

**TAX INCENTIVES TO SUPPORT INDUSTRIAL POLICY**

TAX POLICY UNIT: NATIONAL TREASURY

**Table of contents**

1. RATIONALE FOR TAX INCENTIVES TO SUPPORT INDUSTRIAL POLICY ..	2
2. INDUSTRIAL POLICY IN SOUTH AFRICA.....	3
2.1 National Industrial Policy Framework.....	3
2.2 Current tax incentives / allowances .....	4
2.3 Previous tax incentives.....	5
3. CURRENT CONSTRAINTS AND POSSIBLE POLICY REMEDIES.....	6
3.1 Skills development / training.....	11
3.2 Technology transfer .....	11
3.3 Increased capital productivity.....	11
3.4 Depreciation allowances .....	12
3.5 Customs duties.....	12
3.7 R&D allowances .....	12
4. RECOMMENDATIONS ON DESIGN OF PROGRAMME.....	13
Appendix 1: Energy use benchmarks .....	15
Appendix 2: Tax Holiday Programme .....	17
Appendix 3: Strategic Investment Project .....	18
Appendix 4: .....	19



## **1. RATIONALE FOR TAX INCENTIVES TO SUPPORT INDUSTRIAL POLICY**

The conventional case for industrial policy rests on collateral constraints, asymmetric information in estimating profitability of 'new' industries, learning spill over effects<sup>1</sup> and 'new growth theory' on the externalities of knowledge and new goods. These factors all contribute to the fact that the business case to diversify into new, untapped industries is too costly for an entrepreneur to consider, thus a role for public financing emerges (Rodrik, 2008:3-5).

In their study of South African export performance, Hausmann & Klinger (2006) apply a process by which they identify potential sectors of growth for South Africa. They evaluate possibilities in terms of the relative "sophistication" of the product, its "proximity" to already performing sectors, its "proximity" to other untapped sectors and its labour absorption. The elements that individual firms will be least likely to internalise adequately are of a strategic nature (i.e. potential to linkages to future products and production), and therefore industrial policy can be utilised to overcome the asymmetry of information.

Requirements for policy interventions (Hausmann & Klinger, 2006:44-45) include:

- Coherence in the goals and objectives of industrial policy is paramount in the design of interventions (Kaplan, 2007:9).
- Greater interaction between policy makers and industry to foster industry experts who know what the constraints of industries are and to anticipate areas where policy support should be given (Kaplan, 2007:11-12).
- Ex-post evaluation (and evaluation instruments) should be planned from the beginning and be made public.
- Providing carrots and sticks is not just about the incentives granted to industries, but making sure that support to non-performing firms is withdrawn. This requires the publication of detailed criteria by which an intervention programme will be judged and the acceptance of a failure rate within the programme. The difficult part is to stick to the commitment to cut non-performing firms from the programme.
- Ideally a sector neutral approach aimed at market and government failures should be envisaged. Such interventions should be based on a role which is appropriate for government intervention (e.g. Infrastructure, labour training, education, R&D, regulations and laws).
- Intervention design should be broad so as not to benefit a narrow interest group, and to ensure that entry barriers are minimal.

Although tax incentives can be a helpful in industrial policy interventions, they are by no means the only available instrument. Furthermore, in many cases tax incentives are not the most efficient or appropriate instruments to achieve certain goals. In this sense careful consideration should be given to the use of tax incentives for specific and applicable policy outcomes. In order for tax incentives to work, the following conditions must be met:

- The intended beneficiaries of tax incentives must be in the tax net. Take note that grants are often better targeted for narrow policy interventions. Tax policies are useful when a broad and general range of companies are targeted.

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<sup>1</sup> This implies that the initial mover bears the sunk cost of market development.

- The reduction in tax liability should not erode the tax base excessively or permanently. Tax incentives should have clearly communicated sunset clauses.
- There should be an efficiency gain in applying the tax incentives in comparison with a grant programme or other regulatory intervention. Such gains are possible by use of the existing tax system architecture rather than creating a grant programme.
- The administrative burden of compliance to conditions of the programme must not exceed the benefit granted through the tax incentive
- The tax incentives should also adhere to Smith's principles of taxation, i.e. equity, certainty, convenience and efficiency.

Similarly, with regard to tax incentives paragraph 7.3.4 (page 88) of the First Interim Report of the Katz Tax Commission, the following was stated:

*"7.3.4 Bearing in mind that the main task of the revenue authorities must be the efficient and effective collection of the funds required by the State, other than borrowed monies, tax incentives should be allowed only on clear and proven grounds of relative advantage. It requires to be shown, thus, that:-*

- a) the intended objective is a legitimate and necessary purpose of the State;*
- b) the intended objective can be achieved more effectively through, or partially through, tax incentives than through expenditure programmes of Government;*
- c) the loss of revenue attendant on the tax measure is justifiable relative to the benefits attained;*
- d) the scope for abuse of the tax measure is not excessive."*

Draft guidelines on tax incentives further operationalise these requirements by suggesting that tax incentives only be granted when a case for such incentives can be made given:

- A clear definition of the problem set and goals of incentives. This should be coupled with a clear case for government intervention.
- Statement of alternative and concurrent intervention(s)
- An international comparison
- Preferable instruments are proposed
- Clear targeting and criteria for the programme
- Stipulated sunset clause
- Reporting and monitoring requirements
- Verifiable cost-benefit analysis of incentives
- Calculated (and reported) revenue implications

## **2. INDUSTRIAL POLICY IN SOUTH AFRICA**

### **2.1 National Industrial Policy Framework<sup>2</sup>**

The National Industrial Policy Framework of government was adopted in January 2007 and has these principal objectives:

1. To facilitate industrial diversification beyond primary commodities and non-tradable services through value addition and export growth and import substitution.
2. Intensification of a knowledge based economy.
3. Promotion of labour intensive industries

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<sup>2</sup> Dti, "Industrial Policy Action Plan"

South Africa's industrialisation is said to be characterized by low profitability, therefore low investment, low output, poor export and employment performance, particularly in the low and medium skill manufacturing industries. Constraints in the secondary sector are:

- i. The level and volatility of the exchange rate
- ii. The relatively small size of the domestic economy
- iii. Relatively costly and unreliable infrastructure
- iv. Monopolistic pricing of intermediate inputs into manufacturing
- v. Challenges with respect to skills development and training
- vi. Intense global competitive environment
- vii. Inadequate state support for investment, upgrading, innovation and technology

Actions for implementation include:

- a. An industrial upgrading programme to deepen manufacturing capabilities
- b. A revised suite of industrial financing instruments to support the policy
- c. Reducing input costs through competition policy and the review of import duties on intermediate inputs for the manufacturing sector

Sectors identified by *the dti* for the industrial policy, are:

- Capital/transport equipment and metals
- Automotive components
- Chemicals, plastic fabrication and pharmaceuticals
- Forestry pulp and paper and furniture
- Business process outsourcing and off-shoring,
- Tourism
- Bio-fuels
- Textile and clothing
- Diamond beneficiation and jewellery manufacturing
- Agro processing
- Film and Television
- Crafts

#### **Industry Generic Issues**

- Industrial financing – greater scale and prioritization of labour intensive, value adding new and knowledge based projects. In this regards the IPAP recommends:
- The fast tracking of an improved suite of incentives by agreeing to a methodology of financing incentives, reintroduction of targeted and up-scaled incentives, a revised SMEDP, up-scaling of the critical infrastructure fund and the development of industrial upgrading programme.
- Up-scaling the IDZ –by expanding the number of IDZs
- Review of import duties of key industrial inputs for manufacturing
- Review of import duties on machinery and equipment not produced and not likely to be produced in SA

## **2.2 Current tax incentives / allowances**

2.2.1 R & D incentives: Section 11 D: A deduction may be claimed by the taxpayer in respect of qualifying expenditure equal to 150% of expenditure incurred directly by the taxpayer in respect of activities undertaken in South Africa.

2.2.2 Intellectual Property: Taxpayers may deduct expenditure incurred in devising or developing any invention or design or copyright. Where expenditure exceeds R5 000, there is a 20 year write off where expenditure was incurred on an invention, patent, trademark, copyright or other property essential to the use of such invention patent trademark or copyright and a 10 year write off where expenditure was incurred on a design or any other property essential for such design.

2.2.3 Depreciation: Section 12 B allows for 50:30:20 depreciation regime for the production of bio-fuels and immediate write off on relocating the asset. Section 12 C allows for a 4 year write-off of assets of manufacturers (40:20:20:20) Second hand equipment qualifies for 5 year write-off.

2.2.4 Industrial and commercial buildings: Section 13 of the income tax act allows 5% depreciation annually on manufacturing and commercial buildings.

2.2.5 Urban Development Zone (UDZ) incentive is designed to encourage investment in specified urban development zones of 16 municipalities to promote urban renewal and development through private sector investment (section 13 quat). The incentive is in the form of an accelerated depreciation allowance for the construction of new buildings and improvements to existing buildings.

For refurbished buildings, investors are eligible to receive an annual deduction of 20% over five years. For new developments, the incentive offers a 20% deduction in the first year and a 5% annual depreciation for the next 16 years.

2.2.6 Learnership allowances: Section 12 H is an additional deduction (on top of deductible expenses) of certain amounts, depending on whether the trainee is a new and or existing employee or a disabled employee, relating to learnership agreements entered into before 1 October 2011. The incentive is meant to encourage skills development.

2.2.7 Sectoral programmes: At present industry support programmes exist for the motor vehicle manufacturing and textile and clothing industries. The programmes involve custom duty credit schemes and the motor industry programme also targets investment. These programmes are set to run concurrently with this industrial incentive programme. There are also a number of grant programmes directed towards firms with specific characteristics (e.g. start ups, SMMEs) or in specific sectors (e.g. furniture production).

## **2.3 Previous tax incentives**

### **2.3.1 Tax holiday incentive (section 37 H)**

A tax holiday was available from 1 October 1996 (applications closed on 30 September 1999) for new manufacturing companies undertaking qualifying projects. Each qualifying component of the scheme entitled the applicant to a 2 year tax holiday. Some further details of the scheme are in Appendix 1.

### **2.3.2 Strategic Industrial Projects (section 12 G)**

The Strategic Industrial Projects programme<sup>3</sup> provided incentives to manufacturing firms, computer and computer related firms and research and development activities. The criteria for qualification included the total cost of the project, increases in production, employment and commercial viability of product. The products or processes had to be new to the republic, act as a key component for other projects or engage in a value added process and provide general business linkages in the economy. The programme commenced on 01 August 2001, applications closed on 31 July 2005. Further details are in Appendix 2

### **2.3.3 Negotiable tax credits (section 37E)**

The incentive was designed to allow manufacturers to deduct depreciation before assets were brought into use and even prior to a purchase being made. The credit accrued in as far as the deductions (11(bA), 12C, and 13(1)) exceeded the taxable income before allowing for the said deductions and they were tradable with other tax payers. A committee had to adjudicate applications for the credit, meaning there was discretionary authority.

To qualify for the incentive, the taxpayer's product had to encourage beneficiation in the area, preference being given to local products and skills being used in the firms and the effect it might have on SMEs. It was apparently due to the local content requirement that Columbus Stainless was fined under the anti-dumping provisions of the US. Local content requirements were also challenged with respect to the MIDP as unacceptable. Besides these challenges, these tax credits are an administrative burden with regards to the committee and tracking the credits.

## **3. CURRENT CONSTRAINTS AND POSSIBLE POLICY REMEDIES**

The Bureau of Economic Research's latest survey on the manufacturing industry reveals that short term interest rates, the shortage of skilled labour, political uncertainty, shortages of raw materials and insufficient demand rank as the highest **constraints faced by manufacturers** (see Table 1 below). Insufficient demand as a constraint also raises questions about entrepreneurship of tradable goods manufacturers, i.e. why are they not exporting.

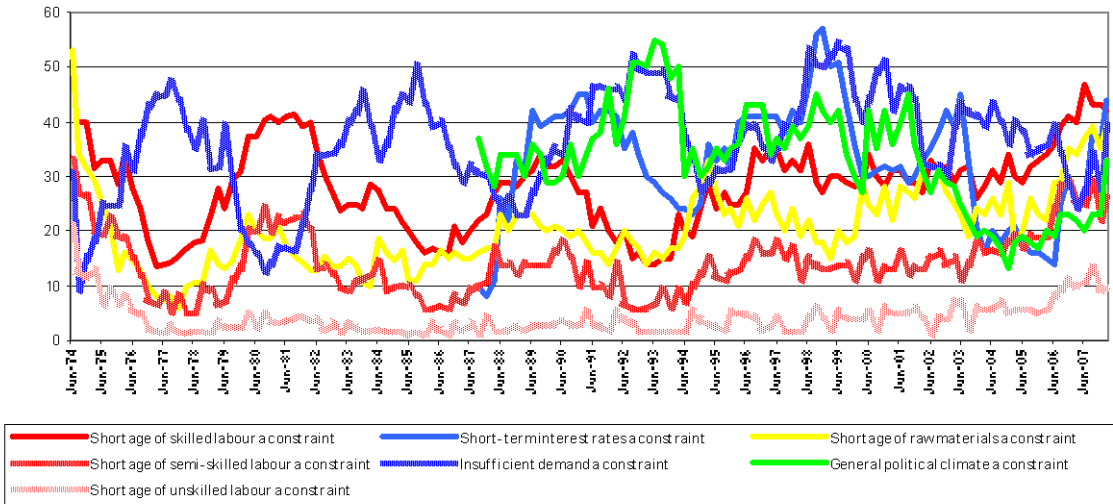
**Table 1**

<b>Total Manufacturing Constraints</b>	
<b>Description</b>	<b>Mar-08</b>
Percentage rating short-term interest rates a constraint	44
Percentage rating shortage of skilled labour a constraint	42
Percentage rating shortage of raw materials a constraint	39
Percentage rating insufficient demand a constraint	39
Percentage rating general political climate a constraint	33
Percentage rating shortage of semi-skilled labour a constraint	26
Percentage rating shortage of unskilled labour a constraint	10

**Figure 1**

<sup>3</sup> Section 12G of the Income Tax Act.

**Constraints as identified by manufacturing firms**



SOURCE: BER manufacturing survey<sup>4</sup>

The constraints mentioned above are not all equally persistent. The concerns of manufacturers regarding high interest rates and insufficient demand go hand in hand, and are linked to the business cycle, which is not a problem that can be addressed through tax policy. Political constraints are also not within the scope of the tax system. The constraint of raw material shortages could be as a result of high dependency on natural resources for production or monopolistic market structures. The use of natural resources as a direct input in production is the result of availability and suitability of the raw materials. Furthermore, the energy use of a production plant is an indirect dependency on raw materials. Finally, skills shortages have posed a persistent and growing threat to the manufacturing sector.

The problem of **skills shortages** is a very large one, with compounding effects and a myriad of causes. For instance, skills shortage points to problems in education like “... *that too few mathematics teachers in SA — and elsewhere in the world — know enough mathematics and they have not been trained properly to teach the subject by showing children how and why their methods are wrong. The proof of this lies in our mathematics marks: last year, 303,152 of SA’s 528,525 matric candidates wrote mathematics and 165,865 passed, 14642 on higher grade. That means 2,7% of SA’s matriculants passed mathematics at a level which would allow them to study university courses that require mathematics*”.<sup>5</sup> In this sense development policies ought to be broader, and tax incentives can only compliment these development objective. For instance, incentives on training can encourage firms to train workers but the bigger constraint in skills relates to the quantity and quality of school leavers.

<sup>4</sup> Note: All values are in percentages, which are weighted as follows: 0.67\* (% of respondents rating a certain constraint to be a serious problem) + 0.33\* (% of respondents rating it as slightly serious)

<sup>5</sup> Business Day, “When knowledge does not add up”, 2007

A further constraint on manufacturing firms in South Africa is the high level of **market concentration** in the manufacturing sector. Fedderke and Szalontai<sup>6</sup> did a study which shows that between 1972 and 1996<sup>7</sup> concentration in the manufacturing sector was high and had generally increased over the period. The resultant effects were lower output growth, higher unit labour costs, lower labour productivity and lower employment. For investment there seemed to be a positive correlation.

In a majority of sectors, the largest 5% of firms produce more than 50% of output in all sectors. In 1996 all the largest 5% of firms in all sectors, except for textiles, were producing more than 50% of total output (see Table 2).

Further findings show that the performance of the basic chemicals, iron and steel and non ferrous metal industries have high impact on factors like output growth, investment, total factor productivity, relative real unit labour costs, gross operating surplus/GDP, and output per labourer. Other sectors (food and food products, beverages, textiles, clothing, leather, footwear, wood and wood cork products, furniture, paper and paper products, printing, publishing and allied industries, other chemicals, rubber products, plastic products, glass and glass products, other non metals, metal products, machinery, motor vehicles parts and accessories, transport equipment, other manufacturing) have interaction indicators, meaning that concentration by itself is weakly associated with these indicators.

**Table 2: Concentration level in different manufacturing industries**

	1976			1985			1996		
	% of output produced by this % of sector			% of output produced by this % of sector			% of output produced by this % of sector		
	5%	10%	15%	5%	10%	15%	5%	10%	15%
Food and food products	65.29	80.26	87.38	70.12	84.28	89.92	75.16	85.35	90.13
Beverages	55.64	71.38	77.65	62.68	77.88	83.74	74.26	87.55	91.05
Textiles	52.29	67.85	77.38	55.92	72.95	82.34	48.11	63.72	72.84
Clothing, except footwear	46.75	63.85	73.79	50.58	66.74	76.14	58.68	72.78	79.68
Leather & products from leather	37.17	51.78	63.2	50.25	70.2	78.73	67.86	84.24	88.69
Footwear	36.73	53.99	65.3	46.08	62.06	69.85	56.42	68	75.46
Wood and Wood and cork products	51.35	66.97	76.84	63.34	75.43	81.82	61.1	73.49	80
Furniture	53.39	66.98	75.15	52.12	65.48	73.75	58.38	71.19	78.41
Paper and paper products	53.36	65.34	74.37	75.43	84.08	87.69	62.05	74.13	80.46
Printing publishing and allied products	60.98	71.63	78.44	62.45	73.22	79.38	69.25	78.46	84.16
basic chemicals	69.55	79.31	85.2	62.88	78.4	84.9	70.79	82.59	88.72
other chemicals	71.32	80.89	86.63	47.99	64.3	74.89	63.43	81.32	87.83
Rubber products	55.97	79.3	87.6	66.16	83.77	87.18	80.85	86.38	89.32
Plastic products	36.55	54.87	66.44	46.63	63.48	73.61	56.67	70.69	77.81
Glass and glass products	53.46	78.93	88.08	85.4	87.42	90.12	87.31	90.28	92.91
other non metals	69.6	81.72	87.09	75.83	84.2	88.44	74.96	82.83	87.25
Basic iron and steel	73.48	82.97	88.19	76.93	86.42	91.51	69.89	82.52	89.5
Non ferrous metal basic industries	47.6	70.83	81.13	63.07	77.37	85.16	64.66	80.19	87.55
metal products, except machinery and equip.	58.48	70.58	77.73	65.47	76.39	82.46	67.34	76.03	81.32
Machinery, except electrical	56.14	71.56	79.46	60.24	72.68	79.14	61.79	73.35	79.84
Electrical machinery apparatus	60.77	75.1	82.79	66.58	80.62	86.28	58.26	72.56	79.84
Motor vehicle, parts and accessories	79.42	87.46	90.72	83.9	89.96	92.64	85.19	92.85	95
Transport equipment	68.01	83.07	89.98	73.37	83.1	87.44	75.27	82.26	88.17
Other manufacturing	53.15	69.3	79.19	59.9	74.63	81.85	83.38	88.37	91.67

SOURCE: Fedderke & Szalontai (2004)

South Africa's concentration levels are very high and this is not good for productivity, efficiency and employment. Higher concentration also increases the pricing power of manufacturers. With regards to investment, the higher concentration may have positive or negative effects. A positive outcome comes about as a result of a dominant firm

<sup>6</sup> Fedderke J. and Szalontai G, Industry Concentration in South African Manufacturing Industry: Trends and Consequences, 1972-96”

<sup>7</sup> Recent manufacturing concentration indices are not readily available for South Africa.

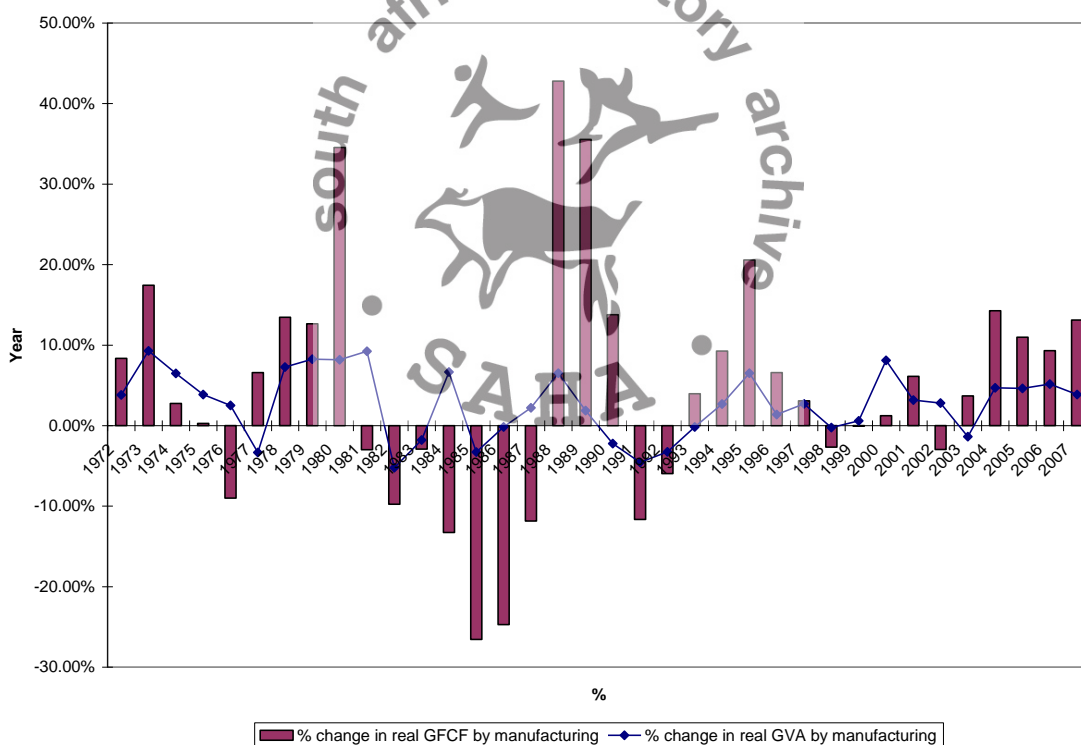


consolidating its market position. In the other extreme, as the number of competitors, actual and potential declines, there is no incentive for a dominant firm to increase its capital stock.

These high concentration indices indicate that several barriers to entry exist in the manufacturing sector, and these barriers to entry severely constrain manufacturing performance. Such barriers would include abusive pricing practices, credit constraints, cumbersome regulatory practices or large upfront capital outlays. Although these barriers form a large constraint, tax policy is ill equipped to address the underlying problems, whereas regulatory reform or grants would be well suited to address these issues.

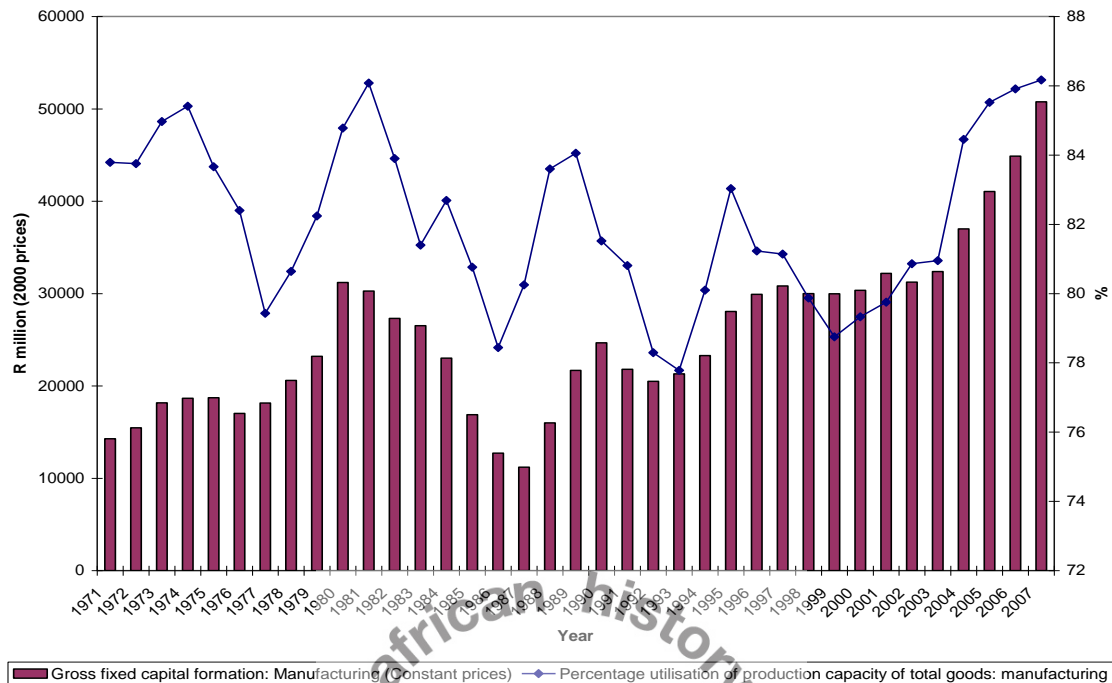
In recent years there has been a surge in fixed capital formation in the manufacturing sector. Such investment would usually translate into greater capacity to produce. The effect on capacity utilisation is dependant on the **productivity of capital** in terms of output. If output growth outpaces capital formation, one would expect increased capacity utilisation. If, however, output growth is slower than capital formation, one would expect a decrease in capacity utilisation.

**Figure 1: Manufacturing Gross Fixed Capital Formation and Gross Value Added**



Since 2003 the pace of investment has outstripped the pace of output, therefore we would expect to see abatement in capacity utilisation. Yet, this is not the case (see figure below).

**Figure 2: Manufacturing: Gross Fixed Capital Formation and Capacity Utilisation**



In order to explain the phenomenon above, it is instructive to refer to the depreciation of capital stock<sup>8</sup> and the resultant net capital formation.

**Table 1: Manufacturing sector Indexes (1995 = 100; constant at 2000 prices)**

Index	Gross Value Added	GFCF	Depreciation	NFCF	Fixed Capital	Depreciation rate (%) - A	Depreciation rate (%) -B
1995	100.0	100.0	100.0	100.0	100.0	7.9%	7.2%
1996	101.4	106.6	109.4	100.6	103.5	8.3%	7.5%
1997	104.1	109.9	120.2	87.3	106.6	8.8%	7.9%
1998	103.9	106.9	128.3	60.3	108.7	9.2%	8.2%
1999	104.5	106.8	138.4	38.1	110.0	9.7%	8.7%
2000	112.9	108.1	147.8	21.8	110.8	10.2%	9.2%
2001	116.5	114.7	156.1	24.7	111.6	10.7%	9.7%
2002	119.8	111.3	164.0	-3.2	111.5	11.2%	10.0%
2003	118.1	115.4	170.1	-3.6	111.4	11.6%	10.5%
2004	123.7	131.9	177.0	33.6	112.6	12.1%	10.8%
2005	129.3	146.3	185.7	60.6	114.7	12.6%	11.1%
2006	136.0	159.9	196.1	81.2	117.5	13.0%	11.4%
2007	141.3	180.9	209.7	118.2	121.7	13.6%	11.8%

<sup>8</sup> Two different methods are used to calculate the depreciation, analogous to straight line and declining balance methodologies.

We find that the rate of depreciation has accelerated significantly over the past 12 years, and that the expansion of fixed capital stock could not match the growth in production (measured by gross value added) in the manufacturing sector. This is indicative of the problem of aged and obsolete equipment in this sector.

We now turn to possible policy remedies that seek to address current constraints. It should be kept in mind that such interventions should warrant government intervention based on public good characteristics or market failures.

### **3.1 Skills development / training**

Despite acute skills shortages in SA, industry is spending little on training (e.g. about 90% of engineering firms spend 1-2% of wage bill on training). Trained personnel theoretically increase labour productivity and therefore profits for firms. In this regard we propose training tax credits. This is not an uncommon practice, as Japan has a tax credit for training. Canada has a tax credit equal to 10% of the eligible salaries payable to apprentices in aspects of employment with a maximum credit of \$2,000 per year for each eligible apprentice. New Zealand considered a similar scheme but it was not implemented (2006/2007) due to the cost of the scheme. This scheme was considered for identified technical diplomas, degrees at local universities and to replace bursary allowance.

To encourage training above a given level (e.g. percentage of training costs to wage bill of 2%) employers should get a tax credit equivalent to say 10% of the tuition costs of accredited courses at South African FETs, universities of technology and universities with a maximum cap per year as well as costs associated with internship with a maximum of R5 000 for employees, provided that employees are not required to reimburse employers. The credit would reduce their tax liability directly.

### **3.2 Technology transfer**

SA industry needs to upgrade its productive assets to be more environmentally friendly, energy efficient and more productive. A withholding royalty tax discourages technology transfers between countries. Low or zero withholding tax on royalties paid to owners of intellectual property would encourage technology transfers into SA. The tax is currently 12%. Yet, abolishing it would result in abuse whereby companies remit dividends as royalties. SA has tax treaties with about 60 countries, the only countries where royalty withholding tax applies are China, India, and Japan at 10% and Australia 5%. For this reason abolishing the withholding tax will have little to no effect because there are tax treaties with most source countries for technology. Therefore, this is not one of our policy proposals.

### **3.3 Increased capital productivity**

There are initiatives at *the dti* and DST like Innovation and Technology programs which need to be evaluated for effectiveness and the level of awareness of industry on these programs be ascertained. They are meant to offer assistance in technology improvements and technology transfers. Depending on their effectiveness, grants for the programs could be increased for industrial policy projects. Effectiveness and level of industry awareness on these projects need to be verified with *the dti*. Tax incentives can do little to address this constraint, while the grants can potentially have a large positive

impact. Consideration is given to improvements in innovation, using existing institutions like the dti's National Technology Centre to assess the innovation that is taking place at industry level.

### **3.4 Depreciation allowances**

The depreciation allowance is considered in line with the objective of SA industry introducing more productive and energy efficient equipment on their factory floors. The current depreciation regime for manufacturing is 40:20:20:20 (4 years). We simulated the revenue implications of changing this regime to 50:30:20 or 40:30:20:10 configurations. These reconfigurations resulted in revenue losses upwards of R 8 billion in a single year. We also considered a combined incentive with a credit for a portion of the investment and accelerated depreciation on the balance. This too was seen as a too costly incentive.

Further consideration should be given to installation of energy saving and or environmental equipment in factories. Environmental capital expenditure can be of the type used to reduce or prevent emissions or clean up disposed waste etc. Such capital expenditure may be incurred by a firm in order to meet legislative requirements. The difficulty posed by these pieces of equipment is proving that one is better than the next. There might be need to have a state agency that would certify that the equipment meets particular environmental legislation. Discussions with relevant departments need to take place to make such an incentive feasible.

### **3.5 Customs duties**

Customs duties have the effect of protecting domestic producers and increasing their input costs. Changes in import duties are suggested in the IPAP document with regards to capital, transport equipment and metal fabrication (p7), chemicals, plastics and pharmaceuticals (p 12), textile and clothing (p 24), and a general "review of import duties on machinery and equipment not produced and not likely to be produced in SA" (p 40). Identification of such products poses a large problem.

The difficulty posed by the customs review proposals is that it is hard to determine what the applicable rates are because there are many capital and intermediate input products referred to. Some of these may already be duty free. Further customs reviews have implications for SACU as well. A review of the customs codes also indicates that most equipment is imported duty free.

### **3.7 R&D allowances**

R&D allowances (11D) were introduced in 2006 so there is no record of impact or take up thereof. At 150%, the allowance is very generous compared to most countries. It is possible to make the argument that regulatory problems<sup>9</sup> hamper firms' abilities to conduct potentially useful R & D. Also, very specialised skills are necessary to conduct R & D, which we do not possess sufficiently at the moment. Further extension of this tax incentive is not proposed.

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<sup>9</sup> Especially in the pharmaceutical sector, regarding clinical trials, registering of medication etc.

#### 4. Recommendations on design of programme

##### Definition of problem

Low labour productivity due to skills shortages; Low capital productivity due to outdated / inefficient capital equipment; increase investment in the manufacturing sector

##### Goal of incentives

To improve investment in skills, improved equipment in the industrial sector and growth of the sector

##### Tax Incentives to be given (subject to the availability of funds)

<b>Qualifying status</b>	Minimum points: 5 points (Subject to a sub-minimum of 2 points for components E and F combined):	<b>5</b>
	Actual training expenses as a tax allowance / deduction up to a maximum R 36 000 per employee, and an overall maximum of R20 million per entity over 4 years.)	
	<b>35% investment tax allowance / deduction</b> (maximum of R 550 million per project for greenfield; maximum of R 350 million per project for upgrades or expansions / brownfield)	

<b>Preferred status</b>	Minimum points: 8 points (Subject to a sub-minimum of 2 points for components E and F combined):	<b>8</b>
	Actual training expenses as a tax allowance / deduction up to a maximum R 36 000 per employee, and an overall maximum of R30 million per entity over 4 years.)	
	<b>55% investment tax allowance / deduction</b> (maximum of R 900 million per project for greenfield projects; maximum of R 550 million per project for upgrades and expansions / brownfield).	

##### Application period

5 years (Effectively ending by 2014)

Prerequisites for eligibility to the programme	
Criteria	Requirements
Qualifying investments	1. Greenfield investment projects 2. Brownfield / expansions investment projects: 3. Substantial upgrade projects: Replacement of aged equipment with new improved equipment.
Manufacturing Sector	See most recent SIC codes Major Division 3: Manufacturing
Exclusions	1. Tobacco, Alcoholic Beverages, Bio-fuels that could impact food security, Arms and ammunition, PFMA institutions and subsidiaries 2. Projects that receive other incentive packages (grants or tax - excl income tax act incentives)
Investment	Greenfield: Minimum R 200 million in industrial assets Expansion / Brownfield: Minimum investment requirement of the higher of R 30 million of industrial assets or 25% of the value of existing industrial assets Substantial upgrade: Minimum investment requirement of the higher of R 30 million in industrial assets or 25% of value of existing equipment Investment should result in at least 10% energy demand reduction in the year that the investment is realised, given 2006 energy demand for project or industry standard.
Training	Detailed skills development programme that describes qualifying training expenditure Training expenditure should exceed 2% of wage bill

##### Treatment of time-value of incentive

*Tax Incentives to support Industrial Policy – Draft Proposal*

The net present value of the approved incentive will be preserved from the date the investment is realised and the assets are brought into use for a period of four years. This adjustment will be made by referring to the prescribed rate published by StatsSA.

<b>Monitoring requirements</b>	
Reporting	1. Annual reporting by projects on the functioning of the incentive to dti/ NT/ SARS 2. Verification of investment, jobs, electricity demand and training costs by audit 3. Firm liable for monitoring and reporting costs
Monitoring & Evaluation	Reporting on cost of programme per budget cycle, job creation, energy efficiency, etc.
Investment	Investment should be realised within 4 years of approval and the approval lapses if the projected starting date is missed by 12 months –extensions are subject to committee approval
Energy efficiency	Must be maintained over 4 years benchmarked on the electricity consumption of the year from the date when assets are in use.

#### 4.1 Proposed scoring mechanisms

<b>GREENFIELD PROJECTS</b>	
<b>A. Energy efficiency (as measured in energy consumed (MWh) / Value added)</b>	<b>2</b>
<i>Benchmark: Industry standard in 2006 (See Addendum A)</i>	
Decrease in energy demand of at least 12,5% in year that investment is realised	1
Decrease in energy demand of at least 15% in year that investment is realised	2
<b>B. Cleaner production technology</b>	<b>1</b>
In relationship with National Cleaner Production Centre	1
<b>C. Innovation and linkages</b>	<b>2</b>
<b>(i) Innovation</b>	
Process demonstrates material improvement in production time, quality of product, longevity or reduced costs	1
<b>(ii) Domestic Linkages</b>	
Procurement of direct inputs from small businesses or impact on upstream and downstream manufacturing clusters	1
<b>D. Location in an IDZ</b>	<b>1</b>
<b>E. Employment creation</b>	<b>2</b>
At least 0.67 but less than 1 jobs created per R 1 million invested	1
More than 1 jobs created per R 1 million invested	2
<i>As applied to the first R 1,5 billion invested</i>	
<b>F. Training</b>	<b>2</b>
Training expenditure exceeds 2,5% of wage bill	1
Training expenditure exceeds 3 % of wage bill	2
<b>TOTAL</b>	<b>10</b>

**Table 3**

<b>BROWNFIELD / SUBSTANTIAL UPGRADES</b>	
<b>A. Energy efficiency (as measured in energy consumed (MWh) / Value added)</b>	<b>2</b>
<i>Benchmark for upgrades: Own electricity demand in 2006</i>	
<i>Benchmark for expansions: Industry standard in 2006 (See Table 4)</i>	
Decrease in energy demand of at least 12,5% in year that investment is realised	1
Decrease in energy demand of at least 15% in year that investment is realised	2

*Tax Incentives to support Industrial Policy – Draft Proposal*

<b>B. Cleaner production technology</b>	<b>1</b>
In relationship with National Cleaner Production Centre	1
<b>C. Innovation</b>	<b>1</b>
Process demonstrates material improvement in production time, quality , longevity or reduced costs	1
<b>D. Small business linkages</b>	<b>2</b>
Procurement of direct inputs from small businesses	
At least 10%-15% of investment	1
Above 15% of investment	2
<b>E. Employment creation</b>	<b>2</b>
At least 0.5 but less than 1 jobs created per R 1 million	1
More than 1 job per R1 million	2
<i>As applied to the first R 1 billion invested</i>	
<b>F. Training</b>	<b>2</b>
Training expenditure exceeds 2,5% of wage bill	1
Training expenditure exceeds 3 % of wage bill	2
<b>TOTAL</b>	<b>10</b>

**Appendix 1: Energy use benchmarks**

SIC code	Description	MwH / (R 1 million value added)
301 to 304	Manufacture of food	21.538
305 to 306	Manufacture of beverages and tobacco	6.453
311 to 312	Manufacture of textiles	120.806
313 to 315	Manufacture of wearing apparel; dressing and dyeing of fur	2.994
316	Manufacture of leather and products	28.233
317	Manufacture of footwear	5.044
321 to 322	Manufacture of wood and products	48.488
323	Manufacture of paper and products	176.010
324 to 326	Publishing, printing, reproduction of recorded media	0.554
331 to 332	Petroleum refineries; manufacture of coke and petroleum products	15.056
333 to 334	Manufacture of nuclear fuel and basic chemicals	124.667
335 to 336	Manufacture of other chemical products	25.185
337	Manufacture of rubber products	22.388
338	Manufacture of plastic products	108.787
341	Manufacture of glass and products	1.177

*Tax Incentives to support Industrial Policy – Draft Proposal*

342	Manufacture of non-metallic prod. n.e.c.	693.273
351; 353	Manufacture of basic iron and steel; casting of metals	1068.273
352	Manufacture of basic non-ferrous metals	1704.725
354 to 355	Manufacture of fabricated metal products	7.266
356 to 359	Manufacture of machinery and household appliances	1.386
361 to 366	Manufacture electrical machinery and apparatus	2.673
371 to 373	Manufacture of radio, TV, and communication equipment	#VALUE!
374 to 376	Manufacture of medical, precision and optical instruments, watches, clocks	2.589
381 to 383	Manufacture of motor vehicles and trailers	3.858
384 to 386	Manufacture of other transport equipment	0.721
391	Manufacture of furniture	1.565
392; 395	Manufacturing n.e.c.; recycling, small scale and informal	0.744





**Appendix 2: Tax Holiday Programme**

**Regulations on the Tax Holiday Programme (Section 37H)**

<b>Criteria</b>	<b>Requirements</b>
Investment	Size of investment (min R 3 million)
	Eligible investment (land and equipment)
a. Spatial component	55 council and municipal areas were identified
b. Manufacturing industry component	96 industries identified by SIC code
c. Human resource component	Ratio of human resource remuneration to value added (at least 55%)
Not substantially the same as existing project	Expansion of scale and scope of project
	Investment greater than cost price of machinery
	Not more than 40% of intended production derived from existing machinery
	Human resourced are retained and retrained
Financial viability	Asset management ratios
	Debt management ratios
	Liquidity ratios
	Profitability ratios
	(As calculated on pro forma statements)
	NOTE: Support from other programmes is deducted from income.
National competitiveness	Impact on prices of final products, if an intermediary product
	Impact on local market share of existing producers
Duration of tax holiday	Dependant on number of components of project certified as eligible (2-6 years) (Max 10 years)
Utilisation of resources	Regarding impact of use on the environment
	Competitive impact of use of technology
	Commitment to training
Evaluation and monitoring	Certification by auditor of financial statements, manufacture of approved products and calculation of ratios

**Appendix 3: Strategic Investment Project**

**Regulations on the Strategic Investments Project (Section 12G).**

Criteria	Requirements	
Eligible industries	Any manufacturing or products, goods, articles (excluding tobacco) that is classified under "major Division 3: Manufacturing" in the SIC	
	Any article which is not classified yet, should in the view of the adjudication committee be contemplated to be classified as Division 3 goods.	
	Research and development (SIC 8710)	
	Computer and computer related activities (SIC 8610, 8620, 8630 and 8640)	
Investment	Exceed R 50 million within 4 years of approval	
	Maximum of R 10 billion deductions. About R3.0 billion in tax forgone.	
Increase in production and displacement	Not net reduction in jobs in the sector	
	Losses of production for other businesses not greater than 40% of production of new project	
Expansion of existing industrial project	Production of new project at least 135% of existing project	
Non-eligible concurrent benefits	Regional (and Simplified regional) IDP	
	MIDP	
	Small Medium Manufacturing Development Programme	
	Productivity Asset Allowance	
	Small Medium Enterprise Development Programme	
	National Industry Participation Programme Defence Industrial Participation Programme	
Long term commercial viability	Pre-tax earnings to sales ratio	
	Within 5 years from date of commercial production	
Company and connected persons are taxpayers	Certification by SARS	
Reporting	Annually, within six months of assessment	
Withdrawal of support	Changes in material facts that make project ineligible	
	Failure to submit report	
	Fraudulent information for approval	
Strategic points system to determine:		<b>Points</b>
<i>With preferred status</i>		<i>Min 6</i>
<i>Without preferred status</i>		<i>Min 4</i>
Upgrading industry	Previously unused; or arose from another industrial project	1
	Material significance i.t.o. delivery times, reduced cost or increased quality	

*Tax Incentives to support Industrial Policy – Draft Proposal*

	Needs substantial capital investment	
Key component to industry cluster	The addition of the project leads to reduced cost, increased quality or improve efficiency	
	Fills an identified gap of dti / industry cluster	1
Value added process	Contains value added (of at least 35%)	1
Business linkages	Raw materials from SMMEs (at least 10% or 20%)	1 or 2
	At least 5% of industrial assets are for public use	1
Direct and indirect employment creation	Number of full-time jobs (3-6) per R 1million in cost of industrial assets	1 to 4

**Appendix 4:**

A regression analysis was done to see what the relationship between employment creation and investment is. We do not hypothesise that gross fixed capital formation is a direct cause for employment creation, for that reason we are not too concerned about the significance of that coefficient. The size of the coefficient is important.

<i>Regression Statistics</i>	
Multiple R	0.9101
R Square	0.8282
Adjusted R Square	0.8145
Standard Error	43440.1717
Observations	55

ANOVA						
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>	
Regression	4	4.54966E+11	1.14E+11	60.27482772	1.62106E-18	
Residual	50	94352425702	1.89E+09			
Total	54	5.49319E+11				

**Dependant variable: Employment in manufacturing**

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	999382.143	391616.054	2.5519	0.01382	212798.17	1785966.12
GFCF (millions)	3.156	2.469	1.2786	0.20696	-1.80	8.11
ULC	-6568.549	775.359	-8.4716	0.00000	-8125.90	-5011.20
CU	11112.920	4749.088	2.3400	0.02332	1574.10	20651.74
Prime	-1252.283	2740.650	-0.4569	0.64970	-6757.04	4252.47

Quarterly data from 1994:01 to 2007:3