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Depreciation allowances in South Africa

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The corporate income tax gap in South Africa - A top-down approach

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The nature and impact of depreciation allowances in South Africa

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1. Introduction and methodology

Methodology

- Literature study
- Data extraction, cleaning, verification and classification
- Investigates the nature and value of tax benefits to companies from tax depreciation allowances in South Africa, using SARS data
- Explores the sectoral distribution of the allowances

2. Literature

Literature – General (1)

- From tax incentives to influence private-sector investment for macroeconomic stabilisation purposes, to investment promotion per se.
- Governments use tax incentives to overcome 3 sets of hurdles to investment: (1) tax-related constraints (e.g. relatively high CIT rates), (2) nontax-related economic constraints (e.g. inadequate communications systems and labour-market rigidities) and (3) non-economic constraints (e.g. corruption and regulatory uncertainty)
- SA's National Development Plan: to raise total gross fixed capital formation to 30% of GDP in 2030 (1/3 to be public sector fixed investment
- Accelerated depreciation allowances is one type of investment incentive that reduces METR

Literature - General (2)

- **Measures to overcome the *actual* barriers to investment are likely to be more effective than compensatory tax incentives would be (see James, 2009); i.e. address problem at source**
- **Studies of the effectiveness of tax incentives to boost investment have yielded mixed evidence**
- **CIT incentives often redundant: firms receive them for investment projects they would have undertaken even in their absence (Zee et al., 2002)**

3. Depreciation and investment allowances in South Africa

World Bank studies

- **Two reports by the World Bank (2015, 2016) confirmed that tax incentives markedly reduced the tax burden on South African firms and hence corporate investment.**
- **Accelerated depreciation allowances were the main reasons why the METRs were so much lower than the statutory CIT rates (World Bank 2015: 21).**
- **While the calculated METRs varied considerably across sectors (World Bank 2015: 9), the World Bank (2016: 6) stated that the METRs for mining and manufacturing implied 'very generous' incentives.**

Special depreciation allowances, SA

Act sect	Asset	Life / rate
12B	Renewable energy assets	50%, 30%, 20% 3 yrs
12C	Manufacturing assets	40:20:20:20 New
12D	Pipelines, transmissions & rail lines	Varied: 10, 5, 6.7
12DA	Rolling stock	20%, 5 yrs
12E	Small business corporations	100% (manf); 50, 30 ,20 (non-m)
12F	Airport and port assets	5% pa on cost
13 (1)	Buildings & improvements in manufact	> 01-10-1999: 5% p.a.
13bis	Buildings used by hotel keepers	> 04-06-2004: 10% p.a.
13ter	Residential buildings	Applicable built < 21-10-2018
13quat	Urban development zones	20% + 10%*8; 25% + 25%*3
13quin	Commercial Buildings	5% p.a.; more if part acquisition

Investment allowances, SA

Act sect	Asset
12I	Industrial Policy Projects (IPP)
12S	Buildings in Special Economic Zones
12U	Additional deduction for roads and fences in respect of the production of renewable energy
13sex	Residential Units
15 and 36	Mining capital allowances Companies involved in mining are allowed a deduction for “capital expenditure” (as defined) incurred, but it may not result in an assessed loss. Balance carried forward
26B & 10th Schedule	Fiscal stability agreements (FSA): Specific provisions for oil & gas companies

Observations about allowances

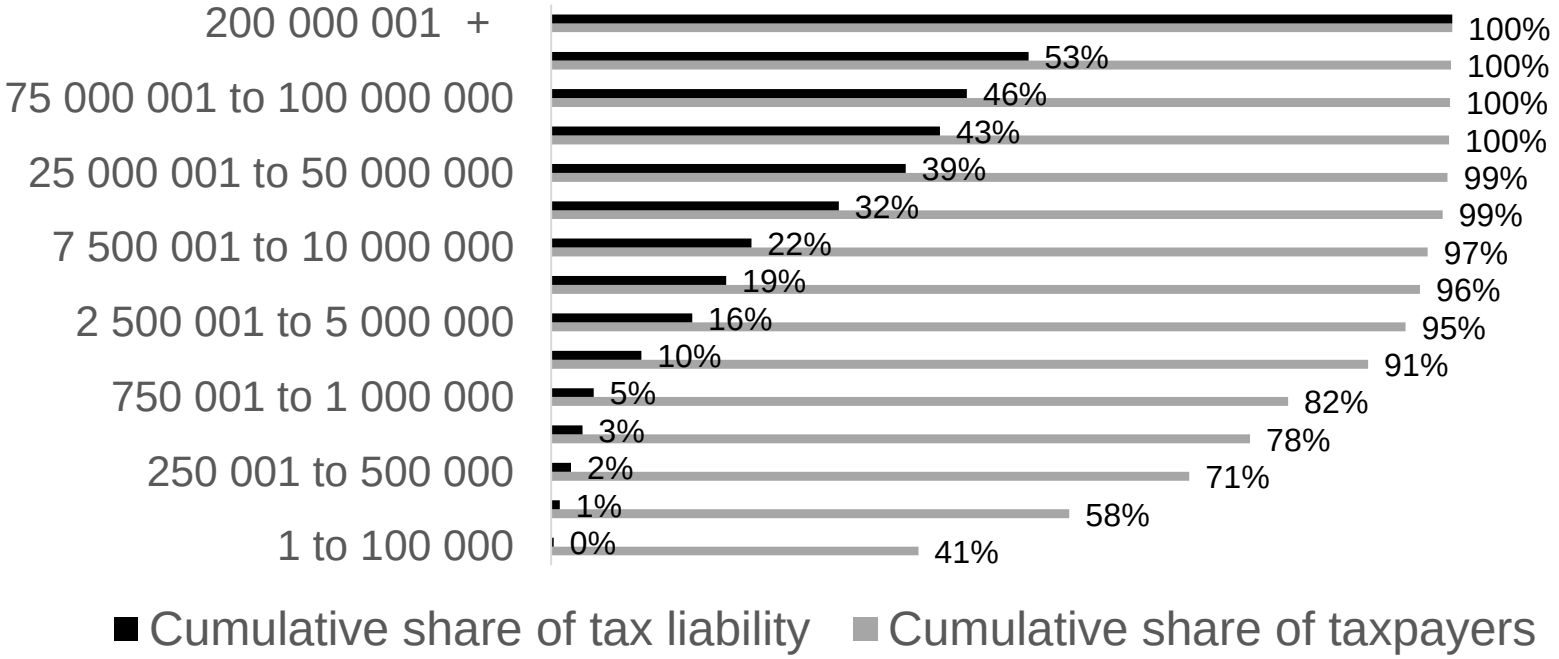
- A number of incentives apply to different sectors according to the nature of business, such as manufacturing and mining
- A number of special allowances legislated to serve specific goals such as to develop a particular activity (e.g. urban development) or industry (e.g. the film industry)
- Both medium- and large-sized companies and smaller companies have access to particular additional tax allowances
- The activities/sectors that receive accelerated depreciation allowances are: agriculture, mining, the film industry, the hotel sector, rolling stock, airports and port assets, urban development zones, small business corporations, special economic zones, and roads and fences in respect of the production of renewable energy

4. Data

Data quality framework, to ensure fit for use

- Cleaned SARS tax computation data, duplications and dormant companies excluded
- Dormant companies' tax records have very little information regarding profit or loss and various other required data; their data were omitted to ensure usefulness and accuracy for the sample
- On average 40% of the population of companies that submitted a return indicated they were dormant in the observed years
- Sample: 410 000 companies, 2014-2017
- Sample data aggregated and classified to distinguish between 5 taxable income groups: $TI<0$; $TI = 0$; $0<TI\leq 1m$; $1m<TI\leq 100m$; $TI\geq 100m$

Cumulative share of tax liabilities (%) and taxpayers (%) and with positive taxable incomes (by group, ZAR values), 2018



5. Company tax benefits from depreciation and investment allowances

Corporate benefits, 2014-7 (R billion, current year prices)

Variables / Items	2014	2015	2016	2017	2014-17	Avg 04-17
Net accounting profit (all)	1 534	1 772	2 125	1 970	7 401	1 850
Net accounting loss (all)	291	694	342	533	1 859	465
TI before assessed losses (all)	636	659	718	739	2 753	688
Taxable loss (all)	190	419	223	214	1 046	261
Accounting depreciation (all)	206	233	235	248	922	231
Tax depreciation allowed (all)	500	575	565	533	2 173	543
Tax investment allowances (all)	3.8	3.5	4.3	4.7	16.4	4.1
Tax depreciation > acc depr (all)	295	343	330	285	1 252	313
Tax benefit of depreciation allowances @ avg rate TI group	42.3	68.0	34.5	27.2	**172.0**	**43.0**
Tax benefit due to investment allowances @ avg rate	0.7	0.6	0.6	0.5	**2.4**	**0.6**
Total tax expenditure (all with taxable income > 0)	42.9	68.6	35.2	27.7	**174.4**	**43.6**

Results (1)

- Accounting records of ± 410,000 companies; accounting profits totalled 7.4 trillion; average annual profits of R1.85 trillion
- Accounting losses R1.86 trillion or average of 464.8 billion pa
- Corporate profits after the tax policy debit and credit adjustments to accounting profits and losses over R2.8 trillion (R 683 bn average)
- Companies with taxable income above R100 million generated 56.4% of the total profits after policy adjustments

Results (2)

- **Companies with TI>R100m generated more than 60% of total TI and tax payable**
- **Companies with TI between R10m and R100m contributed 35%; remainder <R10m**
- **Losses by loss-making companies after debit and credit adjustments totalled more than R1tr or avg R261.4bn pa**
- **Companies with non-taxable income accounted for close to 99% of assessed tax losses after adjustments for tax depreciation and investment allowances**
- **Assessed losses brought forward from previous years: R2.5tr (avg R636.5bn); close to 97% of these losses were carried over by companies in a taxable loss**
- **TI after utilising current and previous year's losses: R2.6tr (avg R872bn)**
  - Chances to recoup losses from prospective future TI must have been on the low side, except for new undertakings with longer lag between investment & profits

Results (3)

- Depreciation deducted as an expense totalled R921.4bn (avg R230.4bn)
- Share of accounting depreciation by companies with TI>R100m pa: 43%; companies with taxable loss: 40%
- Tax depreciation R2.2tr (avg R437 pa)
- Close to 50% of tax depreciation claimed as a debit adjustment by companies in a taxable loss, and 35% by companies with a TI>R100m
- Allowances: general, across-the-board depreciation that applied to all companies and varied according to the type of asset and lifespan allowed for under CIT law, as well as special (accelerated) tax depreciation allowances
- Accounting depreciation minus tax depr: R1 252bn (avg R313bn)
- The tax expenditure cost of this difference at the average tax rates that applied to the different taxable income groups: R172bn (avg R43bn)

Results (4)
Investment allowances

- **Investment allowances totalled R16.4bn (R4.1bn pa)**
- **Tax expenditure at the corporate marginal tax rate of 28%: R4.6bn pa (R1.1bn)**
- **Manufacturing most significant sector accessing investment allowances - share >60%**
- **Avg tax liability of companies in a TI position was R34.7bn pa less, due to the difference between tax depreciation and accounting depreciation.**
- **Avg % difference in tax liabilities of companies TI>R100m pa was 17.8%; companies TI between R10m & R100m 13%; companies TI <R10m 11.6%**

Results (5)
Depreciation and investment allowances

- **Total tax expenditure cost for the Treasury in respect of tax depreciation and investment allowances: R174.4bn (avg 43.6bn pa)**
- **This is equal to 3% of the imputed CIT before accounting for assessed losses carried forward**

Results (6)
Sectoral distribution

- Self-selection options provided by SARS to companies when submitting tax returns; not standard industrial classification sectors
- Duration of these incentives reflect structural rather than cyclical considerations - see structure and timelines of e.g. the provision that apply to pipelines, transmissions line and railway lines, and to urban development zones (signs of sunset clause varied)
- Highest share of total corporate profits after debit and credit adjustments to accounting profits: financial sector (31%), manufacturing (19%) and wholesale and retail trade (15%)
- Sectoral shares in TI and tax liability the same before and after utilization of assessed losses; implies that proportionally the use of carried-over losses was similar between non-capital-intensive and capital-intensive sectors

Results (7)
Sectoral distribution

- **Total avg tax rate (all sectors) about 2.5%pts below the statutory company tax rate of 28%**
- **This suggests scope for an across-the-board reduction in the company tax rate to 25.5% in place of all depreciation allowances**
- **If only accelerated allowances were to be eliminated: ≤27% (given that total tax depreciation = about double accounting depreciation)**
- **Accounting depreciation as % of total fixed assets = 3.5% for companies in a taxable loss; for companies with TI>R100m pa 8.3%**
- **Tax depreciation as % of total fixed assets = 10.2% for companies with a taxable loss; for companies with TI>R100m 15.7%**

Depreciation allowances and employment (1)

- What is important is the complementarity between capital and labour, given the capital intensity of any particular sector, rather than the capital intensity itself
- One way of calculating intrinsic capital/labour ratio: divide accounting depreciation (i.e. ‘consumption’ of capital) by employment cost, thereby assessing likely employment to be added before deciding on any such incentives – strongly emphasised in the literature
- On average, electricity, mining, and transport were the most capital-intensive sectors; gold mining receives depreciation allowances in recognition of long lag between investment and income generation; transport enjoys investment allowances

Average ratio of (i) depreciation cost (D) to employment cost (E) by sector; (ii) total employment; (iii) ratio: gross capital formation (C) to employment (L), selected sectors, various years

Sector	Period	D/E	Employment numbers (1000)*			C/L		
			Highest	Lowest	'04-18 Chng	2004-18	2009-13	2014-18
Forestry & fishing	2004-18	0.22						
Mining	2016-18	0.37	522 (2012)	444 (2005); 455 (2018)	0	58 421	90 516	79 716
Manufacturing	2004-18	0.19	1 451 (2004)	1 219 (2018)	121	48 520	64 906	85 820
Electricity	2004-18	0.48						
Construction	2004-18	0.13	737 (2008)	534 (2004)	91	7 442	11 256	11 587
Trade	2004-18	0.11	22 215 ('18)	1846 (2004)	651	11 384	12 373	12 877
Transport	2004-18	0.36						
Business services	2004-18	0.08						
Personal servces	2004-18	0.11						

*Calculated from SARB 2010 employment data, index numbers for other years.
**R/worker (deflated by urban CPI index, normalised on 2004)
Sources: StatsSA Annual Financial Statistics Survey (AFS): SARB Statistical data

Depreciation allowances and employment (2)

- Another metric: ratio of capital formation to number of employees; clearly shows rising capital cost per worker in real terms, i.e. trend of capital intensification and reduced labour absorption
- Mining: rise during middle period partly reversed from 2013 to 2018
- Trade became major employment source, also reflecting small business employment, which receives special depreciation allowances
- Employment a function of many things other than depreciation allowances; however, in aggregate not possible to attribute any employment trend directly to presence or absence of depreciation allowances; even difficult sectorally
- Micro analysis required of individual projects that receive special depreciation allowances; cost-benefit before introduction, periodic monitoring

Impact of tax depreciation on loss-making companies

- Companies with annual TI>R100m: on average a gross profit ratio of 25% and a net accounting profit ratio of 14%, with a TI ratio of 9%
- Companies in a taxable loss position do have gross profit ratios close to above, but net accounting ratios are minute, and they have taxable loss ratios
- Companies with TI< R10m have close to zero ratios
- Tax losses carried forward: >R1tr over the 4 years
- Tax depreciation enables companies to reduce their taxable income by writing off more than accounting depreciation - R1 251bn
- When companies make taxable losses, tax depreciation allowances contribute to (bigger) losses that are carried forwards; as long as companies incur taxable losses on account of tax depreciation, the latter presents an incentive for highly capital-intensive companies to increase capital expenditures that could be at the cost of more labour-intensive activities

Tax benefits from investment allowances

- **Total investment allowances R2.4m (1.7% of tax depreciation allowances)**
- **Investment allowances are in respect of: research and development, industrial assets, land and conservation; and brownfield and greenfield projects**
- **Not too surprising, therefore, that more than half of the benefits accrued to manufacturing, in which the ratio of investment allowances to depreciation allowances of 7.5 per cent was much higher than the average of 1.7 per cent for all the sectors combined**

Three sets of depreciation data

- **SARB: depreciation data in total and by sector; currently under revision.**
  - Use permanent inventory model to estimate consumption of fixed capital based on gross fixed capital formation and service life expectations (straight-line depreciation method); service life of an asset often different from depreciation period allowed for tax purposes
  - Service life of an asset differs across industries
- **StatsSA (2018) publishes data (by economic sector) on the consumption of capital; collects the data from financial statements of companies; hence, depreciation would be as defined by the accounting standards, and the depreciation rates would be as per company policy**
- **The information used in this paper is the first set of verified micro accounting depreciation and tax depreciation data that SARS and the National Treasury have made accessible to researchers**
- **Scholars to decide which data set is best for their particular research**

Further work

- **The SARS tax computation data set was investigated to assess the feasibility of panel data regression analysis, using time series and cross-sectional data.**
- **The volatility of the firm-level data, and the reduction in data points that a removal of outliers would have caused, did not make it possible to obtain credible results.**
- **Further micro data verification will be required for this purpose.**

6. Policy implications

Policy implications (1)

- **Tax losses carried forward: > R1 trillion 2014-17. As long as companies incur taxable losses on account of tax depreciation, the latter presents an incentive for high capital-intensive companies to increase capital expenditures that could be at the cost of more labour-intensive activities**
- **In the 2020 Budget Government proposes broadening the corporate income tax base by restricting the offset of assessed losses carried forward to 80% of TI (as of 1 January 2021); essentially a cash-flow measure that deals with symptoms and not causes - real issue is perpetual availability of tax incentive, irrespective of whether profit is made or not**

Policy implications (2)

- Tax depreciation rules should be more aligned with accounting depreciation and tax incentive schemes should contain a sunset clause with regular monitoring so that the continuation of tax-driven businesses can be curtailed earlier rather than later
- Many economists doubtful or dismissive of effectiveness of tax incentives, especially when their ability to achieve social benefits is suspect, such as job creation, the transfer and indigenisation of scarce skills and technology and environmental benefits
- An across-the-board reduction in the corporate tax rate should always be considered as an alternative and any prospective tax incentive should be subject to proper cost-benefit analysis

Thank you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