

**REFORM OPTION FOR PENSION FUND
CONTRIBUTION AS TAX EXPENDITURE IN
SOUTH AFRICA: A MICROSIMULATION MODEL
APPROACH USING TAX ADMINISTRATIVE DATA**

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INTRODUCTORY REMARKS

- Tax systems are primarily designed to raise revenues efficiently to finance government spending. Nonetheless, the tax system is used to attain socio-economic objectives such as a more equitable distribution of income or to incentivise certain outcomes.
- Tax expenditures are used to achieve such goals and refer to the preferential treatment of such expenditures in the tax system.
- In SA, for the 2020/21 fiscal year, the cost of tax expenditures were estimated at 4.5% of GDP. The tax expenditures of the personal income tax system account for the main share at 57% of total tax expenditures.
- The two main personal income tax expenditures are retirement contribution deductions and medical tax credits accounting for 69% and 25% respectively to total personal income tax expenditures in 2020/21.

RESEARCH FOCUS

- The initial design of personal income tax expenditures does not necessarily provide optimal distributional gains. One such example is the previous medical tax deductions in the South African tax system (converted to a tax credit in 2012).
- A pertinent question is **whether redistributive gains are possible by further restructuring tax deduction expenditures** of the South African personal income tax system, with specific focus on retirement contribution deductions.

RESEARCH OBJECTIVES

- Analyse the existing PIT system with a focus on the retirement contribution deductions in terms of the tax revenue foregone and the distributional equity implications.
- Consider tax policy reforms to convert the retirement contribution deductions to a tax credit and analyse the outcome of such a conversion in terms of tax revenue mobilisation and distributional equity implications.

CURRENT RETIREMENT CONTRIBUTION DEDUCTIONS TAX EXPENDITURE

The allowable tax deduction is the lesser of the following options:

- R350 000; or
- 27.5% of the greater of
 - remuneration (excluding retirement lump sum benefits, withdrawal lump sum benefits and severance benefits); or
 - taxable income (including passive income and taxable capital gains), but excluding retirement lump sum benefits, withdrawal lump sum benefits and severance benefits and before any s11F and s18A deduction; or
- the taxable income (excluding any taxable capital gain and retirement lump sum benefits, withdrawal lump sum benefits and severance benefits) and before any s11F and s18A deduction.”

(SARS, n.d.: 90)

METHOD: PITMOD MICROSIMULATION MODEL

- The PITMOD microsimulation model is a static micro-simulation model developed using anonymised South African personal income tax administration data provided by SARS.
- The retirement contribution reform options are simulated based on the 2019/20 tax year (latest tax administrative data available).
 - The distribution of registered individuals with income below and above the minimum tax thresholds are included in the analysis.
- Research method: apply a unique micro-simulation model underpinned by the EUROMOD platform (tax-benefit micro-simulation model) and using personal income tax administration data.

DEVELOPMENT OF PITMOD MICROSIMULATION MODEL

- A collaborative effort between SASPRI and the South African Revenue Service (SARS) under the auspices of the UNU-WIDER led SA-TIED Programme Phase 1.
- **Challenges of developing PITMOD:**
 - discovering the (very large) subset of PIT source codes required,
 - managing the large input dataset c. 15 million cases and nearly 2000 variables,
 - unpacking the very detailed PIT rules with a feedback loop to data preparation,
 - developing a comprehensive summary statistics tool.
- Developed quality assurance tax payable calculations, firstly from ITR12 assessed cases, then ITR12 data and lastly IRP5 and IT3 (a) tax certificates and identified extreme outlier cases.
- The model interface in detail, define the type of policies and income lists, with the spine consisting of systems, functions, policies and parameters.
- Policy and system functions are defined, and each function is divided into a series of parameters.
- PITMOD output is based on two inputs, anonymised taxpayer data, also 1% and 10% samples, and tax policy rules to calculate on an accrual basis the tax liability on an individual level. The results are written to an output file.

PERSONAL INCOME TAX SYSTEM IN SA

A FOCUS ON RETIREMENT CONTRIBUTION DEDUCTIONS IN 2019/20

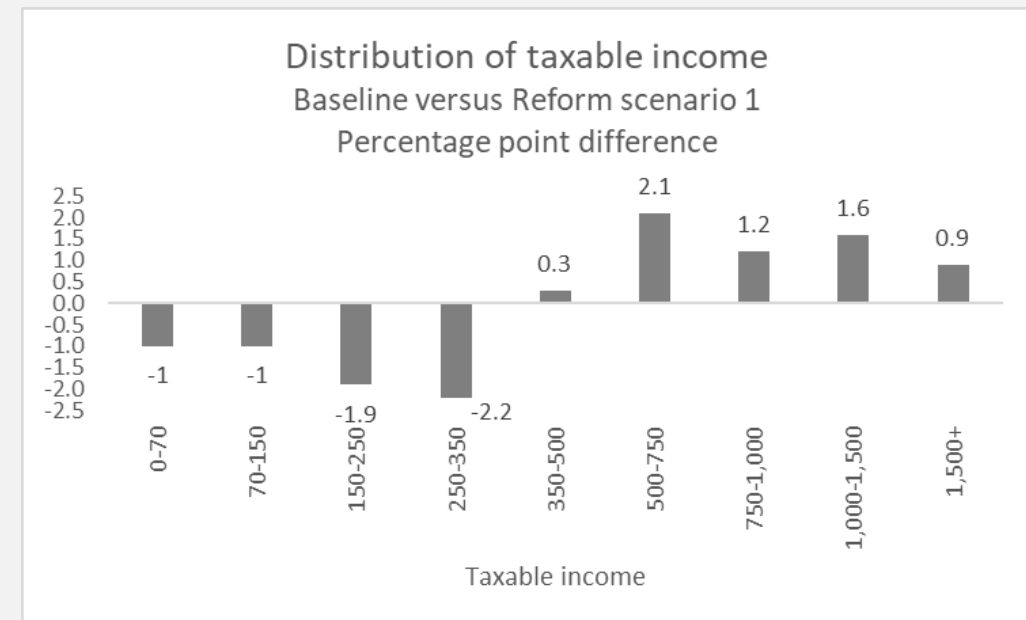
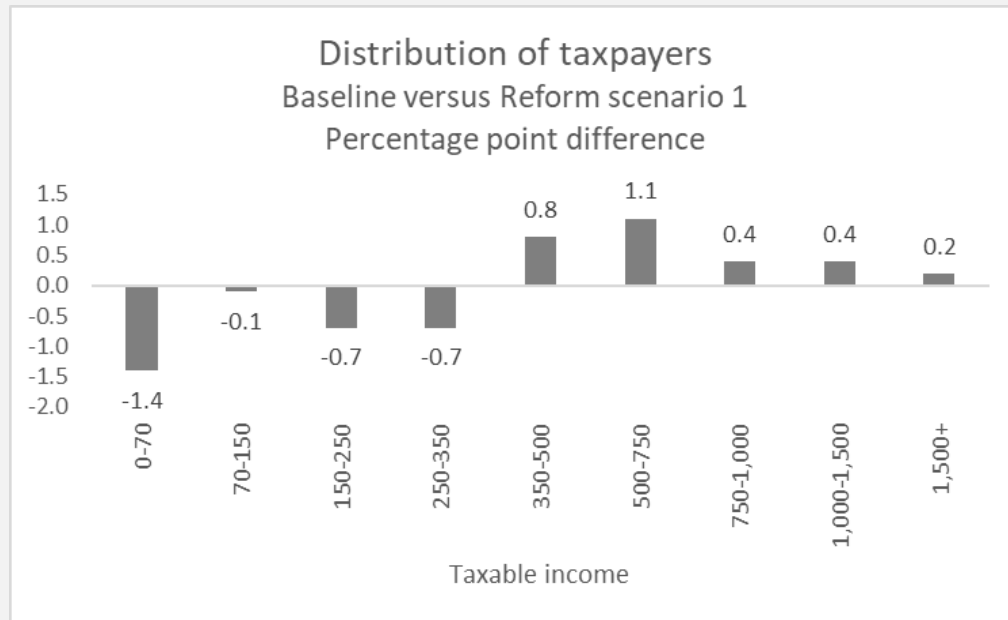
- Retirement contribution deductions claimed by 7.03 million taxpayers, **totalling R275 billion** (10.1% of total taxable income). Close to 48% of taxpayers with taxable income contributed towards retirement funds.
- **Tax expenditure cost amounted to R91.7 billion** or 16.9% of total final tax liability.
- The average retirement contribution amount deducted was R39 121 p.a.(median value R21 158 p.a.). The variance indicates the concentration of deductions due to the distribution of personal income taxpayers.
- The average deduction by taxpayers with taxable income above R1.5 million per annum was R175 193 per annum.
- **The benefit of a tax deduction at a marginal tax rate of 45% is high in relation to taxpayers who contribute closer to the average retirement contribution deduction at a marginal tax rate of 26% - regressive outcome.**

RETIREMENT CONTRIBUTION SIMULATIONS

- The outcome of the reform scenarios depends on the tax deductions versus tax credits structural changes to the tax system as well as the distribution of taxpayers by income and the distribution of taxpayers contributing to retirement funds.
- Reform scenario 1: Abolishment of retirement contribution tax deductions
- Reform scenario 2: Conversion of retirement contribution tax deductions to tax credits
 - Three conversion rates were applied (to allowable retirement deductions):
 - 1) 35% tax revenue neutral conversion rate
 - 2) 26% average contribution conversion rate (marginal rate of the second income bracket)
 - 3) 31% conversion rate (marginal rate of the third income bracket)

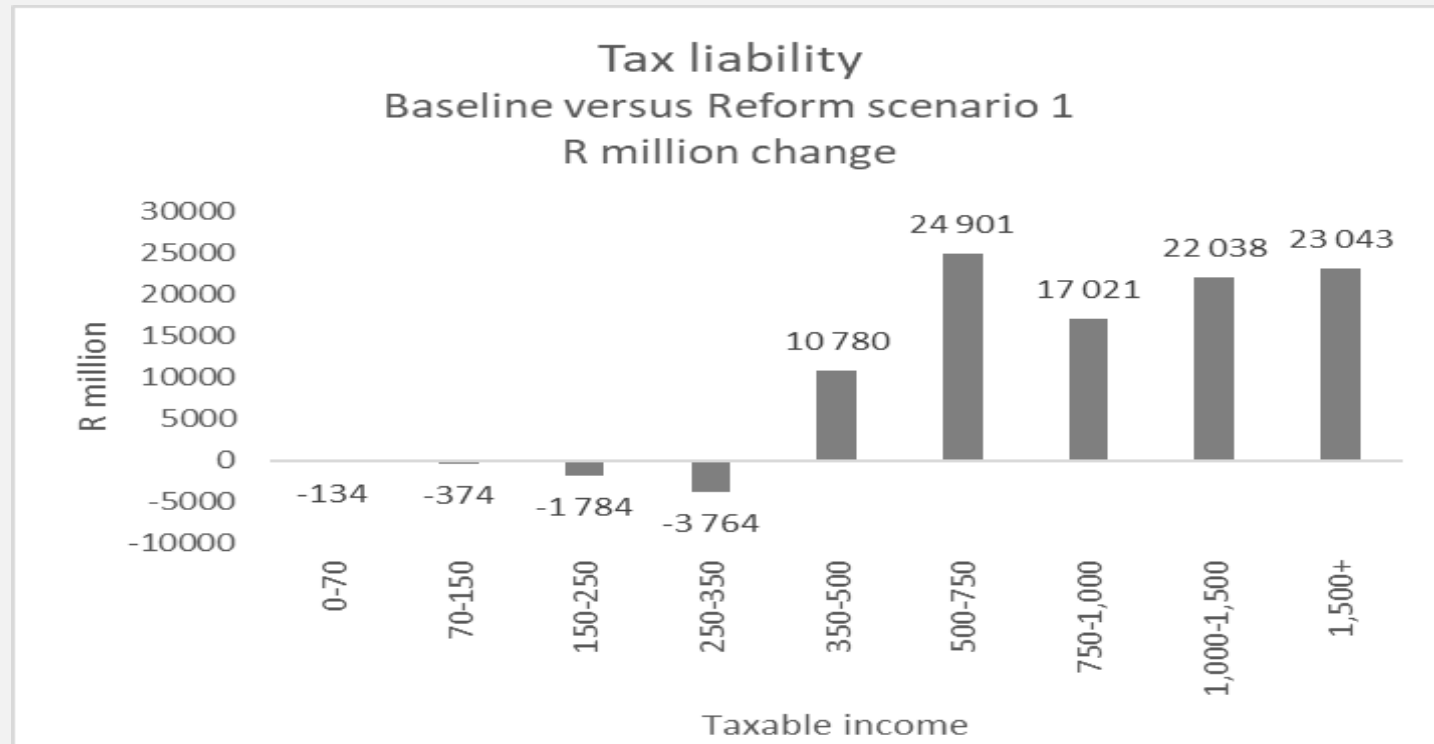
RESULTS: REFORM SCENARIO 1 ABOLISH THE DEDUCTION FOR RETIREMENT CONTRIBUTIONS

- There is an upward shift of taxpayers on the taxable income scale (given that the taxable income of individuals that were below the minimum tax threshold due to the deduction of retirement contributions, increases to above the minimum tax threshold and the taxable income of taxpayers that made retirement contributions increased).
- Taxable income increases by R274.8 billion from R2.7 trillion to R3.0 trillion.** Taxable income of taxpayers in the R500 000 to R750 000 income group are simulated to increase the most, namely by close to R102.6 billion or 2.1 percentage points and the increase in taxable income is equal to 37.3% of the total increase in taxable income.



RESULTS: REFORM SCENARIO 1 ABOLISH THE DEDUCTION FOR RETIREMENT CONTRIBUTIONS

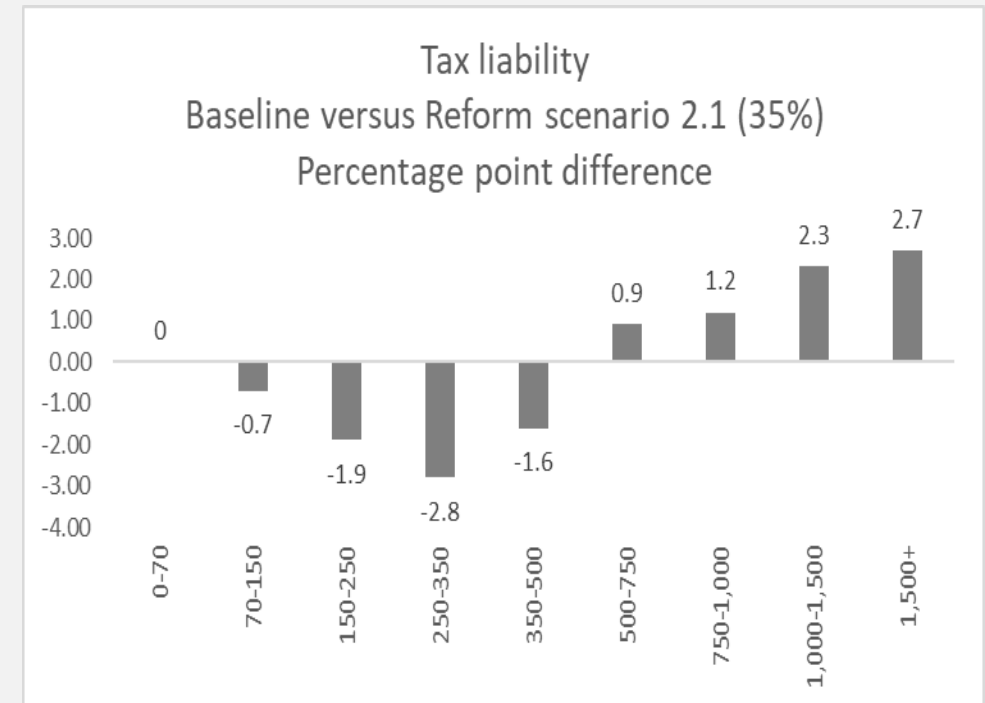
- Final tax liability increases by **R91.7 billion** to R634.6 billion or by 16.9%. The number of taxpayers with a final tax liability is simulated to increase by 3.3% to 7.5 million taxpayers from 7.2 million taxpayers.



RESULTS: SIMULATION 2 – CASE I

CONVERT THE RETIREMENT CONTRIBUTION DEDUCTION TO A TAX CREDIT AT A RATE OF 35% - TAX REVENUE NEUTRAL

- **Revenue neutral simulation at a conversion rate of 35%.**
- A tax revenue neutral reform scenario benefits taxpayers with taxable income less than R500 000 per annum.
- Taxpayers in the R250 000 to R350 000 taxpayer income group benefit the most with a simulated decrease in their tax liability of -2.8 percentage points.
- **Most of the increase in average tax liability is simulated to be borne by taxpayers earning more than R1 million taxable income per annum** taxed at a marginal tax rate of 41% increasing by 2.3 ppts and those with taxable income above R1.5 million per annum taxed at the 45% marginal tax rate increasing by 2.7 ppts.

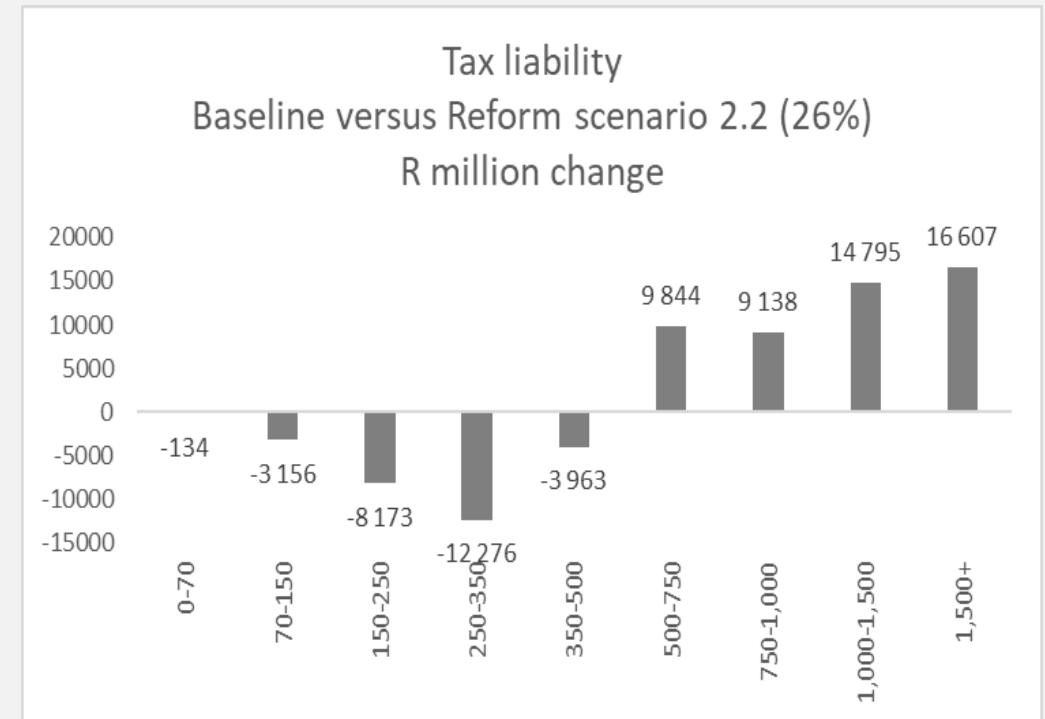


- In this reform scenario the PIT system becomes more progressive with an increase in the GINI coefficient for final tax liability increasing by 0.8 percentage points from 85.2 to 86.0.
- On an average the net incomes of all the taxable income groups are simulated to be less after the reform.

RESULTS: SIMULATION 2 – CASE 2

CONVERT THE RETIREMENT CONTRIBUTION DEDUCTION TO A TAX CREDIT AT A RATE OF 26% - MARGINAL TAX RATE OF SECOND INCOME BRACKET

- **Total taxable income increases by R274.8 billion and final tax liability by R22.7 billion or 4,2%.**
- The increase in average taxable income for taxpayers with taxable income above R1 million per annum is R19 156 (4.9%) and for those with taxable income above R1.5 million per annum the average increase is R33 358 or 2.9%.
- The total number of individuals with a final tax liability reduces by 107 400 (1,5%) as taxpayers claiming a deduction for retirement contributions at a marginal tax rate of 18% benefit in this scenario from a tax credit at a conversion rate of 26%, which reduces their final tax liability.
- **The average final tax liability reduces for taxpayers with taxable income less than R500 000 per annum.**

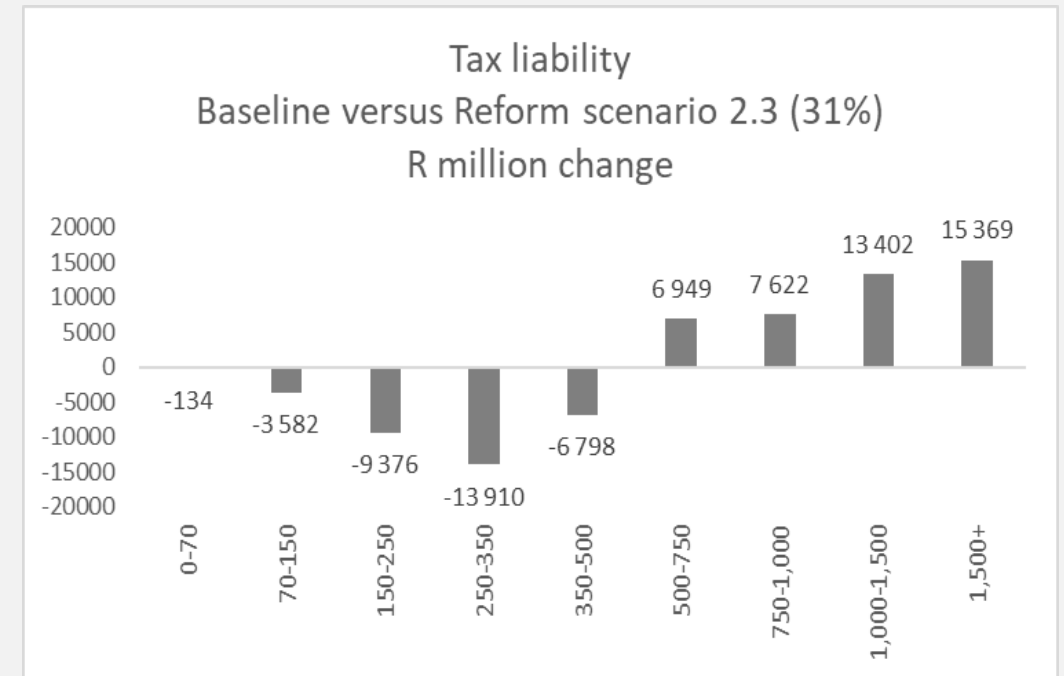


- **Most of the increase in average tax liability is simulated to be borne by taxpayers earning more than R1 million taxable income per annum with a marginal tax rate of 41% and those with taxable income above R1.5 million per annum taxed at the 45% marginal tax rate.**
- In this reform scenario the PIT system becomes more progressive with an increase in the GINI coefficient for final tax liability increasing by 0.3 percentage points from 85.2 to 85.5.

RESULTS: SIMULATION 2 – CASE 3

CONVERT THE RETIREMENT CONTRIBUTION DEDUCTION TO A TAX CREDIT AT A RATE OF 31% - MARGINAL TAX RATE OF THIRD INCOME BRACKET

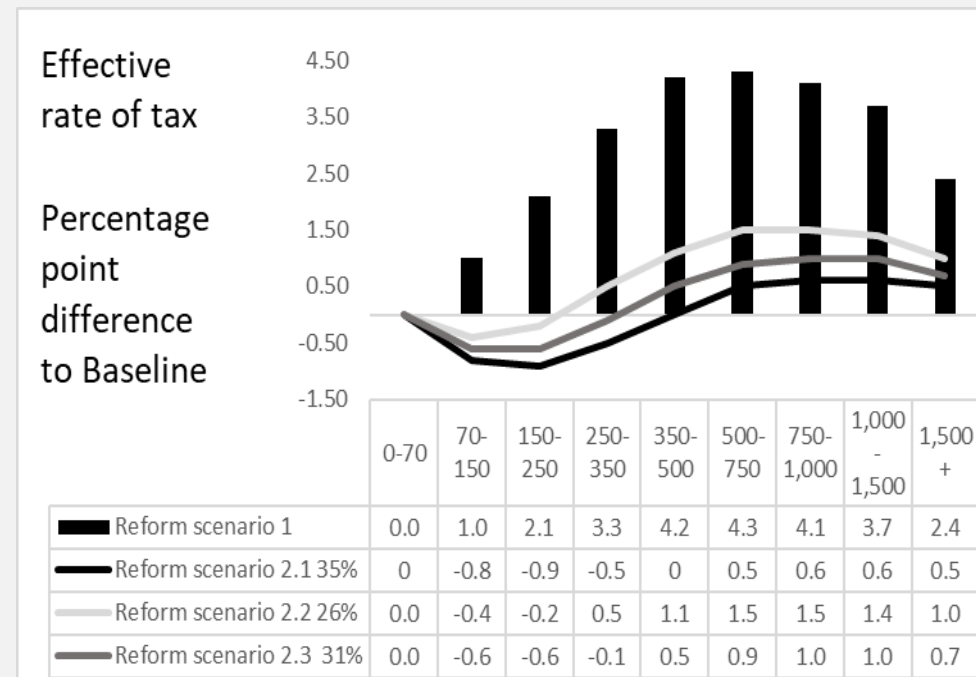
- **Final tax liability increases by R9.5 billion (more taxpayers benefitting from the higher conversion rate compared to the 26% conversion rate).**
- The total number of individuals with a final tax liability reduces by 180 300 (2,5%) as taxpayers claiming a deduction for retirement contributions at marginal tax rates of 18% and 26% benefit from a tax credit at a conversion rate of 31%, reducing their final tax liability.
- **The average tax liability of taxpayers with taxable income less than R500,000 per annum is reduced.**



- The GINI coefficient for final tax liability in the 31% conversion rate scenario increases by 0.6 basis points to 85.8, simulating to increasing the progressivity of the PIT system by a higher percentage than the 26% conversion rate scenario due to the concentration of taxpayers contributing to retirement in the first two taxable income brackets.

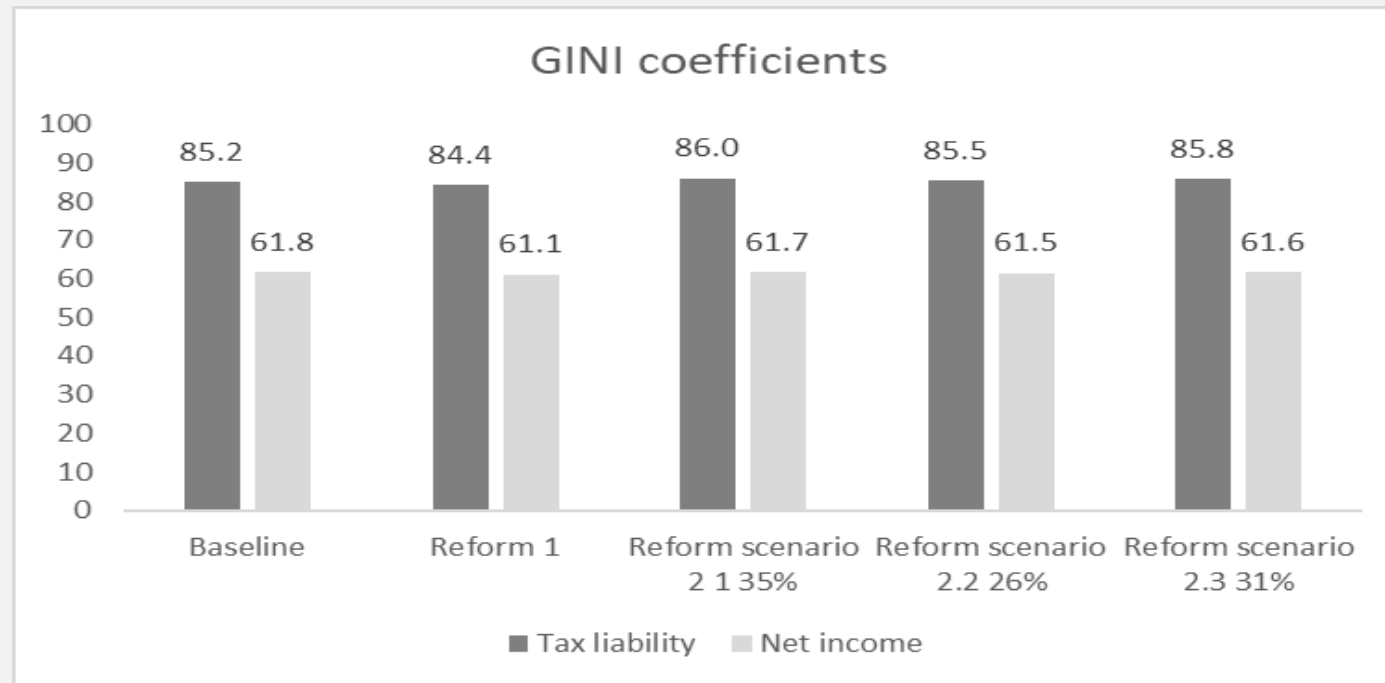
MAIN FINDINGS

- Government’s indirect approach to incentivise the provision for old age by allowing a tax deduction for retirement contributions is costly in terms of tax revenue forgone of R91.7 billion or close to 17% of total tax liability in the 2019/20 tax year.
- Studies have shown that saving incentives have a distributional effect with higher income earners benefitting the most due to their ability to shuffle their savings and assets.
- A tax deduction benefits higher income earners that are taxed at higher marginal tax rates.
- A conversion rate of 35% is the simulated revenue neutral rate.
- Given the concentration of personal income taxpayers in the distribution of taxpayers and the distribution of taxpayers contributing to pension funds, the mobilisation of tax revenue by **switching to a tax credit system is more effective at the 26% conversion rate with a net revenue outcome of R22.7 billion** or an increase in tax revenue of 4.2%.
- The 31% conversion rate yielded less additional tax revenue of R9.5 billion for an outcome that reduces the average tax liability relatively more for taxpayers with taxable income below R500 000 per annum and also those with higher marginal tax rates.



MAIN FINDINGS

- Policy reform options aimed at mobilising tax revenue for a more comprehensive social security system imply **considering a 26% conversion tax credit system that will protect low-income earners from an increase in tax liability** and reduce the tax liability of low-income earners contributing to pension funds.



WAY FORWARD...

- Further distributional analysis on low-income earners and those earning below and above the minimum tax threshold to **refine the impact analysis on low-income earners contributing to pension funds.**
- Further analyses may include the **use of the SAMOD simulation model (including the South African social assistance benefit system) to simulate distributional implications of increased social assistance grants funded by the simulated increase in tax revenues.**
- Also consider simulations of changes to parameters based on the effectiveness of tax policy expenditures to incentivise retirement savings and the concentration rate of the current average annual contributions:
 - Change in cap (R350 000)
 - Percentage deduction (27.5%)

