysis of individual tasks functional job analysis is a service which can be used as an instrument to analyse personnel functioning and achievement
- Productivity and quality circles/groups NPI specialists help to form circles
- Inter-company productivity groups exchanging expertise and experience between companies is a useful form of collective problem-solving
- Administration improvement of clerical productivity
- Streamlining of systems red tape and inefficiency are drastically reduced



africon
cables

**BETTER
PRODUCTIVITY
MEANS
BETTER SERVICE
FROM SOUTH AFRICA'S
NO 1 CABLEMAKER**

1 First, plant a tree. But make sure it's a poplar, because poplar wood has a strong straight grain, a nice white colour and almost no gum or resin. Then, wait for about 18 years.

2 Next, cut your poplar into logs and seal both ends to keep the natural moisture in. Strip off the bark and saw the logs into 61cm lengths.

3 Now, peel these lengths into thin ribbons of wood, about the thickness of a matchstick and 14 matchsticks wide.

14
matchsticks
wide

4 Here comes a tricky part. Chop the ribbons into individual matchsticks and soak them in di-aminum phosphate as a safety precaution to stop your matches from glowing after they're burnt. Then dry them off, making sure you leave a moisture content of about 3%.

5 Now, be ruthless. Break any weak matchsticks and throw them away. Take the strong ones and polish them, to smooth off any splinters or sharp edges.

6 Once your matchsticks are nice and clean, dip them into molten wax and heat them up to drive the wax into the wood. This way your matchstick will burn with a steady flame.

8 While you're waiting, it's a good idea to make a matchbox to keep your matches in, with a striking surface to light them on. The box is fairly easy, just folded cardboard glued together to make an inner tray and an outer sleeve.

9 The striking surface is a bit more difficult. It consists mainly of amorphous phosphorus and an adhesive. Your match head won't light on anything else - that's another safety precaution.

7 Another tricky bit. Make a mixture containing potassium chlorate and sulphur, adding glue and starch paste to bind it together. Stir till it's good and creamy, then dip each matchstick in the mixture to form the head, and wait for it to dry.

10 Finally, fill your box with about 42 friends. If you practice long enough (say for 100-odd years), invest several millions of rands in your factories and machines, and keep re-planting poplar trees faster than you use them, you should be able to keep the price down to a few cents a box. That's about all there is to it.

AS LONG AS YOU'VE
GOT A LION YOU'VE GOT
A FRIEND, FRIEND





NATIONAL PRODUCTIVITY AWARDS

A Business Day Survey

Edited by MELANIE SERGEANT

Work-plan helps Sats cut handling costs

BEULAH BROWN

THE City Deep container terminal of the SA Transport Services (Sats) succeeded in cutting personnel cost for the handling of an average 170 000 containers a year by 35% through re-organising staff and an intensified motivation programme — without any form of industrial unrest.

This achievement qualified Sats for the 1986 National Productivity Institute Award.

The container terminal's two main functions are an operating function — the loading and emptying of railway trucks — and a cartage function involving the collection and delivery of containers to and from clients.

Before April 1982, the operating staff worked three eight-hour shifts a day.

This meant that crane drivers, internal managers and some administrative personnel had to work three eight-hour shifts a day.

The one-on-one-off method was used to load and empty trucks.

This method meant trains were pulled in under the cranes, and all containers had to be off-loaded before the train was reloaded again.

However, this system meant rails at the crane yard were engaged for unacceptably long periods and also the method ignored the arrival and departure patterns of the containers.

At this stage, the personnel cost per container was R14 62.

During April 1982 measurement of the labour productivity at the container terminal was initiated.

Bonuses for workers also came un-

Service involved with measurement

THE National Productivity Institute's economics and finance directorate is concerned with productivity measurement and financial advisory services aimed at improving the financial systems activities

substitution of one resource by another. Realist differentiates between the contribution to profitability of productivity measurement and financial advisory services aimed at improving the financial systems activities

Actual utilisation of resources is indicated on a graph. Financial services includes Design of management systems, where effective costing and financial information systems can be

Visser: Slower output caused by severe recession

MELANIE SERGEANT

IT is probably due to the recession that productivity in SA has not increased for the last couple of years, according to National Productivity Institute CE Jan Visser.

Indeed, the manufacturing sector has shown a 2% decline in productivity during the first quarter of this year compared to the same period in 1985.

"However, while we often use labour productivity as a yard-stick, it should be remembered that productivity extends right through to areas such as the utilisation of capital and other resources," Visser adds.

Also, it should be noted that when less is produced per capita, there is less available to consume, so with 2% less produced per worker, the standard of living cannot improve — it will drop instead.

Visser stresses one cannot blame only labour — the general slide in economic conditions is also to blame.

Low turnovers

"Companies are generally not increasing turnovers and one cannot drop one's inputs if the outputs are not increasing."

From the years 1972 to 1985, SA's GDP per capita has dropped by an average of 0.2% per person/year.

Compared to other countries, this is a stunning statistic. In the US, for instance, GDP/capita increased 1.4%/person/year; in Japan the percentage increase was 3.2%, and in Taiwan 6.2%.

"This indicates amply that SA is not catching up with the rest of the world in terms of productivity. These statistics show that things are not what they should be."

"However, interest in improving productivity in SA has grown substantially. Both the public and private sectors have realised that it is essen-

tial to improve productivity in order to raise SA's standard of living."

Visser says the significant moves already taken to increase productivity are gratifying.

He points to grant corporations like Escorn and Iscor. "They are very actively pursuing productivity-improving policies," he says. "And last year the Department of Posts & Telecommunications made substantial refer-

THIS is National Productivity Week and yesterday several companies were recognised for their efforts with a National Productivity Institute award. Business Day highlights the companies involved.

ence to improving productivity in its annual reports.

"And government at large has said on many occasions that it is active in this area. The Minister of Finance, for instance, has appointed a work group from the private sector to look at the effectiveness of the civil service."

"While we cannot expect all these productivity-related drives to bear fruit in the short term, we can certainly look forward to them bearing fruit in the medium-term," Visser adds.

He points out that generally, South Africans are not skilled enough in productivity-improving techniques. This even includes managers in businesses, and is a shortcoming that makes it essential for more people to be trained in:

- productivity measuring techniques,
- productivity problem identification, and

□ the implementation of productivity techniques

"There are courses run by the NPI, as well as several available from management consulting firms," he points out.

"The NPI has established that the return on the investment in courses is at least 10-times the original amount spent," says Visser.

And the lack of management skills in SA is likely to become more acute in the years ahead, Visser adds.

"We therefore have a great responsibility to develop management skills among the black community."

"Here, it is essential that better-educated South Africans are not intimidated of people who don't perform well as managers on the short-term. They should remember that a mammoth step has to be taken to cross from Third to First-World economies."

Black management

As yet, there has been no organised effort to come to grips with black management development. The NPI is currently investigating this problem, and hopes to initiate a new drive in this field.

Another problem, according to Visser, is the amount of concern in the minds of labour unions to resist productivity improvement.

"In the recession, when options for productivity increases are limited to the reduction of inputs, it does happen that fewer resources, including labour, are needed."

"If companies do increase productivity, they should try not to cut their staff numbers."

"And unions should continue to think in the way they have done until recently, when they realised that better productivity was essential to negotiate better deals with employers."

HL & H's new End-Grain timber-props quicker, better



WORKERS at the Welkom End-Grain factory's new production line

Business Day Reporter

LAST July, HL & H Mining Timber, a supplier of timber support systems to the gold and platinum mining industries, introduced a new timber support concept, called End-Grain, designed to save time and improve installation efficiency.

In 12 months of underground testing, End-Grain support blocks reduced shaft installation time by between 25% and 30%, and cut fine losses — the amount of gold dust lost between supports after blasting — by up to 80%.

Demand for the new product — actually a combination of a wooden post and two wooden support blocks — took off overnight, and HL & H was faced with a shortage of production capacity. Demand for the new blocks required a saw that could cut the product at a rate of 170 a minute, the best saw available previously ran at just one-fifth of that rate.

To accommodate the new demand, the HL & H Orange Free State district, under GM Jan van der Merwe, designed a multi-cross-cut saw and, within two months, an on-line production operation was able to produce 10 000 units each shift — an increase in productivity of four times.

HL & H constructed four production lines in its Virginia and Welkom branches between November 1985 and last March. The processing techniques will soon be transferred to the rest of the company's operations in Fochville and Klerksdorp.

Demand for the End-Grain product, meanwhile, is expected to reach 2m units a month by May 1987, from 100 000 units in January 1985. This is largely due to improved load-bearing capacities and facilitated mechanical handling. The SA mining industry now uses 2.5m tons of timber supports annually.

The "Trim-Slab" block used to build the End-Grain product is cut on four sides rather than two, improving the contact between slabs in the underground support pack. In addition, the blocks provide compression strength up to 50% higher than traditional concrete blocks, the company says.

The assembled units weigh less, and can be transported with greater ease than older units.

Traditional blocks can be packed in loads of 100 units weighing one ton, the End-Grain blocks can be loaded in packages of 120 units weighing just 0.66 ton.

Products and services include productivity measurement for management and financial services. The first involves

□ Corporate measurement for management, which uses the NPI's measurement model Realst: (Resource Allocation Strategist) to assist management in identifying those areas of an organisation where productivity improvement is most needed to generate better profits

It measures the separate contribution of each resource to the overall productivity of the organisation, thereby establishing the cost implications of corrective action or of

product on cost or, respectively, productivity and resource prices. REALST software is available to organisations as an extension of their management information systems

Also included is □ Measurement of performance against objectives, which uses Omax (objectives matrix)

This is a simple measurement model for use on a lower organisational level complementary to Realst. Omax is eminently suited to service organisations or elsewhere where it is difficult to quantify outputs

It requires participation from both employees and management

organisation. This may include a cash flow analysis.

□ Financial performance analysis, where visual inspection of an organisation's financial situation and a financial ratio analysis are followed by a report with recommendations for improvement. The Realst measurement model is applied in order to identify the contribution of each resource to overall performance.

□ Industry Data Banks, where participation in the NPI's industry data banks gives SA manufacturers access to valuable information about their competitiveness, both locally and overseas

HL&H MINING TIMBER

YOUR SUPPORT FOR LIFE

HL&H guarantees to supply your timber support needs. And we're in a position to do just that.

Our sister division, HL&H Forest Products, owns and leases more hardwood timber than any other timber grower in the country. It has a single-minded goal: that of generating and ensuring the supply of sufficient timber to meet the needs of each and every customer.

At HL&H Mining Timber, our infrastructure is

geared exclusively to meeting the timber support requirements of the South African mining industry. And we've backed our commitment with extensive research and development programmes, aimed at cost-effective product utilisation for our customers.

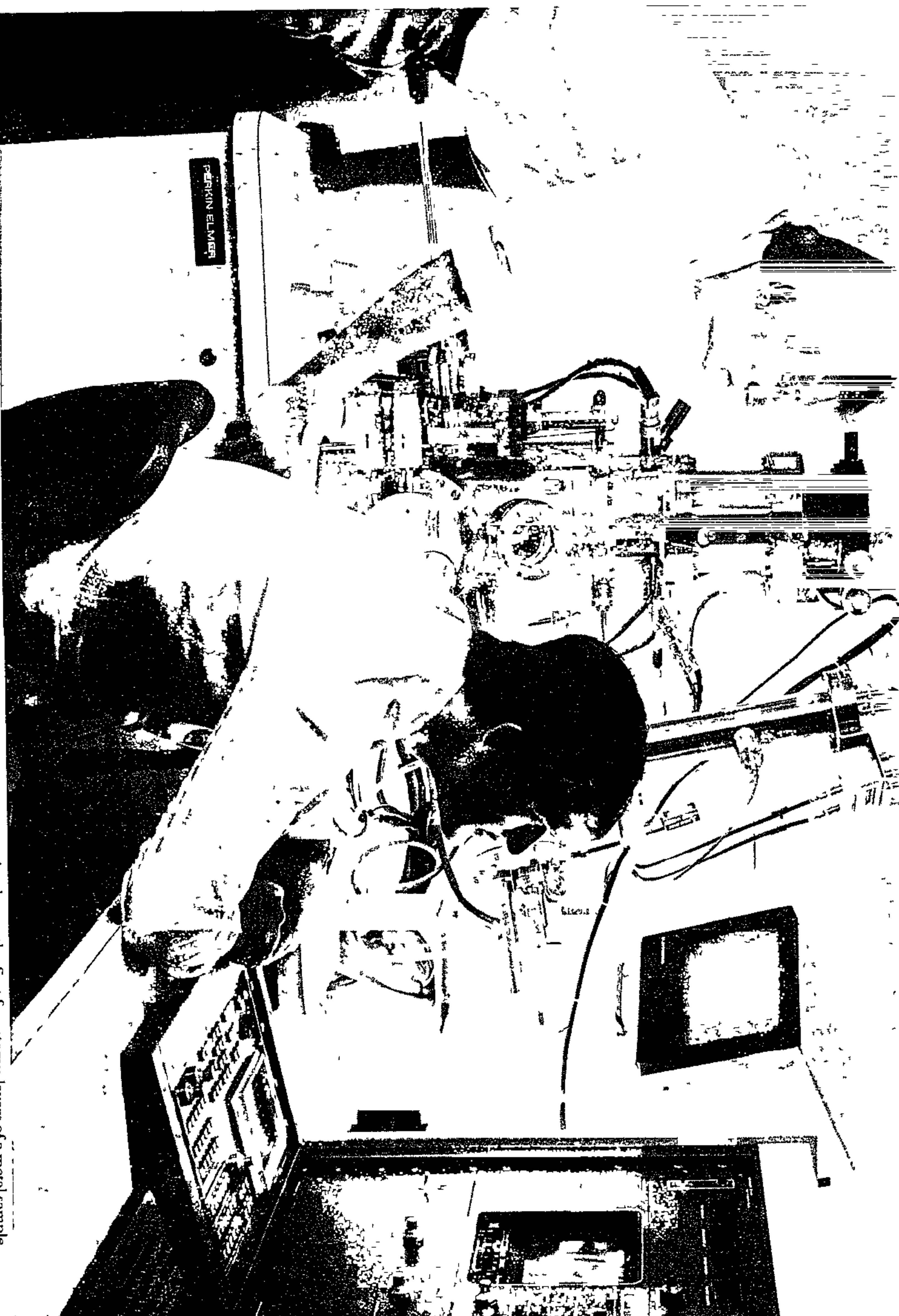
HL&H customers are guaranteed of their long term support timber needs. Our future depends on it!



A Division of Hall Timber Products (Pty) Ltd.

Visit the HL&H Mining Timber stand in Hall No. 5 at the Electric Mining Exhibition from September 15-19.

BRIDGE 117



Analysing the first few atomic layers of a metal sample with Iscor's modern surface analyser

Is there room for me in the front line of technology?

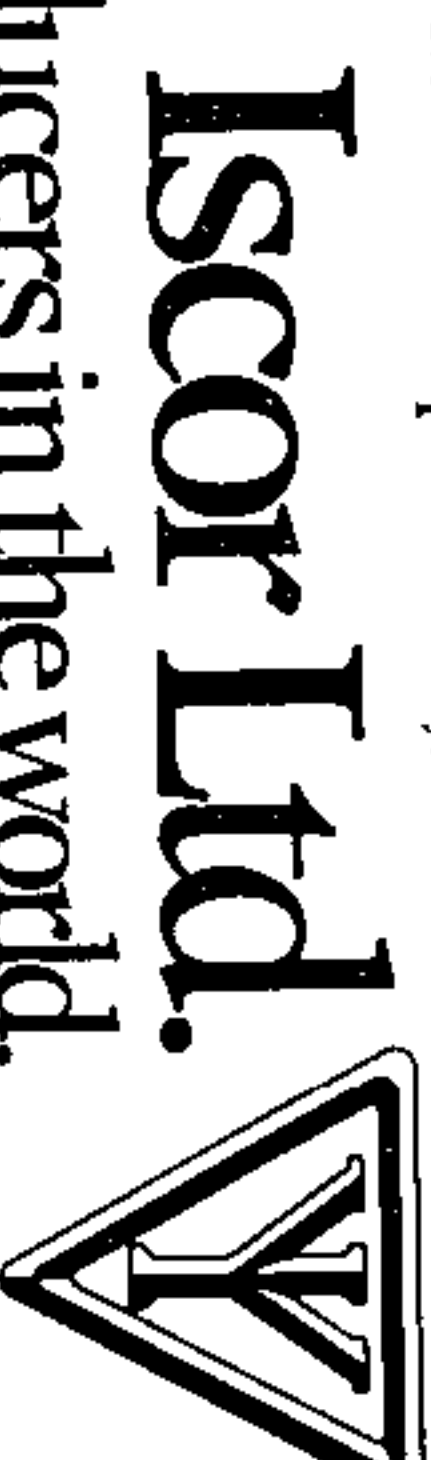
heavy-duty lubricant based on water? Or to design sophisticated electronic equipment to replace obsolete ones? Or to find a way of doing a R10 million repair job for only R30 000?

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NATIONAL PRODUCTIVITY AWARDS

A Business Day Survey

Certificates of merit for SA companies

1985 NATIONAL PRODUCTIVITY CERTIFICATES OF MERIT

Alsat for the improved productivity of its aluminum smelting plant
Its average energy consumption in Kwib per ton of primary metal produced made it the world leader in 1982 and 1983

ICI SA for its improved productivity in the computer field making for increased profits
Between January 1982 and December 1984, trading profits soared through a 57,9% improvement in the productivity of capital employed in inventories and debtors and a 57,7% improvement in labour productivity

Lusaba Sawmill for its overall productivity gain of 30% marked by a 16% improvement in turnover
In two-and-a-half years, a loss was changed to a profit by revamping and upgrading existing equipment, work methods and labour utilisation

Rowen (SA) Limited, Jacobs, for the Japanese productivity improvement programme which has increased turnover from 1983 to 1984 by 56%, its net profit (before tax) by 280%, its sales per head employed by 43% and its sales per square metre of floor space by 56%
Quality Circles and training in productivity awareness are operative on a regular basis

Sasol 3 for the productivity improvement ideas generated by the Special Maintenance Services team
This specialist team for major scheduled maintenance at Sasol 3, Secunda, was responsible for production and material savings in excess of R30m in 1984

Stamtec for productivity improvement through the introduction in 1984 of the Management of Administrative Productivity programme in all branches
Staff was directly involved and trained to measure and monitor performance
An extensive business systems planning study was also undertaken

Disabled show workshop skills — and sheer guts

A PROTECTIVE workshop for severely disabled blacks at Guguletu in the Cape has experienced an astounding surge in worker productivity.

In the face of tremendous odds, KwaNothemba has turned a negative balance during the financial year ending March 1984, into a 236% increase in income during the 1984/85 financial year.

Despite the difficult economic climate, the momentum was maintained and figures for the first 11 months of the 1985/86 financial year indicate a further 313% increase in income from sales.

The most powerful motivating factor for the workers has been the satisfaction of knowing that, despite their permanent disabilities, they were becoming participating and contributing members of the community.

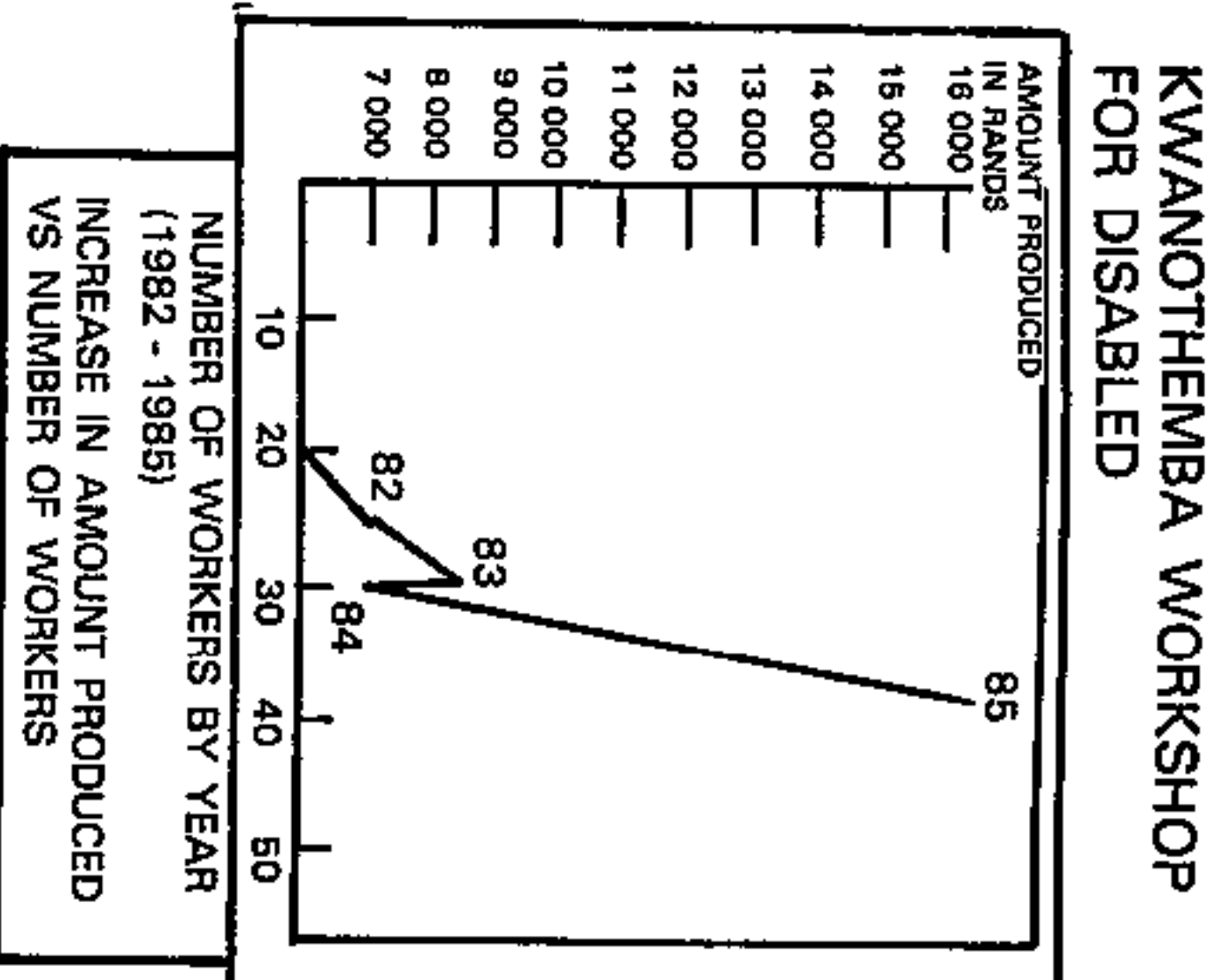
KwaNothemba, a multi-diagnostic workshop for black disabled adults, opened in 1981 and is registered as a fund-raising and welfare organisation.

Its "renaissance" began in August 1984 when the administrative secretary (in the absence of the manager, who had resigned), the two supervisors and the workers began determined efforts to secure contracts, improve quality of workmanship and guarantee delivery dates.

Industrially orientated

The workshop is managed by an elected management committee, and administration is handled by senior social workers on the staff of the Association for the Physically Disabled, Western Cape Other agencies taking part include the Cape Mental Health Society, Cape Town and District Association for the Blind, and SA National Epileptic League.

The workshop is industrially orientated and aims to perform productive work which can be integrated with the normal demand and supply economy. However, problems include the fact that there are fluctuations in the number of workers — often due to



Claire Pickard-Cambridge looks at a Guguletu self-help project for the disabled.

hospitalisation for treatment or illness.

The significance of KwaNothemba's productivity also has to be seen in the light of several factors.

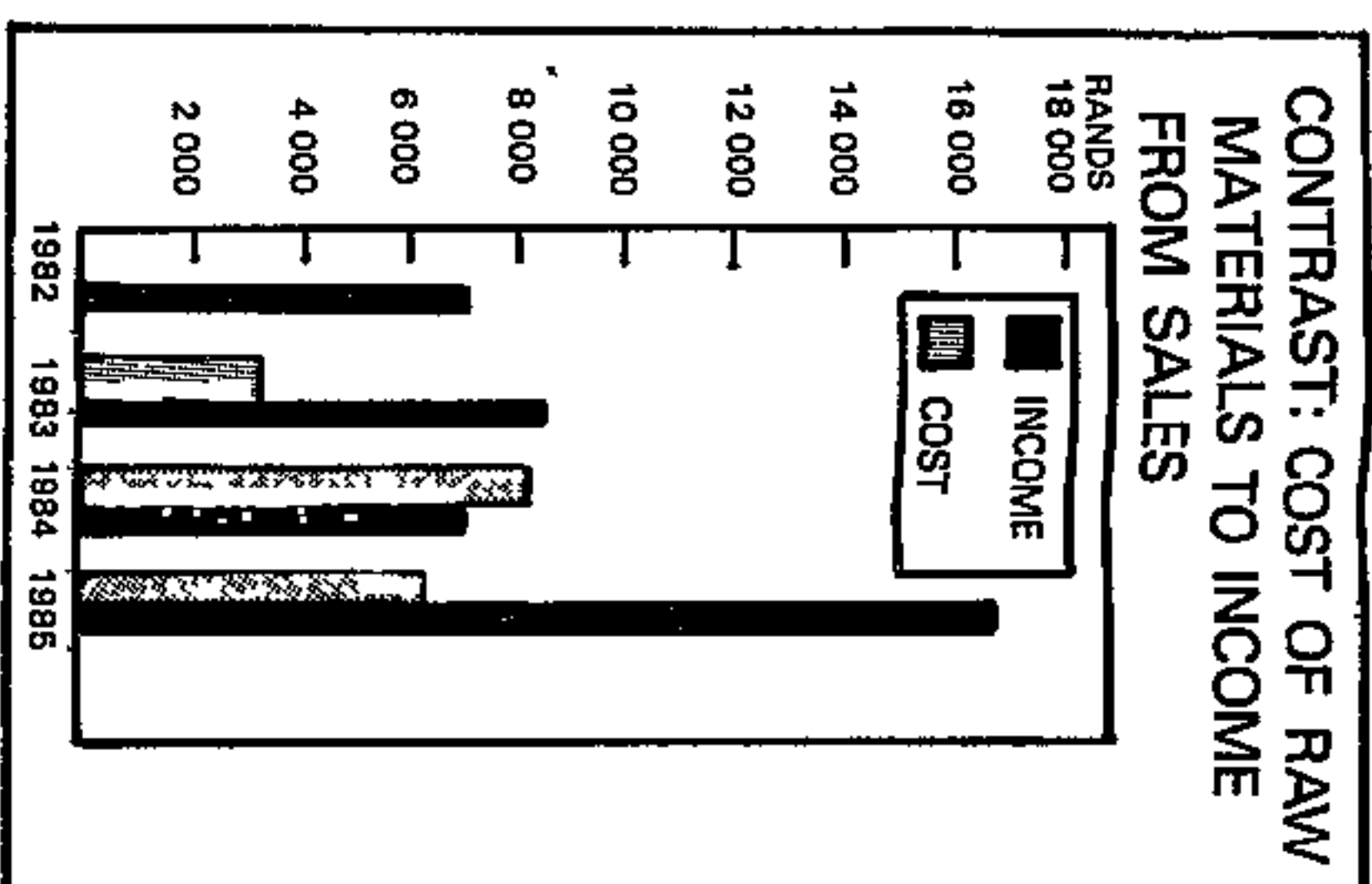
Because of the severity of their mental and physical disabilities, workers are precluded from ever functioning within the open labour market and many of the workers have had little or no education.

The workers usually come to the workshop without having had any exposure to a work situation and lack work experience, skills or even work habits.

The only alternative to their employment in a protective workshop is total isolation at home and permanent dependence on charity or other assistance.

Three distinct areas of specialisation — sewing, woodwork and shoe-making — have been established at the workshop.

Workers using industrial sewing machines produce curtains, bedcovers and pillow cases from cloth off-cuts donated by a textile factory. Imaginative matching of textures and patterns, good workmanship and affordable prices resulted in a tremendous demand for the products, despite the fact that the workshop is



situated in a depressed black residential area.

Small items of furniture and household and educational equipment are produced in the woodwork section. In this section energies have also been concentrated on upgrading the quality of products by means of more effective supervision, and experienced workers assist with quality control, supervision and worker motivation.

Started shoe section

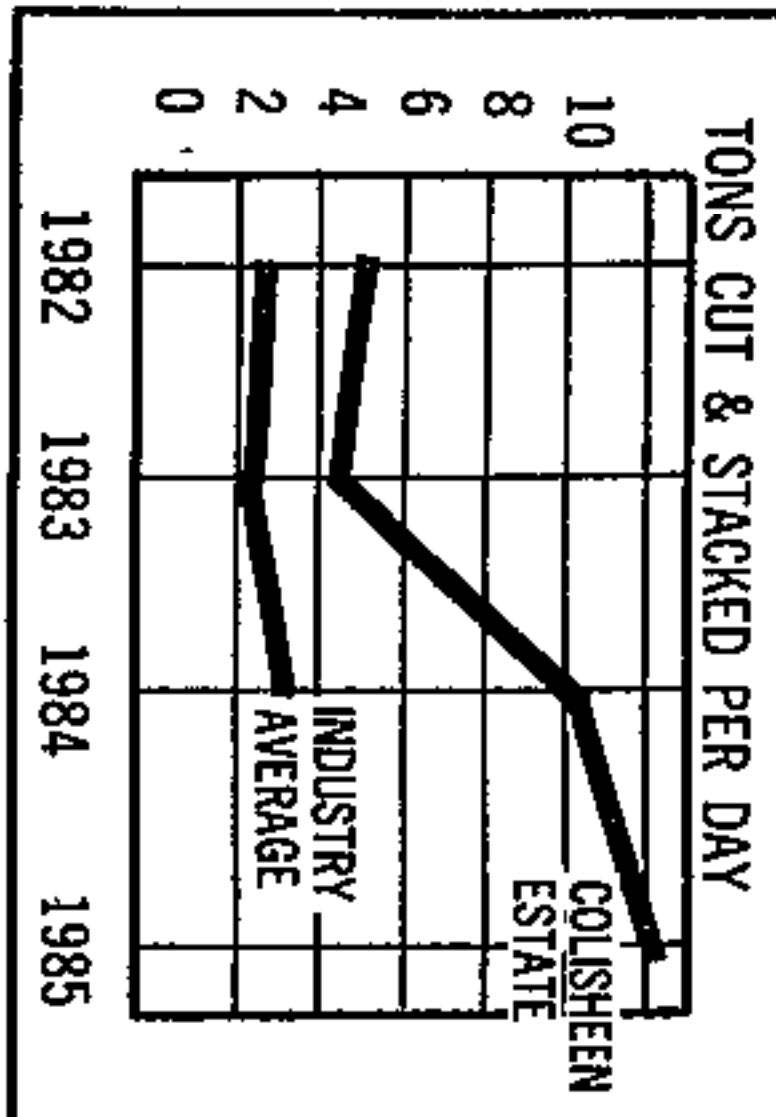
Worker motivation, high quality products and the determination of all the workers to meet delivery dates created a sound and still growing market for children's furniture, toys, bookcases, benches and church pews.

The shoe section was started in September 1984 in an effort to find meaningful work for six people who could not be accommodated in the sewing and woodwork sections.

After receiving training at a shoe factory for two days, the sewing section supervisor taught the workers to hand-stitch leather moccasins. When they had mastered the various stitches, the shoe factory awarded a subcontract to KwaNothemba. The section has continued to expand and now gives employment to 22 workers.

Adendorff proves to be a miracle-worker

OUTPUT PER CANE CUTTER



PETER WALLINGTON

was allowed to choose which type of cutting implement he wanted to work with as well as selecting the size of a working area.

In addition Adendorff gave the workers written feedback on their performance on a daily basis within 24 hours.

Secondly, the tractor fleet was reduced by 25%, and this resulted in a 25% increase in productivity.

Three Escom garages jacked up their vehicle-maintenance systems

ESCOM's Witbank, Hendrina and Kriel service garages in the Eastern Transvaal distribution region shared a productivity award for improvements to their fleet vehicle-service management system.

At Witbank, largest garage of the three, each vehicle was registered on a computer, and its service date and status printed out monthly.

Transport officials, appointed in each Escom department, arranged with drivers to have vehicles serviced on time. Under this system, vehicles that previously had been "lost" and never serviced are required now to appear for pre-determined services.

Witbank garage also established a network of field service stations, each manned by a mechanic and a labourer, that service vehicles on-site. Witbank applied the new productivity system in several stages.

It introduced a maintenance working schedule designed to show which vehicles were due for service and which artisans responsible for each

service. Work request forms, completed by transport officials in each department, and standard time allocations for each procedure, facilitated the process and provided accurate time measurement.

Productivity groups from all three garages determined standards for quality, production utilisation, cost, performance efficiency and so on. In addition, the groups created the Objective Matrix — now the centre of the productivity management system.

Beat standard time

The matrix applies scores to each level of performance in important productivity categories, assigning specific weights to maintenance cost per minute, the ratio of standard hours to actual hours, number of returned vehicles and other measures. Productivity improvement has come steadily since the measures were first introduced three years ago. The Witbank garage, maintaining a relatively stable workforce over the

Egg Board makes it with enzymes

THE extraction of an enzyme called Lysozyme from eggs — without disturbing the remaining proteins in the egg — for the export market has led to the doubling in rand value of egg white.

This process, patented by the E

The Egg Board has doubled the rand value of egg white. Bewan Brown reports on an innovative enterprise.

The process, patented by the E

ed only frozen whole egg pulp (egg without the shell) and small quantities of egg powder.

It then became clear that the industry would benefit significantly from the export of a

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Productivity Institute Award for 1986

The process for the extraction of Lysozyme was developed over several years, with the biggest improvement being shown over the 1985 period

Lysozyme is one of the 12 known proteins present in egg white, and is exported mainly to the European market. Some 925kg of Lysozyme at R214/kg are exported there, with negotiations underway for an even bigger contract to the Japanese market.

It is expected 3 000kg will be produced this year. Complete egg white sells at R600/1 000kg. It takes 1 000kg of egg white-pulp

Sappi beats price hikes

working on new system

SAPPI Forests, last year's National Productivity Award winners, was forced to look at new ways of bringing pulpwood to its Ngodwana mill after road and rail transport costs escalated during 1983

To eliminate the need for the re-handling of loads as well as the use of rail transport, a revolutionary system of truck-tractor and trailer units was developed

This was a mechanical linkage with automatic steering of trailer wheels by the running of the truck-tractor. This causes the trailer wheels to exactly follow the tracks of the truck-trailer, and allows large vehicles to operate on narrow mountain roads in complete safety

Research on the system started in June 1982 and prototype testing began in August 1983. Implementation took place in January 1985, where the self-steering axle trailers have made it possible to transport pulpwood directly from plantation to pulp-mill

Since then, short-haul transport, re-handling and rail transport have been wholly eliminated, and labour productivity has improved by 52%. In addition, time utilisation of vehicles picked up

sharply. Profitability increased by 34% thanks to a reduction of R6.43 per ton in the transport and handling cost of pulpwood

to extract three kilograms of Lysozyme, thus doubling the value of egg white from R600 to R1 200 if the Lysozyme is taken into account

A process to extract the Lysozyme without damaging the rest of the egg white was developed and completed by the Council for Scientific and Industrial Research (CSIR) in 1978 and 1979

The Lysozyme production process consists of extraction of the enzyme, purification and then dehydration

The production cost per kilogram is R52, leaving a considerable profit margin at a selling price of R200

Up to 1962 the Egg Board export-

However, the market gradually shrunk, and in 1980 the export of egg white was stopped because of declining prices

It was after this turn that the technical department of the Egg Board started looking at the possibility of saving on production costs through concentration of products and the extraction of specific proteins

The development of the project of extraction of Lysozyme resulted in a total additional income of R618 930 per annum for the Egg Board. This has led to the Board becoming less dependant on statutory funds

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4/9/86 SMK

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By Frank Jeans

South African business, so often bemoaning the low level of productivity, could well be asking: Does the fault not lie with management and its inability to get the message across to the work-floor that "shareholder" and "profit" are not dirty words?

Indeed, is the kernel of the low output problem the failure of the workers

Low productivity: Are managements to blame?

to understand why a company must run effectively and the way that this leads to "couldn't-care-less attitudes"?

And while much is said about the need for com-

pany communication, there is a lot more to that than "just telling people"

Mr George Chamberlain of the Human Resources Division of the National Productivity Institute puts it this way: "Communication is all about transferring information from one person's mind to another to bring about understanding and, in this instance, a change in behaviour."

"Once this has happened we will have taken the first step towards motivating employees to be aware of, and to improve productivity."

Mr Chamberlain was speaking at a recent seminar in Johannesburg on the need for attitudinal change in the workforce.

And he gave an example of some of the mis-

conceptions he has found among employees.

- The boss takes all the money home in the briefcase at the end of the week.

- When the boss needs more money for machines, the Government gives it to him.

- The company gets its raw materials free.

"Attitudes such as this only suggest that these workers do not understand the workings of the free enterprise system which can only be to their benefit, nor does anyone go out of his way to make them understand," said Mr Chamberlain.

EFFECTIVELY

"Communication is not putting a slip of paper on the notice board and a man has got to under-

stand why he has to start work at 8am.

'And he has got to learn why it is to his advantage that company resources are used effectively.'

Mr Chamberlain said it had been his experience, particularly in South Africa, that wrong perceptions of an organisation's structure had widened the loyalty gap and in many cases, the lower-paid worker believed the supervisor owned the company.

"That is because he never gets the chance to meet the boss," he said.

"Communication by participation is the answer to many of our productivity problems today."

PC told of need for growth

CAPE TOWN — The only way to create job opportunities for the country's growing population was through economic growth which in turn could be stimulated only by higher productivity, the executive director of the National Productivity Institute, Dr. J. H. Visser, said yesterday.

Giving evidence to the Committee for Economic Affairs of the President's Council, he said a classic revolutionary pattern had developed in South Africa, which was the same that had been in evidence in every revolution in the world.

The best way to counter it was to improve living standards because hungry people provided a perfect audience for those who preached revolution.

South Africa had made the tragic mistake of trying to buy higher living standards instead of earning them by increasing productivity.

In the last 10 years wages of factory workers had increased by about 20 per cent but productivity had dropped by two per cent.

It was far more important to increase productivity because it led to higher living standards. It had been found that as standards rose, population growth, which was one of South Africa's major problems, declined.

He said that one of the requirements for increased productivity was a stable government.

Revolution was a sure way of reducing productivity. Any political changes should take place in a way that stability was maintained.

People should be made more aware of the need for productivity by way of campaigns.

Because of their historical abundance of natural resources, labour and overseas capital, South Africans had never been aware of the need for productivity. The situation had now changed and the emphasis had shifted to manufacturing products which could compete on the international market.

Dr Visser said industrial countries overseas

relied heavily on productivity in their factories whereas South Africa was still caught up in a colonial and Third World philosophy.

Shock survey pinpoints why productivity levels in South Africa are in a slump

Management's 'black hole'

By Sheryl Raine

An alarmingly high proportion of businesses of all sizes do no management training or limited training. This is a major reason for poor productivity levels in South Africa, says the National Manpower Commission (NMC).

The NMC together with the National Training Board today released the findings of a survey on the training and development of managers during 1983/84, conducted by the National Productivity Institute (NPI).

The survey, which was limited to the private sector and training institutions, was not intended to draw conclusions. But at the end of the day the researchers felt compelled to make some conclusions "especially because on the one hand, they point to a disturbing situation and on the other they are quite encouraging for the future".

The NPI reported a poor and disappointing response to questionnaires sent to the business sector which included mining, construction, manufacturing, retail and wholesale trade.

INDICTMENT OF THE SECTOR

Only 98 organisations rendered responses which were usable, 4.5 percent of those polled. Together respondents employed about 16 000 managers.

"If this was to serve as an indication of the interest of business in the training of the people who have to direct and control its activities, it would have to serve as an indictment of that sector, at the same time serving to indicate where one of the most important causes of the generally low level of productivity in the country lies," said the report.

"The investigation also demonstrated beyond

BUSINESS SECTOR - THE NUMBER OF MANAGERS WHO RECEIVED TRAINING, BY FUNCTIONAL AREA, 1983

FUNCTIONAL AREA	NUMBER OF MANAGERS WHO RECEIVED TRAINING			
	WHITES	%	OTHER POPULATION GROUPS	%
General management	2 212	91,9	194	8,1
Marketing	686	86,3	109	13,7
Purchasing	22	88,0	3	12,0
Production	457	69,6	200	30,4
Finance	503	97,3	14	2,7
Administration	758	88,4	99	11,6
Human resources	2 398	91,2	231	8,8
Public relations	3	100,0	0	0,0
Other	168	97,0	25	13,0
TOTAL	7 207	89,2	875	10,8

Number of respondents: 78

dispute that there must be a disturbingly large number of firms, even some of the bigger ones, that give no or only limited attention to the training of their managers. This is a further indication of where the cause of low productivity lies."

At least 87 percent of large, medium and small organisations which responded to the questionnaire did no management training at all. In many other cases information about training was not available, indicating that these businesses also

did limited or no training.

Middle management received most attention as far as training was concerned and top management least.

The number of whites who received management training was significantly higher than for other population groups (see table).

Regarding training institutions, the report said 10 universities, nine technikons and 39 private institutions responded from a total of 152

Nine of the 10 universities said they accepted people of all races while one said blacks were admitted on approval of the university council.

Four of the technikons said they accepted all races while three said they allowed blacks on condition they could not study a particular programme at a black institution.

All private institutions accepted all races on management courses.

In all cases, top management was the least targeted group for training. Universities saw senior management as having the greatest need for additional management training while technikons saw middle management as the main target and private institutions aimed their programmes at all management levels.

All training institutions earmarked human resources as a high priority.

LACK OF TRAINING FACILITIES

The report noted that there was a lack of training facilities and experienced trainers. Care would have to be taken not to spread the available facilities and manpower too thinly and serious consideration would have to be given to achieve a much higher degree of co-operation and sharing of facilities and manpower.

Generally the investigators found an over-concentration of training in the field of general management and noted that fields of knowledge like human relations, of key importance for any managerial activity, were suffering to a certain extent.

The report suggested several follow-up studies were needed, including investigation into public sector management development and research into methods to stimulate management training

BUDAY
29/10/86

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DAVID FURLONGER
Industrial Editor

INDUSTRIAL and scientific research in SA is about to undergo a fundamental change in direction.

The Council for Scientific and Industrial Research (CSIR) is preparing to join the rat-race and become an active partner in the country's industrial development.

One of its main objectives will be to play a major role in the process of technology transfer — the means by which new technologies are developed for local needs.

A policy document setting out the CSIR's new role says "The CSIR's mission has become blurred. In its efforts to maintain an optimum balance between contract and basic research, it plays several fundamentally different roles, and these have not been clearly delineated."

"This in turn has led to an absence of clearly defined corporate goals, strategies and tactics. Not enough attention has been given to the implementation of research findings and seeing that new technology was successfully transferred to its sponsors. The predominant research culture has been academic-inclined in character, rather than goal-orientated."

Cutting overheads

In shedding its "boffin" image, the CSIR will also become a hard-headed business. Overheads will be cut and each stage of research costed in advance. In addition to cash received for contract research work, it will seek dividends and royalties from industry for products and processes it helps develop.

Says CSIR president Chris Garbers: "If you succeed in making something pay, we will take something for royalties."

The CSIR's profit-motive is guided partly by government's decision to re-assess, from 1988/89, the average 4%-6% increase the council has received in funding, and to impose zero-based budgeting.

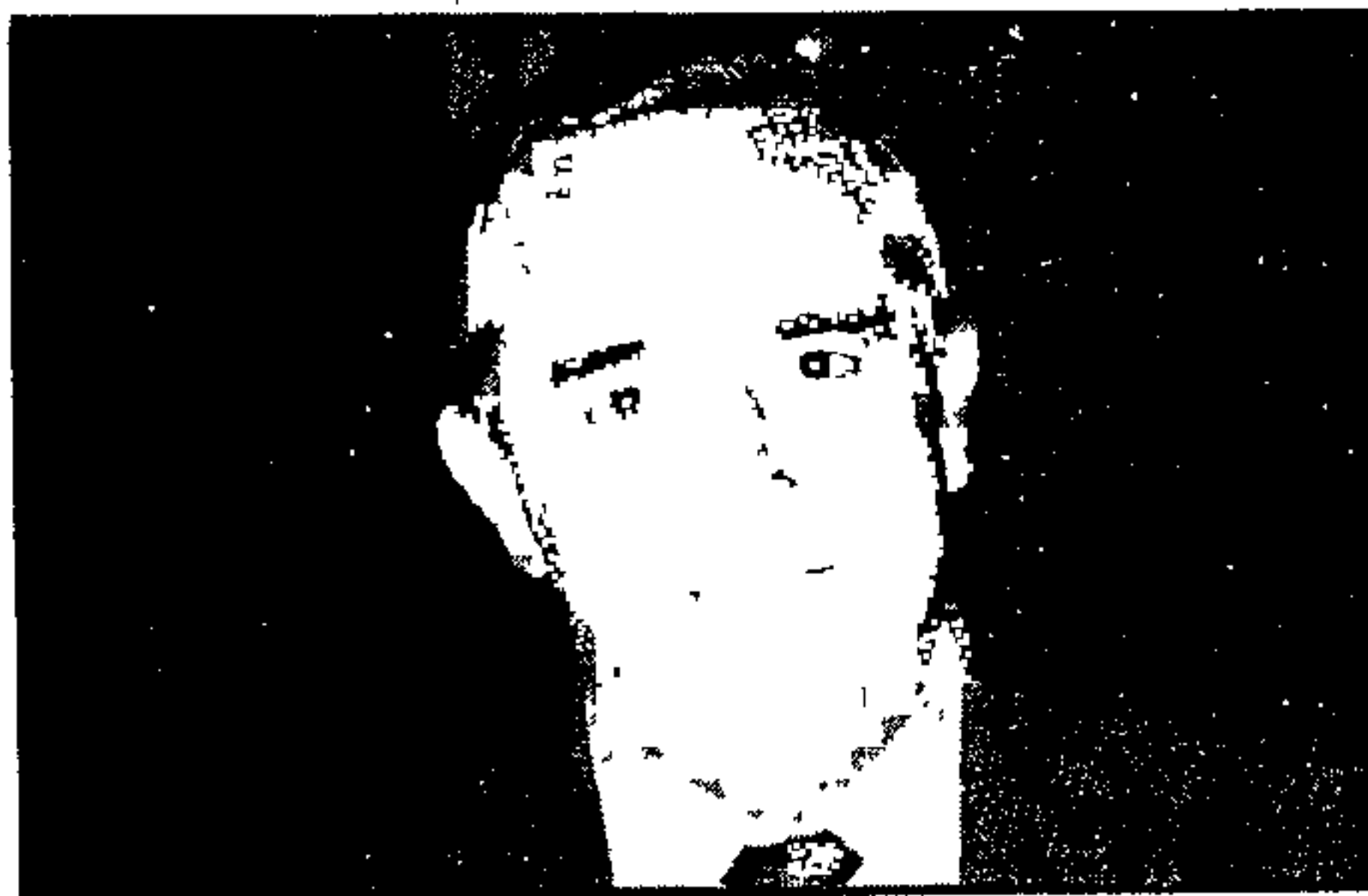
Should the CSIR make substantial profits in its new deal with industry, will this persuade government to tighten its purse strings still further?

"I don't know," says Garbers, "but I believe there will always be a need for government input for infrastructure and to enable something like the CSIR to take a long-term look at research needs."

In becoming market-orientated, the CSIR will move away from the public-service mentality of jobs-for-the-boys.

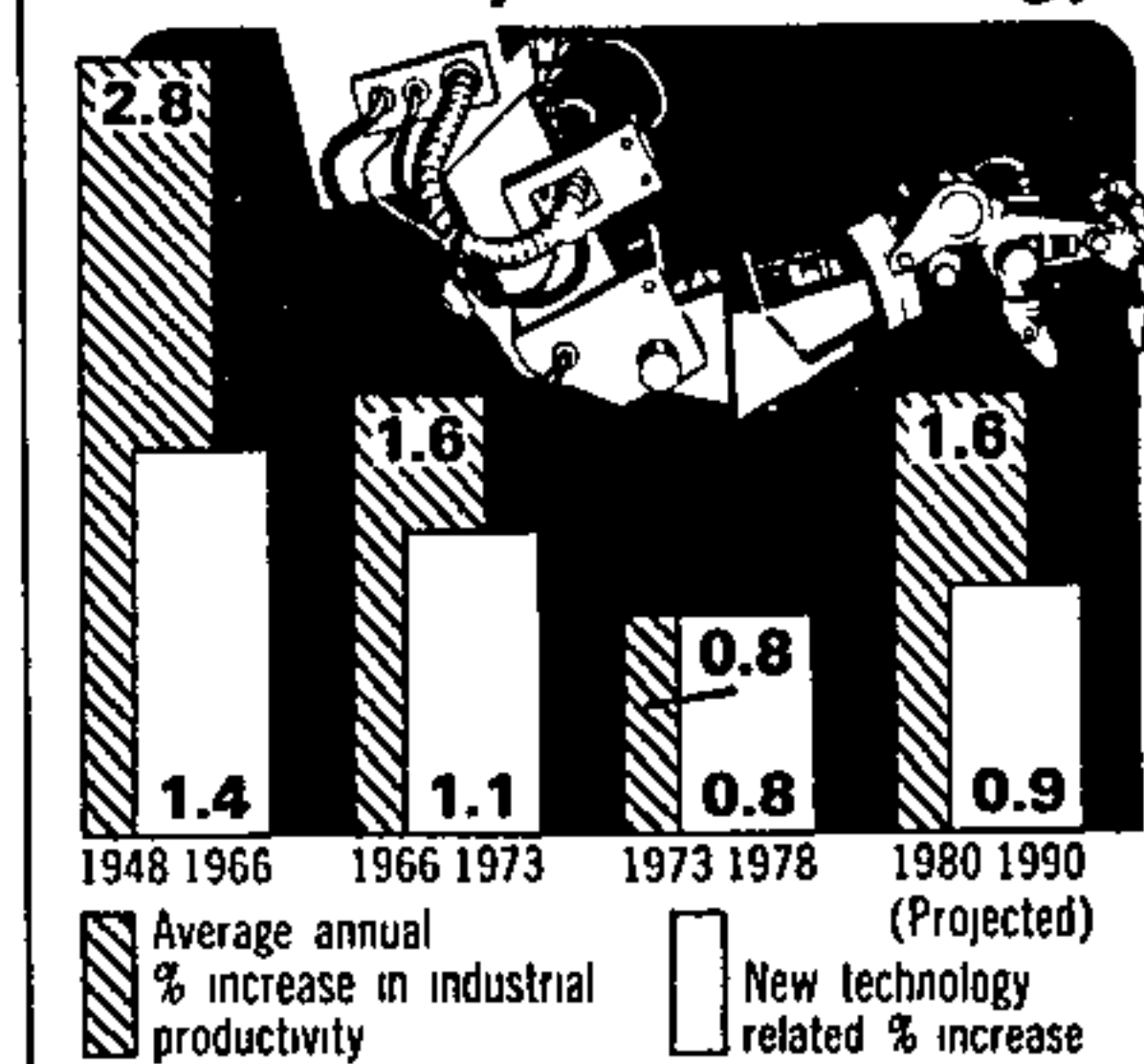
"It will have to compete aggressively in the marketplace for those skills it will need in entrepreneurship, innovation, management and leadership, as well as scientific and engineering expertise," says the policy document. "Its staff-recruitment policy will become one of greater flexibility and autonomy, which acknowledges success and penalises lack of achievement."

The CSIR's immediate task — assessing technology-transfer needs — will be achieved through privatisation of the SA Invention Development



□ GARBERS... 'We have critics and supporters'

Productivity and Technology



CSIR to play more active research role

Corporation (Saidcor). The new company will be controlled jointly by the CSIR, the Industrial Development Corporation and private enterprise.

The company will have a total shareholding of R50m-R100m.

Technology needs will be assessed through a system of "technology auditing." Experts will examine a company's technology requirements, see what is available in-house, what locally, and what must be brought in from overseas.

"Priority will be given to those companies with the necessary motivation, need and maturity to benefit from it," says the document.

Overall technology needs of industries will also be assessed. But this will not prohibit single companies from seeking assistance, Garbers adds.

"I don't want to be proscriptive. Industry has to ask for a technical audit. We're not going to impose it."

Determining needs

"We would like to operate over the whole spectrum — from major operations to small industry. Where we deal with the latter, we would work closely with the Small Business Development Corporation in determining needs."

He says initial response from industry has been mixed. "We have critics and supporters. On the whole, reaction has been very supportive. Some individuals say it should be left to industry itself."

The purpose of technology transfer is to overcome the lack of research and development available in SA. The small market and limited research facilities make it both impractical and uneconomical to operate at levels which can be achieved overseas.

In order for SA not to fall behind in

industrial technology, SA must make use of local and overseas development and adapt it to SA conditions and needs.

The sanctions threat — in addition to a growing reluctance by international scientific organisations to maintain relations with SA — makes such a process vital to maintain SA's industrial development.

Garbers admits "We have already experienced problems in getting overseas technology." But he adds "There will be no poaching. We will be very straightforward."

The danger remains, however, that SA may become less straightforward if its development is threatened.

Pressed on whether SA will be forced to pirate technology, Garbers says "It isn't something that has happened in the past. If we come to that bridge, we will have to cross it."

"It must be borne in mind we are doing 0.3% of the world's research and development effort. There is an enormous amount of development overseas. If we are kept away from that development, it will hurt and erode our ability to be competitive."

'A major cause of high inflation'

BUSDAY

Liblife review 29/10/86 slates low SA 247 productivity

SOUTH AFRICA'S productivity is one of the lowest in the industrialised world and is slowly eroding the country's competitive position in world trade, Liberty Life says in its latest economic review.

Low productivity is also a major contributory factor to a high inflation rate

"Given the spectre of sanctions, the country will need to maximise its resources and the area of productivity is one which should be given the highest priority by both the private and public sectors," Liberty says.

"As is common in an economic downturn, labour productivity is on a declining trend as employers attempt to retain staff in the face of low demand."

Labour productivity as measured by real gross domestic product per worker was 2% lower in the first quarter of 1986 compared with the first quarter of 1985, after having fallen 1% in 1985 and 3% in

MICK COLLINS

1984.

The review says that the slight upturn in economic activity, taken together with government's programme of special training and job creation, has resulted in the seasonally adjusted number of registered unemployed declining slightly so far this year.

In January this figure stood at 137 700 but by July it had declined to 127 700.

Nonetheless, Liberty says, employment demand remains at a weak level and this, together with unofficial estimates of the level of black unemployment, are worrying factors for the immediate future of the country.

Adding to the labour problems is the fact that real incomes continue to decline and by the end of the first quarter of 1986 they were 7.7% below the first quarter of 1985.

No official statistics are available yet for the second quarter

Monday, 30 minutes on Tuesday and 20 minutes on Wednesday.

"Anyone got 10p for the (electricity) meter." — Sapa-AP.

Productivity up 4,2%

WASHINGTON — US manufacturing productivity increased at an annual rate of 4,2% in the third quarter of 1986, the government reported yesterday.

But as US industry continued to hold down labour costs to compete with foreign imports, the efficiency with which the rest of the US economy was producing goods and services remained limp, the Bureau of Labour Statistics said.

Non-farming business output rose at an annual rate of 3,2% in the quarter, compared with an 0,6% rise for the same period last year.

While labour costs increased at an

annual rate of 2,3%/hour and 2,1%/unit-of-output in the second quarter, hourly compensation for workers fell 0,2% after accounting for inflation. That reversed a 2,8% annual increase in "real" hourly compensation in this first half.

The US government had reported productivity dropped 0,5% in the first quarter. But revised figures released yesterday showed productivity rose 0,5% from April-June.

That relatively anaemic performance in improving efficiency matched the 0,5% increase in productivity by the US economy for all of last year. — Sapa-AP.

Treasury seeks \$29bn

WASHINGTON — The US Treasury Department has announced it will borrow a record \$29bn (about R64bn) next week at a series of auctions needed to replenish government coffers.

Assistant Treasury secretary for domestic finance, Charles Sethness, said \$29bn in securities would be sold at auctions next Tuesday, Wednesday and Thursday, topping the previous quarter's record of \$28bn (R62bn).

Overall, the government would need to borrow \$57,5bn (about R125bn) during the October-December quarter, up from \$51,2bn

(about R113bn) in the July-September quarter, Sethness said.

The borrowings finance US government's \$2,12-trillion (about R4,7-trillion) debt. Congress has approved legislation raising the debt limit to \$2,3-trillion (about R5,1-trillion), an amount expected to be sufficient to cover borrowing needs through May.

The government's borrowing requirements keep increasing because of the huge imbalance between revenues and spending. It suffered a record \$220,7bn (about R490bn) deficit for the fiscal year ended September 30. — Sapa-AP.

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Productivity up 54%

247
THE INTRODUCTION of a productivity-sharing improvement programme at a farm implement factory in Nigel has resulted in an increase of 54% in productivity since its inception in July. Improvements have resulted in the payment of two comparison period bonuses (over eight weeks) of 8.3% to all manufacturing staff, with a lesser percentage to the remainder. Top management do not qualify.

According to John Deere MD Bill Hubbard, the acceptance by staff has been better than expected. "In one four-week comparison period, productivity soared an incredible 90% above the historic base."

The scheme was formulated by the company's US parent and tailored to SA conditions. The implementation has been welcomed by the Amalgamated Engineering Union, the Metal and Allied Workers Union and the SA Boilermakers Society.

Productivity improvements are calculated in profit terms, and this is split between the company and the employees. Due to the current low level of productivity by world standards, this is initially split 90%-10%, but as the level

MICK COLLINS 6/11/86

improves the employee portion will increase until parity (50%-50%) is reached.

This improvement is reflected in adjustments to the base productivity level, which requires a sustained improvement of 60% over the existing base of six months. Monies generated by improvements above 50% of the base are automatically deposited in a reserve fund for later distribution to the employees. This allows performance below the base level to be offset against the reserve fund. The employee is guaranteed his basic wage as a minimum at all times.

The company is aiming to double productivity levels, but does not foresee any retrenchments as a result. "It is not our policy to retrench staff as we get there. Lower costs resulting in increased market share would absorb the increased potential from our existing labour force," Hubbard says. "It is possible that additional staff would be needed in future to meet an increasing demand for farm products."

14/11/86 BUS DAY
Makers warned of a market crisis

SA goods need to pick up on quality — expert

THE quality of local goods has dropped so dramatically that SA is in danger of losing a major portion of its world markets.

A leading engineering management expert yesterday called for urgent formulation of a national strategy to avert a crisis in quality.

John Marks, GM of the engineering division of P-E Corporate Services, warned delegates at the National Convention for Productivity in Pretoria that manufacturers were facing a major crisis which could lead to the loss of a large portion of local and world markets.

"Manufacturers are being hit by both internal and external pressures which, if not countered by immediate action, will

MICK COLLINS

lead to the eventual demise of our markets."

This would also result in further widespread unemployment and bankruptcies.

Marks cited sanctions, low productivity, high inflation, high input cost, reduced revenues and low capital investment as some of these pressures.

"History has proved that buying prejudice disappears when high quality products are marketed. By adopting new quality strategies, SA will be able to turn the tables on its sanctions masters by capturing their markets with products that will meet the highest world standards."

He urged manufacturers to rethink on quality strategies as a means of countering pressures.

Marks said overseas research had shown that quality improvement projects provided a higher return on investments than virtually any other investment activity.

"In SA companies allow for a certain percentage waste in the manufacturing process. This should be changed to one of reducing waste and increasing output with the emphasis on quality," he said.

"Japanese manufacturers use the same material and processes as their American counterparts, yet they achieve significantly higher output and product quality."

"This is due to concentrating on quality improvements as opposed to mere quality control," he added.

He said the Japanese started their quality programme with a massive education drive in the 1950s.

"SA needs to follow the same path and needs to start now. Let SA turn adverse circumstances to its own benefit."

Premier award goes to Mintek

Mining Editor

THE Council for Mineral Technology (Mintek) has won the premier award for achievement in science and engineering given by the Associated Scientific and Technical Societies of SA (AS & TS).

The award is in recognition of Mintek's part in the development of the carbon-in-pulp gold extraction process, which earns SA more than R200m a year in additional revenue.

A commemorative plaque was handed to Mintek president Aidan Edwards at a banquet in Johannesburg last night.

AS & TS president Roy Perry said application of the technology had increased the production of SA's most precious resource, and was more than 30% cheaper in capital and running costs than conventional methods.

AREA A: Lower Tugela.

AREA B: Durban and Port Elizabeth.

18/11/86

247 BUDON

INDUSTRY

Shoddy plant upkeep 'harms SA'

WITH dire warnings of what declining productivity will mean to future generations of South Africans, organised industry is pushing towards more efficient maintenance programmes.

Recent reports indicate that if SA's productivity continues to slip, the country will regress to the status of a Third World state in terms of manufacturing.

Industry sources state that a plant maintenance policy which does not ensure efficient operation is a positive danger sign of forthcoming declines.

"But this is nevertheless a policy which is tending to become more prevalent as operating costs rise and profits shrink. No economy measure could be more falsely based," they say.

Maintenance deferred can have the most damaging effects on productivity. New methods of planning, measurement and control — particularly the concept of preventative

maintenance — are now widely accepted.

The Transvaal Chamber of Industries (TCI), in co-operation with the National Productivity Institute (NPI), has been publishing weekly guidelines for the manufacturing sector.

Some of the highly pertinent questions asked are:

☐ From physical inspection of the plant, how much maintenance work involves shutdown of machinery in production time? What alternative use can be made of labour rendered idle by these shutdowns?

☐ On what basis is machinery operated — continuously until it breaks down? With periodic but unscheduled checks? Or by regular checking in a preventative maintenance programme?

☐ To what extent is preventative maintenance followed? How much use is made of the "critical machine" approach to manage maintenance programmes? Some of the factors to be taken into con-

sideration are that failure would endanger health and safety, jeopardise quality, and stop production. Also, it should be remembered that capital investment is a large part of production cost.

An NPI spokesman says some of the instances given will enable management to identify cost reduction opportunities.

"What scope exists for replacing constantly wearing parts with more durable substitutes? What regard is paid to the wearing qualities of moving parts in choosing machinery and plant?"

"How much insistence is there on the use of standard components in locally built equipment? What consideration has been given to automatic and remote types of lubrication?"

Manpower in maintenance is one of the most critical factors in keeping costs down and productivity up, he says.

Lost man-hours can be created by maintenance teams standing idle before their

POOR plant maintenance has been identified as one reason why SA might soon slip into Third World status in terms of manufacturing.
MICK COLLINS reports on efforts to raise standards in this field.

WIEHAHN, controversial fa-
of labour relations in this
try, describes himself as "the
revolutionary left" — claim-
that he has been blamed for
king down the pillars of
theid, the drought and now
ack of productivity.

he thrives on controversy
fessor Wiehahn is head of the
st Graduate business school in
ern Africa, director of the Unisa
l of Business Leadership. Now
is pure dynamism, and says
rously. "When I reach 60, I still
to go back to the bar as a law-
e a pianist when I am 85 and
ctor of an orchestra when I am

hahn says "the word producti-
misused, done to death. We are
s effective as we should be
imes we get better producti-
ut then we often sacrifice qual-

fectiveness begins with you. It
ree dimensions. First: self-dis-
3, self-pride and self-image (I
an I grew up in the best com-
in the world — myself — so
the man I live with. Nic Wie-

ondly, your relationship be-
you and your job, what you do
be done with total dedication
evotion. Effectiveness breaks
if you only wait for the end of
rking day, working life. Retire-
s a word that does not exist in

Wiehahn counts the cost — then cuts it

ANNABELLE GORDON

my vocabulary

"Thirdly, how you relate to other
human beings, be people orientated
We do not communicate suffi-
ciently, we do not make ourselves
sufficiently understood. Not surpris-
ing, when you think how many lan-
guages and dialects are spoken here
Politeness gets better results than
rudeness. Staff react so well to cor-
rect motivation, yet it is not used. It
takes a big man to apologise, yet it is
so easy

Career life

"Now think of the cost of ineffec-
tiveness to the country with regard to
the loss of time in both the public and
private sectors of our economy
"It is estimated that time loss
through unjustified absenteeism from
work, late arrivals and early depart-
ures from work, late deliveries of
goods, passing time at tea and coffee
breaks, arriving late for appoint-
ments, people who talk irrelevantly
and too much at meetings — the time
so wasted by five people equals the
career life of a working man.

"This is not only very costly but
undoubted proof of a serious lack of
effectiveness" Wiehahn believes that,
proper time management is a neces-
sary precondition before you can be
effective in your life and work

"My question is if you need eight
hours to work and eight hours to eat
and rest, what do you do with the
remaining eight hours? The challenge
of the 'third shift' per day faces every
person, and only time management
will contribute to our effectiveness in
society.

"We also feel the results of ineffec-
tiveness in the cost factor. A col-
league is exploring a new develop-
ment in our economy, the 'Lost
Opportunity Costs' theory. He says SA
could have double the income of its
annual budget if ineffectiveness could
be eliminated from our daily lives"
Ineffectiveness through poor deci-
sion-making, low productivity and
poor time management costs the
country in excess of R3 000b each
year, according to Wiehahn
"Perhaps we should start a new
discipline in economics — once we
know how much we lose because we

are not effective, it could induce us to
double our efforts to improve our-
selves"

A loss of production and potential
markets results from ineffectiveness
"Lives can be lost from ineffectiveness," said Wiehahn "Frequently one
reads in newspapers of people who
have died as a result of improper
attention or medication, the ambu-
lance arrived too late, wrong diagno-
sis, misunderstanding, negligence and
other avoidable causes

Bad habits

"You have to become creatively
productive and plan to utilise your
time effectively. Once you have
achieved this, motivate your staff to
do the same."

Wiehahn says that achieving this
takes some doing. "Pulling it off re-
quires help. Getting a system into the
allocation of and on-going monitoring
of your time investment is not simple
"I use a diary which starts at
5am and finishes at midnight. When
you note down — every half hour —
what you have done, you soon see
where time was abused
"Unlearning old, bad habits and re-
placing them with good, new ones
could be a major contribution to-



□ WIEHAHN... "I use a diary"

wards a national economic recovery
This point is well illustrated if we
translate a conservative estimate of
wasted manhours on a national basis,
for a one-year period, into money
terms.

"Assuming a total national, eco-
nomically productive workforce of
some 10-million people, each of whom
wastes an hour per day. Multiply this
by 22 to arrive at a national total of
wasted working manhours per month
and, by 12, to bring us to a yearly total
(allowing for leave).
"Estimating a very conservative
R2,50 per hour average figure, we

throw away more than R6b as a
nation. Approximately 6% of our
gross national product blown because
of simple inefficiency. More — be-
cause my estimates are very conser-
vative."

That R6b, said Wiehahn, could be
much better spent on developing
secondary industry, which would
make a sizeable dent in unemploy-
ment. "Reduced unemployment must
mean a reduction in unrest and, con-
sequently, international political and
economic pressure, which will result
in a more valuable rand. All this adds
up to growth, a better standard of
living all round, stability and secur-
ity

Decision-making

"As a lecturer, I feel like a lantern
carrier — lighting the way. We give
management training to some 3 000
students a year, country wide. In this
country it suffers from the same
problem as the political system — it
is reactive, not pro-active
"Graduate business training must
not only react to current demands but
plan ahead for the technological, so-
cio-economic and political changes
that will be forced on us in the future.
"Like Sol Kerzner, I am a 21st Cen-

tury person. These students will b
too — so we add decision-making
effectiveness when accenting impo-
tant words

"I don't mind being crucified for
being a trailblazer or for causing the
drought. But lack of productivity?
teach that an effective person is
good person who gets good results for
a good deal.

"We alter the status quo in a pos-
itive manner, so that the decision
makers can get effective results"

Wiehahn should know. Son of a rail-
wayman in Matikeng, brought up in
Kimberley, he started as a stoker on
the railways with a Std 7 pass

He finally passed his matric at the
age of 21, failed BSc at university, but
subsequently achieved his BA, LLB
and LL.D. He studied abroad, was ad-
mitted to the Bar and became a to-
labour expert and honoured acade-
mic

Wiehahn has been advocate
professor, editor, director of numer-
ous companies, chairman, adviser to
government, president of the Indus-
trial Court, member of various com-
missions — the list is unending.

How does he do manage it all?
"I live by the Enos philosophy —
be constantly effervescent."