



THE IMPACT OF SECONDARY TAX

Introduction

A company's cost of capital determines not only the viability of capital investments, but also the value of the company's shares. Any factor that has a significant effect on the cost of capital needs to be considered carefully, as it will affect shareholder value. The secondary tax on companies, which was introduced during 1993, is such a factor.

Recent announcements during the 2007 budget speech again focused the attention on STC (South African Revenue Service, 2007:1). The objective of this study is to investigate what impact the introduction of STC and the lowering of the normal company tax rate had on the cost of capital as well as the influence of the changes in STC and the normal tax rate since 1993 on the cost of capital. It starts off with a discussion on the basic theory regarding the cost of capital and then presents the different views used to interpret it. Thereafter, the impact of the introduction of STC, as well as each change in either the STC rate or the normal tax rate, are analysed before certain conclusions are made.

Basic theory underpinning cost of capital

The cost of capital is a vital ingredient in just about all strategic financial decision-making. Typically, these decisions include:

- evaluating capital investments;
- determining optimal capital structures;
- valuations of company shares; and
- determining the economic value added (EVA) of a company.

It therefore stands to reason that sound economic principles and dependable forecasting need to be combined with accurate calculations in order to estimate a company's cost of capital as reliably as possible. For consistent decision-making, unbiased by the specific form of finance used, a pooling-of-funds approach is suggested, whereby a weighted average cost of capital is determined. The WACC is calculated after the component cost of each source of long-term finance (normally equity, preference shares and long-term debt) is determined and appropriately weighted according to the desired target cost structure.

Where a given balance sheet is considered to represent the target capital structure, it is preferable to use market values, rather than

The intention of the introduction of a secondary tax on companies (STC) and the lowering of the normal income tax rate in 1993 was to encourage companies to re-invest profits to make use of capital investment opportunities. The 2007 budget again raised questions about how the proposed changes in STC would impact the value of companies. This study investigates the effect of these tax changes and all subsequent changes since 1993 on the cost of capital. It was found that there was indeed a decrease in the dividend payout ratios since 1993, but that these tax changes actually caused the weighted average cost of capital (WACC) of companies to go up. Increased cost of capital results in shareholder value destruction and therefore the merits of STC, or a similar tax, need to be reconsidered.

book values, to determine the weights (Correia, Flynn, Uliana and Wormald 2007:7-14). According to Gitman (2006:511) and Hawawini and Viallet (1999:320) the weighted average cost of capital can be calculated by using the following formula:

$$WACC = w_e \times K_e + w_p \times K_p + w_d \times K_d$$

where

WACC	=	weighted average cost of capital
w_e	=	weight of equity
w_p	=	weight of preference shares
w_d	=	weight of debt
K_e	=	cost of equity
K_p	=	cost of preference shares
K_d	=	cost of debt

In order to address the impact of the introduction of STC and subsequent changes to the STC rate and the normal tax rate, careful consideration needs to be given to the effect of STC on each component cost of capital, and ultimately, on the WACC. At this point, it may be appropriate to reflect on the concept of cost of capital and the different views on how it could be determined.

Different views regarding cost of capital

The following description of cost of capital is given in CIMA (2005:178): "The cost of capital is the minimum return that a company should make on its own investments, to earn money out of which investors can be paid their return". This perspective may be in order to determine the cost of debt and of preference shares, but it would not be acceptable for equity, as shareholders derive their returns from both dividend payouts and increases in the share price (capital growth).

Two approaches (views) on how to determine the cost of capital are identified in CIMA (2005:178). According to the first approach, which can also be described as a direct approach or bottom up approach, the cost of capital is the after-tax cost the company pays for using a certain source of long-term capital. This approach is appropriate for both debt, where the component cost is the current after-tax

interest rate, and for preference shares, where the component cost is the current rate on similar preference shares. The cost of preference shares is also equal to the effective cost percentage the company is paying, based on the current market price of the preference shares.

It is not possible to assign a direct cost to ordinary shares, as the company has no obligation to pay any dividends to investors. Furthermore, capital growth, constituted by increases in the share price, is not paid out by the company. There may be some correlation between the percentage of profits retained in the company and future share price growth, but there may not necessarily be a good relationship. For instance, re-investing retained profits in projects with returns lower than the WACC will destroy value and therefore may cause a decline in the share price. Clearly, a different approach is required to handle the determination of the cost of equity.

The second approach views the cost of capital (specifically the cost of equity) as an opportunity cost. The cost of capital is then the minimum return required by investors to invest in a company of similar risk/return characteristics as the company under review (CIMA, 2005:178). This opportunity cost approach is therefore especially suitable to determine the cost of equity.

There are two well-known models to determine the cost of equity - the dividend growth model and the capital asset pricing model. The so-called Gordon dividend growth model uses a simple valuation model based on future dividends and the current share price to estimate the cost of equity (Ross, Westerfield & Jordan, 1993:490).

$$k_e = D_1 / P_0 + g$$

where

D_1	=	dividend expected for coming year
P_0	=	current ex-dividend price per ordinary share
g	=	expected constant future growth rate in dividends

The requirement of a constant past or future dividend growth is rarely met in practice, and it has already been pointed out that dividends alone do not fully represent the cost of equity capital. For the purposes of this article, these weaknesses rule out the dividend growth model as a reliable determinant of the cost of equity. ■

It is interesting to note that it was initially expected that the introduction of STC would lower a company's cost of capital (Davidson, 1996:11).

The capital asset pricing model (Brigham & Daves, 2007:323) is a much better representation of the opportunity cost approach, as it calculates the required rate to compensate the shareholder for the systematic (non-diversifiable) risk of the company. This is also the approach most widely used in practice and preferred by McGregor BFA to determine the cost of equity for listed companies. The cost of equity is determined as follows:

$$k_e = R_f + (R_m - R_f) \quad \text{note: } (R_m - R_f) \text{ is also called market premium, or } R_p \text{ where}$$

$$R_f = \text{risk-free rate, e.g. yield on government bond}$$

$$= \text{beta-factor of share}$$

$$R_m = \text{average market return, e.g. on All Share Index}$$

Based on the following assumptions, a hypothetical WACC can be determined before introducing the possible effects of STC. Assume the target weights are equity 60%, preference shares 10% and long-term debt 30%. With a tax rate of 48% before STC was introduced and a before-tax cost of debt of 10%, the after-tax cost of debt would be 5,2%. Further assumptions are a current preference share rate of 12%, a risk-free rate of 8%, a beta of 1,0 and a market premium of 6%. All weights and components of cost of capital are selected to be representative, on average, of listed South African companies and the JSE Securities Exchange over the past number of years.

$$k_e = 8\% + 1,0(6\%)$$

$$= 14\%$$

$$\text{WACC} = 0,6(14\%) + 0,1(12\%) + 0,3(5,2\%)$$

$$= 11,16\%$$

In the following sections, the possible effects of the introduction of STC and subsequent changes to the STC rate and the normal tax rate are investigated.

Introduction of STC in March 1993

During the 1993 budget, the then Minister of Finance, Derek Keys, announced a drop in the normal company income tax rate from 48% to 40% and introduced a secondary tax on companies (STC) of 15% on net dividends paid. According to Davidson (1996:12) "the stated objective was to encourage companies to exploit investment opportunities". This move embodied a disincentive to pay out dividends and it effectively left the company with the prerogative to decide what the effective combined tax paid would be and also what amount, if any, would be made available to ordinary shareholders by way of a dividend.

It is interesting to note that it was initially expected that the introduction of STC would lower a company's cost of capital (Davidson, 1996:11). The reasoning behind this argument is open to speculation. The lower expected dividend payouts could have been

interpreted (wrongly, in the opinion of the authors) as a possible cause for a lower cost of capital, or perhaps the expected greater re-investment of profits could have resulted in savings in issuing costs and thereby lower the cost of capital. The expectation of a decrease in the cost of capital after the introduction of STC will be tested by making the appropriate tax adjustments to recalculate the WACC for the hypothetical company.

Two important issues need to be highlighted at this juncture. Firstly, the introduction of STC cannot be evaluated in isolation. The combined effect of STC, along with the change in the normal income tax rate would have to be factored in simultaneously before conclusions can be drawn. Secondly, the issue of changing dividend payments brought about by the STC and its implications for signalling theory and the value of the company's shares is well worth pursuing, but it falls outside the intent and scope of this article.

The impact of the introduction of STC of 15% and the lowering of the normal income tax rate from 48% to 40% on the cost of capital of the hypothetical company will now be considered. The after-tax cost of debt will now be $10\% \times (1 - 0,40) = 6\%$. The cost of preference shares will now have to include STC of 15% and, assuming the net preference dividend is kept at 12%, the total cost becomes $12\% \times 1,15 = 13,8\%$. Taking an opportunity cost view of the cost of equity, the required return of shareholders would remain unchanged. This is so because the investor's perceived risk of the company is unaffected by the nature of the tax paid. Therefore, the cost of equity, determined according to the capital asset pricing model, will remain the same. The WACC of the hypothetical company can now be determined as follows:

$$\text{WACC} = 0,6(14\%) + 0,1(13,8\%) + 0,3(6\%)$$

$$= 11,58\%$$

When this result is analysed, it transpires that the WACC actually went up because of the smaller tax relief on the interest payments and the added STC on the preference dividends. The payout ratio did not affect the WACC at all, i.e. the WACC would have been the same if the payout ratio was 100% or zero.

Increase of STC to 25% and reduction in normal tax to 35% in June 1994

Following the same reasoning as in the previous section, the impact of these changes can now be incorporated in the WACC calculation. The after-tax cost of debt becomes $10\% \times (1 - 0,35) = 6,5\%$ and the cost of preference shares becomes $12\% \times 1,25 = 15\%$.

$$\text{WACC} = 0,6(14\%) + 0,1(15\%) + 0,3(6,5\%)$$

$$= 11,85\%$$

These tax changes again resulted in the WACC actually increasing due to the same reasons mentioned in the previous section.

Decrease of STC to 12,5% in March 1996 and normal tax kept at 35%

This change would only affect the cost of preference shares (now 12% x 1,125 = 13,5%) and the WACC can be calculated as follows:

$$\begin{aligned} \text{WACC} &= 0,6(14\%) + 0,1(13,5\%) + 0,3(6,5\%) \\ &= 11,70\% \end{aligned}$$

This time there is a slight reduction in the WACC by virtue of the effect of the decrease in STC on the cost of preference shares.

Decrease in normal tax to 30% in March 2000 and STC kept at 12,5%

In this scenario, only the after-tax cost of debt would change to 10% x (1 - 0,3) = 7% and

$$\begin{aligned} \text{WACC} &= 0,6(14\%) + 0,1(13,5\%) + 0,3(7\%) \\ &= 11,85\% \end{aligned}$$

The slight increase in the WACC is attributable to the reduced tax benefit on the interest expense.

Decrease in normal tax to 29% in March 2006 and STC kept at 12,5%

Again, only the after-tax cost of debt would change to 10% x (1 - 0,29) = 7,1% and

$$\begin{aligned} \text{WACC} &= 0,6(14\%) + 0,1(13,5\%) + 0,3(7,1\%) \\ &= 11,88\% \end{aligned}$$

There is an almost negligible increase in the WACC, which is attributable to the reduced tax benefit on the interest expense.

Decrease of STC to 10% in March 2007 and normal tax kept at 29%

Along with the proposed change in STC rate, it was announced that STC would be replaced by a dividend tax at shareholder level in 2008 (Needham, 2007:1). It was clearly stated that all distributions, including dividends on preference shares, would be liable for this withholding tax, which is to be administered by the company, but borne by the recipient. It is argued that companies with preference shares would come under pressure to increase the preference dividend because the preference shareholders will have to pay the 10% tax and not the company.

For the time being, the effect of STC changing to 10% would cause the cost of preference shares to change to 12% x 1,1 = 13,2%, and this could be incorporated in the WACC calculation as follows:

$$\begin{aligned} \text{WACC} &= 0,6(14\%) + 0,1(13,2\%) + 0,3(7,1\%) \\ &= 11,85\% \end{aligned}$$

The marginal decrease in the WACC is obviously linked to the lower STC rate and its effect on the cost of preference shares. ✉

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In the future (2008) scenario where there will be no STC payable by the company, but where the shareholders will bear the dividend tax burden, the STC adjustment to the cost of preference shares will fall away. Some companies may increase their dividends on preference shares to compensate for the tax that would then be payable by the recipients of the dividends. Ordinary shareholders, who will then receive a smaller net dividend, may expect higher capital growth in turn. This is a reasonable expectation if it is taken into account that the company will then have the benefit of paying no STC. Under these conditions, no adjustment to the cost of equity will be required. The WACC would then be as follows:

$$\begin{aligned} \text{WACC} &= 0,6(14\%) + 0,1(12\%) + 0,3(7,1\%) \\ &= 11,73\% \end{aligned}$$

The small decrease in the WACC would be caused by the elimination of the effect of STC on the cost of preference shares. Table 1 contains a summary of the changes in STC and normal tax and its impact on the cost of capital.

Conclusion

The stated intention of the introduction of STC of 15% and the lowering of the normal tax rate from 48% to 40% was to encourage re-investment to exploit investment opportunities. The initial

expectation was that these measures would not only decrease dividend payouts but also decrease the cost of capital.

Davidson (1996:22) found no significant change in the dividend payout ratios of the top 30 listed South African companies from 1991 to 1993 after the introduction of STC, and he concluded that STC failed as an incentive to retain earnings for investment. An up-to-date analysis of payout ratios of listed SA companies indicates a steady decline from a median of 40% in 1993 to a median of 26% in 2006, vindicating STC to a certain extent. However, instead of lowering the cost of capital of companies in South Africa, it appears as if these tax measures actually increased the WACCs, all other things being equal, by more than 0,5%. As typical free cash flow valuations have WACC in the denominator, and considering the number of companies affected, the destruction of shareholder wealth is considerable. Needless to say, there is no stronger disincentive for increased capital investment than value destruction.

The most important insight coming to the fore in this study is that if an opportunity cost approach is followed, the cost of equity is unaffected by both the STC and the dividend payout ratio. The cost of preference shares is actually increased by the STC, even if its impact is limited because of the low average weight and use of preference shares in capital structures. The after-tax cost of debt is negatively

Table 1: Summary of results

Period	Normal tax %	STC %	k_c	K_p	K_d	WACC
Before March '93	48,0%	none	14,0%	12,0%	5,2%	11,16%
From March '93	40,0%	15,0%	14,0%	13,8%	6,0%	11,58%
From June '94	35,0%	25,0%	14,0%	15,0%	6,5%	11,85%
From March '96	35,0%	12,5%	14,0%	13,5%	6,5%	11,70%
From March '00	30,0%	12,5%	14,0%	13,5%	7,0%	11,85%
From March '06	29,0%	12,5%	14,0%	13,5%	7,1%	11,88%
From March '07*	29,0%	10,0%	14,0%	13,2%	7,1%	11,85%
From '08**	29,0%	none	14,0%	12,0%	7,1%	11,73%

*Implemented from 1 October 2007.

**Proposed.

impacted by decreases in the normal tax rate. The lower the tax rate, the smaller the tax benefit, the higher the net after-tax cost.

Based on these findings, government's rethink of STC and even its surrogate, the tax on dividends, is justified as a matter of expediency.

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[%20ExplanatoryNote:STCReforms](#)

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from the pen...

Ethical utilitarianism

Professor Martin Prozesky's article on page 24 this month sparks a rather interesting debate. He presents the ethical theory of utilitarianism as it pertains to, or rather, as it could pertain to an ethical dilemma some may face within the profession. Now without wanting to dispute Prof Prozesky's challenge to us at the end of the article, I do want to ask the question 'why is it important for us to include issues around compassion and mercy for what must ostensibly be a sacrosanct code of professional conduct and rules governing the profession?'

Should, for instance, the justice system take into account the fact that a woman who mercilessly killed her domestic worker, who also happens to be the breadwinner of a family of five, was for beating the woman's daughter with a sjambok? Perhaps an over-exaggerated example, but nonetheless a possible scenario.

If J Arthur Brown had decided, before the outcome of the hearings, to confess and plead for forgiveness due to a temporary lack of good judgment, and articulated his willingness to locate the 'lost' money and make all necessary reparations, should the courts show compassion and mercy?

If Hitler resurfaced today and pleaded some kind of insanity, would we be obliged to show mercy in that case too? Perhaps it is just a matter of degree.

Utilitarianism, some argue, is a case for rehabilitation. Boohoo to that! Utilitarianism is surely an over simplistic view that we should always do what will bring about the greatest happiness for the greatest number of people. This takes responsibility away from the individual to comply with any set rules and guidelines, and effectively says that human nature is such that all misgivings are almost always negotiable.

Isn't the purpose of a code of professional conduct meant to rule out the ambiguity of what's right and wrong, what're punishable wrongs and what're acceptable wrongs?

One could assume that, by virtue of non-compliance with standard profession-specific rules, this in itself is not good for the greater number of people. Does ethical utilitarianism really have a place in this profession?

Raina

Editor

this month's contributors...



Professor Johannes de Wet and Anke Das write on the effects the changes in the normal company tax rate and STC have on the cost of capital, which in turn affect the value of a company's shares.



Johann Strauss writes on unclaimed benefits in retirement funds and says the accounting framework for retirement funds is specifically topical now as the due date for retirement fund financials for underwritten funds was 31 August 2007. Unclaimed benefits treatment for underwritten funds specifically is of interest as its definition and treatment is as diverse as there are administrators and boards of trustees.



Professor Harvey Wainer's article deals with the practical implementation of the tricky IFRS 2 and IFRIC 11, including the common scenario where shares are allocated from the share incentive trust. The article clarifies the appropriate accounting in different situations and applies to virtually every listed company.



Jennifer Roeveland and Craig West write on the new withholding tax and says that persons buying South African immovable property from non-residents, under certain conditions, must pay to SARS set withholding taxes on behalf of such sellers. Advisors to such transactions should be aware that immovable property also includes certain share holdings. Furthermore the structure and timing of such transactions could have adverse cash flow effects.

