

SWEDISH TAX POLICY: RECENT TRENDS AND FUTURE CHALLENGES

A report to

Expertgruppen för Studier i Offentlig ekonomi

by professor Peter Birch Sørensen

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Main themes of the report

- What were the guiding principles of Swedish tax policy during the last twenty years?
- How big is the income loss (loss of economic efficiency) caused by deviations from neutral and uniform taxation?
- How could the income loss be reduced without sacrificing the goal of equity in taxation?

Chapter 1: The Swedish tax system in international context

Evolution since 1990:

- The total tax-to-GDP ratio has been roughly constant in the OECD but has fallen by several percentage points in Sweden
- The total average tax rate on labour income has been roughly constant in the OECD but has fallen in Sweden

Chapter 1: The Swedish tax system in international context

- Sweden relies more heavily on the personal income tax than the average OECD country
- Social security taxes and the VAT generate about the same share of total revenue in Sweden as in the average OECD country
- Excise taxes, property taxes and the corporate income tax contribute a smaller fraction of total revenue in Sweden than in the EU15 area

Chapter 2: The Tax Reform of the Century

- Very ambitious reform: tax shifting amounting to 6% of GDP
- Guiding principles: neutrality and uniformity of taxation; dual income tax to account for inflation
- Significant tax base broadening combined with large tax rate cuts
- Corporate income tax rate almost cut in half, financed by tax base broadening
- Uniform VAT
- Cut in marginal and average tax burden on labour, financed in part by higher property tax

Chapter 2: The Tax Reform of the Century

- Unfortunate timing of the reform: in the short term it exacerbated the recession of 1992-93
- In the long term, the 1991 reform has improved economic efficiency by reducing tax distortions to labour supply, investment and portfolio composition

Chapter 3: Trends in Swedish tax policy since the Tax Reform of the Century

- Introduction of Earned Income Tax Credit
- Selective cuts in social security taxes
- Abolition of inheritance tax and wealth tax
- More lenient taxation of closely held companies
- Tax deduction for purchases of household services

Major departures from the principles of the 1991 reform:

- Reintroduction of a differentiated VAT
- Värnskaften
- Property tax reform of 2008

Efficiency losses
caused by the
current Swedish tax system

Chapter 4: The deadweight loss from taxation in Sweden

- Purpose of chapter: to estimate the loss of economic efficiency (“the marginal deadweight loss”) caused by an increase in taxes on
 - labour income
 - savings income
 - business income
 - consumption

Measuring marginal deadweight loss:

Chapter 4: The deadweight loss from taxation in Sweden

Marginal deadweight loss from tax increase (ΔDWL) =

$$\underbrace{\text{Additional burden on taxpayers}}_{= \text{"static" revenue change } (\Delta R^s)} - \underbrace{\text{additional revenue to the government}}_{= \text{"static" revenue change } (\Delta R^s) + \text{"dynamic" revenue change } (\Delta R^d)} = -\Delta R^d$$

$\Delta R^s \equiv$ revenue change in the absence of behavioural responses

$\Delta R^d \equiv$ revenue change caused by behavioural responses

$$\text{Degree of "self-financing"} \equiv \frac{\Delta DWL}{\Delta R^s} = \frac{-\Delta R^d}{\Delta R^s}$$

Chapter 4: The deadweight loss from taxation in Sweden

- Calculation of dynamic revenue changes requires estimates of the elasticities of labour supply, savings and investment plus estimates of initial effective marginal tax rates plus national income accounts data on the size of tax bases
- The calculation of dynamic revenue changes accounts for the interaction among tax bases
- Because of substantial uncertainties, the main scenarios in the report make conservative assumptions on the size of elasticities (sensitivity analysis is also carried out)

Chapter 4: The deadweight loss from taxation in Sweden

Degree of self-financing (*DSF*) associated with a tax rate cut (%)

<i>Cut in effective marginal tax rate on¹</i>	<i>Contribution to DSF from higher revenue from taxes on</i>				<i>Total DSF</i>
	<i>Labour income</i>	<i>Consumption</i>	<i>Business income</i>	<i>Savings income</i>	
<i>Labour income</i>	18.2	4.8	0.4	0.6	24.0
<i>Consumption</i>	12.1	3.2	0.3	0.4	16.0
<i>Business income</i>	18.2	4.8	5.8	0.6	29.4
<i>Savings income</i>	14.2	3.7	0.3	17.2	35.4

1. The figures show the effect of an identical cut in the marginal tax rate for all taxpayers.

Chapter 4: The deadweight loss from taxation in Sweden

Robust findings:

DSF (consumption tax)

< DSF (labour income tax)

< DSF (business income tax on *normal* return)

The estimated DSF for the savings income tax is more uncertain, but the high value of the DSF suggests that the principle of dual income taxation is well motivated

Chapter 5: Taxes on consumption and pollution

Issues treated in the chapter:

- optimal design of the VAT
- optimal design of the excise taxes ("sin" taxes and "green" taxes)
- taxation of housing consumption

The chapter offers estimates of the

- deadweight loss from the non-uniform VAT
- deadweight loss from the non-uniform taxation of rental and owner-occupied housing
- deadweight loss from the non-uniform taxation of housing consumption and other consumption

Future directions for
Swedish tax policy:
Some preliminary thoughts

Indirect taxation: The VAT

- Current VAT system: Reduced VAT rates on certain items, including food
- Policy proposal: Move back to uniform VAT rate; adjust the rate; possibly reserve part of the revenue gain to adjust certain transfers to low-income groups

Indirect taxation: Excises

Issues:

- Do current excise tax rates adequately reflect externalities?
- Are the current green taxes rationally designed?

Some principles of excise tax design:

- Externality-correcting excises should be levied at the same rate on firms and households
- Ramsey-taxes intended to raise revenue should be levied only on final consumption
- Carbon tax rates on the non-quota sector should ideally be aligned with the expected average price of carbon quotas

The labour income tax: The case for abolishing the värnsskat

Define $z \equiv$ average income of taxpayers above the income threshold \bar{z}

Degree of self-finance in case of a cut in marginal labour income tax rate on incomes above \bar{z} (interaction with other tax bases ignored):

$$-\frac{dR^d}{dR^s} = \frac{m^w}{1-m^w} \cdot \varepsilon \cdot \alpha, \quad m^w \equiv \overbrace{t^w + t^c (1-t^w)}^{\text{Total effective marginal tax rate on labour income}}, \quad \varepsilon \equiv \overbrace{\frac{\partial z}{\partial(1-m^w)} \frac{1-m^w}{z}}^{\text{Elasticity of taxable income}}, \quad \alpha \equiv \frac{z}{z-\bar{z}}$$

Example: $m^w = 0.7$, $\varepsilon = 0.2$, $\alpha = 3.5$ (realistic at top of Danish wage distribution)

Then $-\frac{dR^d}{dR^s} \approx 1.6$: A degree of self-finance of 160%!

Implication: Highly likely that värnsskatten places Sweden on the wrong side of the top of the Laffer curve.

The deduction for purchase of household services (hushållstjänster)

- The theory of taxation provides a rationale for a favourable tax treatment of household services
- Could the design of the current tax regime for household services be improved? (deduction only for labour cost distorts the input choices of firms)

The taxation of business income and capital income

Guidelines for reform:

- Relieve double taxation by abolishing the source-based tax on the normal return
- Maintain low flat residence-based tax on the normal return
- Strive towards tax neutrality vis á vis the choice of organizational form
- Streamline the taxation of capital gains and property taxation

Abolishing the source tax on the normal return

- The current corporation tax falls on the normal return as well as on rents
- In a small open economy, it is inoptimal to levy a source-based tax on the normal return

Solution:

- Introduce an Allowance for Corporate Equity (ACE): Allow companies to deduct an imputed normal rate of return on their equity

Calculating the base for ACE

- Equity base in previous year
 - + taxable profits in previous year (gross of the ACE)
 - + exempt dividends received
 - + net new equity issues
 - tax payable on taxable profits in previous year
 - dividends paid
 - net new acquisitions of shares in other companies
 - net new equity provided to foreign branches
- = Equity base for the current year**

Neutrality of the ACE

i = rate of interest = imputed rate of return

δ = rate of depreciation for tax purposes

Present value of total allowances triggered by one unit of investment:

$$\frac{i + \delta}{i + \delta} = 1: \text{ Equivalent to full expensing}$$

Note: the present value of allowances is independent of the rate of depreciation for tax purposes \rightarrow no distortion from accelerated depreciation. Any mismeasurement of profit is offset by a corresponding change in future ACE allowances

Setting the imputed rate of return under the ACE

- Full neutrality requires that the imputed return be equal to the shareholders' discount rate
- With full loss offsets, the tax saving from the ACE is a risk-free cash flow, so the imputed rate of return should then be the risk-free interest rate
- With imperfect loss offsets, rough neutrality could be achieved by setting the imputed return equal to the average corporate bond rate
- Neutrality could be improved by allowing companies to offset tax losses against other taxes (e.g. VAT, pay-as-you-go income tax)

The choice of tax rate and the transition to an ACE

- To avoid exacerbating the transfer-pricing problem, the statutory corporate tax rate should not be raised. The owners of domestic factors will benefit from the ACE even if they have to make up for the revenue loss
- For widely held firms, one might consider setting the initial equity base at zero to limit the revenue loss. This will require anti-avoidance rules to prevent tax-motivated liquidations and new start-ups

Taxing closely held corporations (fåmansföretag)

Ideally, the problem of income shifting in closely held firms could be solved by setting tax rates so as to roughly satisfy

$$\tau + t(1 - \tau) = m$$

τ = corporate income tax rate

t = personal capital income tax rate

m = top marginal labour income tax rate (including social security tax)

This would allow abolition of the 3:12 rules. However, concerns about revenue and income distribution may prevent this solution

Taxing closely held corporations (fåmansföretag)

- Dividends and capital gains up to the level of the ACE allowance should be taxed as capital income
- Retained profits up to the level of the ACE should be taxed as capital gains at the shareholder level; with a corresponding step-up of the basis value of shares
- Dividends and realized capital gains above the ACE should be 'grossed up' and taxed as labour income, with a credit for the underlying corporation tax
- The 'normal returns' from closely held companies should be taxed at the standard capital income tax rate at the shareholder level
- The wage-based allowance should be abolished

Implication: (roughly) identical tax treatment of proprietorships and closely held corporations

The problem with the wage-based allowance for closely held companies

Distortion of input choice: Penalty on capital that substitutes for labour; subsidy to capital which is complementary to labour

	METR on investment financed by		
	New equity	Retained earnings	Debt
No wage-based allowance	-20.9	53.0	30.0
Marginal ratio of employee wage bill to capital stock: 0	9.3	53.0	30.0
Marginal ratio of employee wage bill to capital stock: -0.05	21.3	56.4	37.4
Marginal ratio of employee wage bill to capital stock: +0.05	-7.0	48.9	20.7

Source: Own calculations, based on 2007 tax rules

The taxation of capital gains on shares in widely held corporations

- Shares in **listed** corporations: taxation of gains upon accrual (mark-to-market)

Shares in widely held **unlisted** corporations:

- Step up the basis of shares each year by the minimum of the company's retained profit and its ACE allowance and impose standard capital income tax on the increase in basis value
- If a share is sold at a price exceeding the stepped-up basis value, the additional gain is taxed as capital income at the standard rate
- If a share is sold at a price below the stepped-up basis value, the loss is deductible against other capital income (or entitles the taxpayer to a tax credit against the tax on labour income)

Advantages of capital gains tax regime for unlisted shares

- No valuation problem: capital gains tax liability is based on the company's taxable retained profits
- No liquidity problem: tax is only liable in so far as the company earns positive taxable profits. The company can pay the flat tax on behalf of resident individual shareholders
- Taxation of additional realized gains ensures taxation of gains stemming from higher expected future earnings and loss offset protects against overtaxation

The taxation of savings income

Issues:

- Should savings channeled through insurance companies and mutual funds (investmentbolag och värdepappersfonder) all be taxed according to the same rules (the Risk-Free Return method)
- Should the tax rate applied to the imputed return to these savings be brought closer in line with the standard capital income tax rate?

Taxing returns to property

- Risk-Free Return Method (RFRM): Set taxable capital income equal to an imputed risk-free rate of return on the assessed value of the property
(ex ante neutrality, implies taxation of the value of housing services plus expected rather than actual capital gains → no lock-in effects)

Apply the RFRM to

- owner-occupied housing
- rental property

Assuming that a realistic imputed rate of return is chosen, the current capital gains tax on owner-occupied housing can be abolished

Note: the RFRM can also be applied to shares in foreign unlisted corporations

Taxing imputed returns on owner-occupied housing through the Risk-Free Return Method

Capital market equilibrium in the absence of tax:

$$i = \overbrace{h - \delta + g - p}^{\text{expected risk-adjusted nominal return to housing investment}} \quad (1)$$

Capital market equilibrium with tax on imputed rent:

$$i(1-t) = h - \delta + g - p - t\rho \quad (2)$$

For $\rho = i$ (neutral taxation) it follows from (1) and (2) that

$$t \cdot \rho = t \cdot (h - \delta + g - p) \quad (3)$$

Hence neutral taxation according to the *RFRM* method involves taxation of the expected capital gain g rather than the actual gain

Chapter 4: The deadweight loss from taxation in Sweden

- Marginal deadweight loss from a tax increase = the amount taxpayers would be willing to pay to avoid the extra tax – the net revenue gain
- The amount taxpayers would be willing to pay to avoid the extra tax = static revenue gain
- Net revenue gain = static revenue gain – dynamic revenue loss

Hence:

- Marginal deadweight loss from a tax increase = dynamic revenue loss

Chapter 4: The deadweight loss from taxation in Sweden

- Note: dynamic revenue loss from tax increase = dynamic revenue gain from tax cut. Hence

$$\frac{\text{Marginal deadweight loss from tax increase}}{\text{Static revenue gain from tax increase}}$$

$$= \frac{\text{Dynamic revenue loss from tax increase}}{\text{Static revenue gain from tax increase}}$$

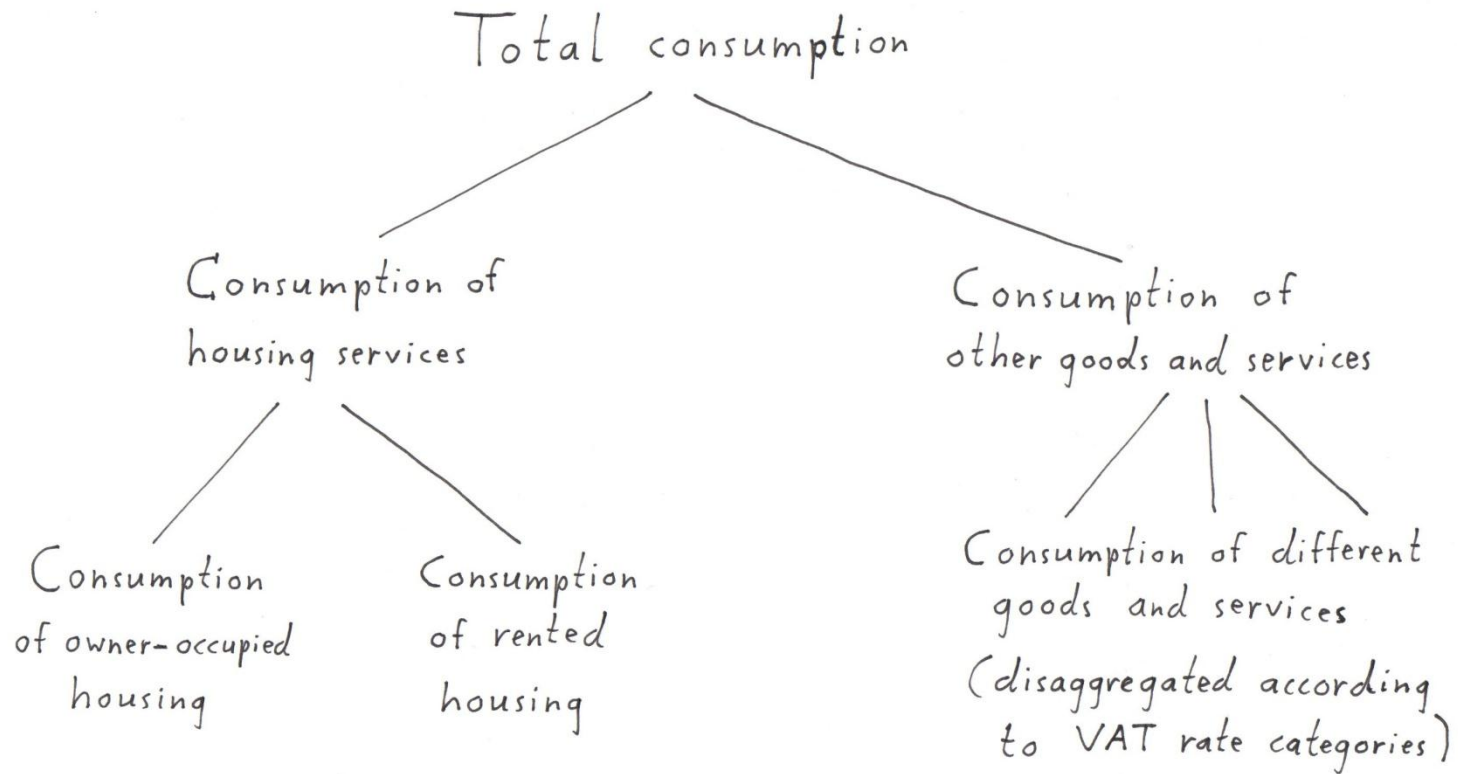
$$= \frac{\text{Dynamic revenue gain from tax cut}}{\text{Static revenue loss from tax cut}}$$

$$= \text{Degree of self-financing (DSF)}$$

Estimating the DWL from non-uniform consumption taxation

- **Scenario 1:** Calculate the extra consumption tax revenue that could be gained without reducing consumer welfare by switching to a uniform VAT
- **Scenario 2:** Calculate the extra tax revenue that could be gained without reducing consumer welfare by switching to uniform taxation of housing consumption and other consumption
- **Scenario 3:** Calculate the extra tax revenue that could be gained without reducing consumer welfare by switching to uniform taxation of rental housing and owner-occupied housing
- **Alternative assumptions:** 1) Excises correct perfectly for externalities and may hence be ignored. 2) Excises are distortionary and are thus included in the effective tax rates on the various types of consumption

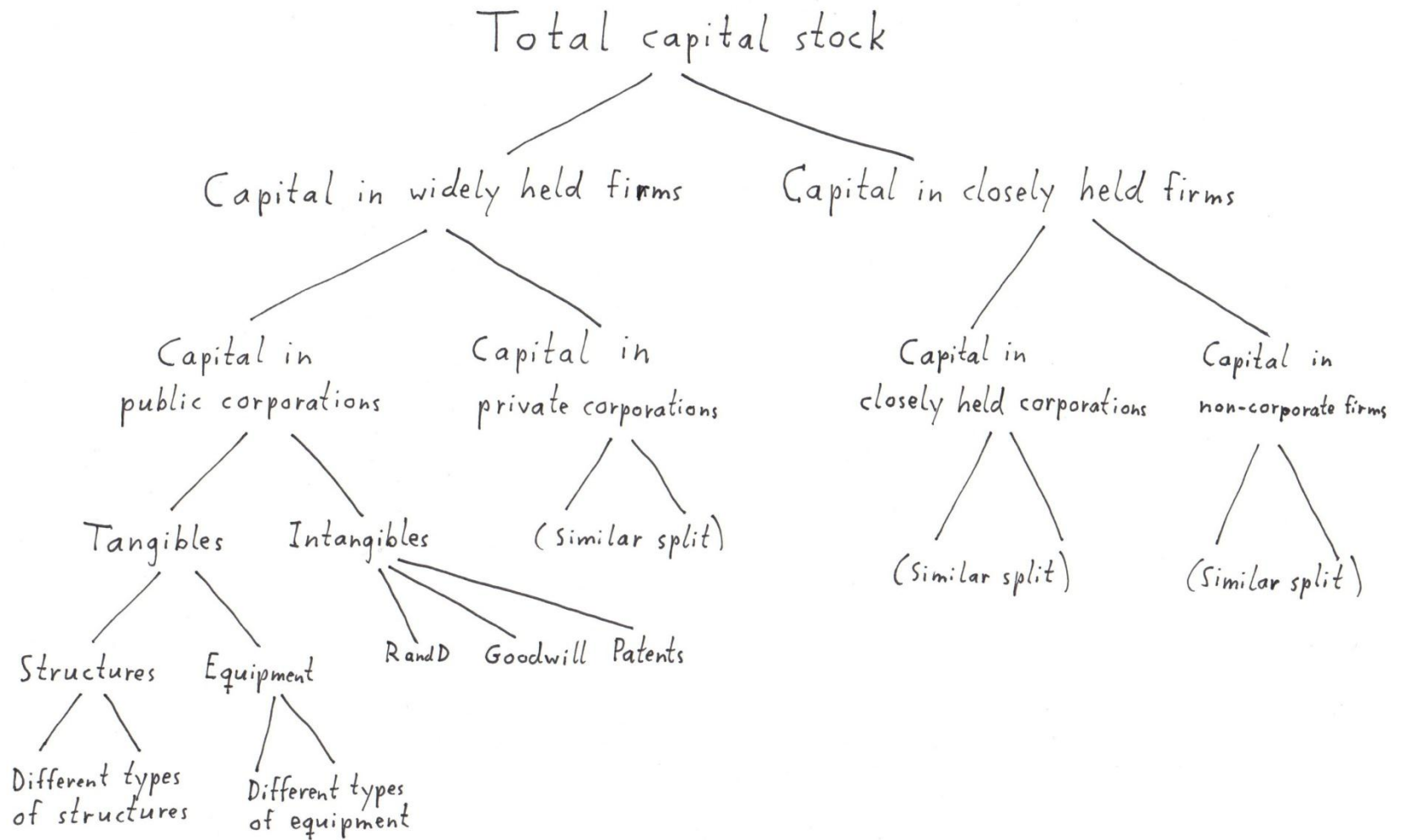
Disaggregating consumption



Estimating the DWL from non-uniform capital income taxation

- Idea: Calculate the uniform METR that would imply the same aggregate cost of capital (and hence the same average METR) as under the present tax system
- Calculate the substitution effects and the resulting increase in revenue from a move towards uniform taxation. This increase in revenue is a measure of the efficiency gain from the move towards uniformity
- Tax data needed: Estimates of METRs on different types of investment (based on methodology developed in Sørensen (2008))

Disaggregating the capital stock



Estimating the DWL from tax distortions to financial choices

- Idea: Firms trade off the tax benefits of debt finance and finance via retained profits against the non-tax costs of deviating from the 'target' debt-equity ratio
- Empirical estimates of the elasticity of the debt ratio to the corporate tax rate can be used to quantify the efficiency loss from non-neutral tax treatment of debt and equity

Estimating the DWL from tax distortions to portfolio choice

- The goal is to estimate the efficiency loss from non-neutral tax treatment of savings via tax-favoured institutional investors and ordinary financial saving via non-favoured savings vehicles
- For this purpose a simple model of portfolio choice is set up to calculate the revenue gain from a move to uniform taxation, given that total after-tax portfolio income (and hence consumer welfare) is kept unchanged
- Tax data needed for calculation: Effective marginal tax rates on institutional saving and non-favoured saving