



The return of dividends

An empirical study shows that investors could benefit from paying more attention to dividend policies of companies when making long-term investment decisions.

by Kagisho Mahura and Johan Smith

When assessing shares, investors often focus on the expected appreciation of the share price and not so much on the contribution of dividends to the attractiveness of an equity as an investment. Do they overlook a significant contributor, or not?

This question is not easily answered in

the literature. While much research has been done on the impact of dividends on share-price movement, the long-term contribution of dividends to total return has been largely ignored.

Research conducted at the University of Stellenbosch Business School (USB) set out to determine the respective contributions of dividends alongside capital appreciation

to the total returns of South African equities over a ten-year period. The aim was to discover whether investors should analyse dividend policies as carefully as the potential of capital appreciation when constructing investment portfolios.

The study, which targeted the Top 40 Index of shares over the period 1996 to 2006, found that dividends contributed more than 50% of the total returns for at least 10% of these shares. For a third of these shares, dividends still yielded more than 25% of total returns.

Investment philosophies

Modern Portfolio Theory (MPT), introduced by Nobel Prize winner Harry Markowitz, argues that investors are rational wealth maximisers who will aim to construct portfolios that offer the highest expected return for the degree of risk they take.

Although this theory makes sense in a perfect, rational world, investment-market history and research into behavioural finance has shown that investment decisions are not so straightforward. The unpredictability of human nature allows psychological, emotional and other factors to influence investment decisions in practice.

Are viewpoints on dividends not equally debatable? At present, the pursuit of capital appreciation dominates long-term investment decisions to the extent that dividends are largely ignored. This disregard of dividends is also evident in the construction of indices, with the FTSE/JSE All Share Index being a case in point. Many writers consider dividends irrelevant to the value of the company, a view that has given rise to the *dividend irrelevance theory*.

Such theories may be plausible, but they often fail to solve the practical investment decisions where taxes, investment horizons and more specific investment objectives come into the picture. For example, in South Africa dividends are now tax-free in the hands of the investor, while capital gains are taxed. This certainly has changed the rules about what to do with surplus profits in a company. To view another situation, retiring persons, seeking to maximise their annual income, may consider steady dividend payouts as very relevant to their investment decisions.

Behavioural finance thinking is seen by some as the most important contribution to understanding how investors make decisions. This refers to the psychological influences and factors that help to explain seemingly irrational decisions. Notwithstanding all the theories on optimal portfolios, efficient markets and risk versus return, many

Capital Asset Pricing Model

The Capital Asset Pricing Model (CAPM) is often used to determine the appropriate required return for a security based on the relative risk of that security. The model accepts that the security forms part of a diversified portfolio.

The CAPM is applied via the following formula:

$$R_e = R_f + \beta(R_m - R_f)$$

- R_e is the expected (or required) return for the security
- R_f is the risk-free rate in a market (usually the yield on long-term bonds)
- β is the Beta-value of the security (i.e. its measure of volatility, or systematic risk, in comparison to the market as a whole)
- R_m is the expected return of the market.

investors react impulsively to sensational journalism about the price movement of a particular equity. The psychological effect is that investors are conditioned to focus primarily on the appreciation or depreciation of the share price, while they ignore the fundamentals of the company and the past as well as potential future dividends on their investment.

Data on dividends

The research targeted the FTSE/JSE Top 40 Index over a period of 10 years from 1996 to 2006. The Top 40 Index comprises the largest market capitalisation and represents companies from diverse sectors. It has also been the index with the most consistent set of constituents over the 10-year period. Equities that had not been part of the index for the full period were excluded. A total of 30 companies met the criteria and were analysed.

To simplify the calculations, all interim, special and final dividends were summed and treated as a single annual dividend. The payment date was used to account for when the dividends were received. Share premium capital distributions were also treated as if they were dividends.

Other principles followed to ensure a consistent analysis procedure were the

following:

- Dividends received were reinvested on the investor's behalf at the required rate of return for that particular equity. That was to ensure that dividends were fairly treated as part of the total return at the end of the analysis period.
- The Capital Asset Pricing Model was used to calculate the required return used to 'reinvest' dividends.

Dividends are substantially part of the total expected return in a large number of companies

- A constant β (Beta value) was assumed for each equity throughout the assessment period. This assumption can be justified as the study analysed only companies that maintained their inclusion in the index over the period.

Data were collected as shown in the **table below**.

Dividends deserve attention

For the assessment period, the analysed equities produced an average annual

return of close to 17%. This figure is not a weighted average, however, which will take total capitalisation of each equity into account. It is simply an arithmetical average of all the returns calculated. Returns varied widely, between 42% per year (Aspen Pharmacare) and 1% per year (Liberty Group).

The analysis of dividends as part of the total return revealed that:

- in the case of 3 of the equities (10%), dividends contributed more than 50% of the respective total returns; and
- for a further 7 equities (23%), dividends contributed more than 25% of the respective total returns.

The results show that capital appreciation has, on average, contributed far more than dividends to total returns. But they also demonstrate that dividends are substantially part of the total expected return in a large number of companies. Although their impact is not as significant as that of capital appreciation, this suggests that dividend policies should be considered carefully in portfolio designs.

The way the calculations were carried out may even have underestimated the contribution of dividends, specifically the assumed reinvestment of dividends. In the application of the CAPM model, the expected returns during the early years of the assessment period should have been higher, based on market conditions in those years. More research on the impact of dividends is needed, especially through the refinement of calculations such as calculating an expected return for each year of the period.

Data	Source
Closing share prices at 31 July 1996 and 31 July 2006	Reuters on-line
The full history of dividend payouts over the period	Reuters on-line
The Beta (β) of each equity	Reuters on-line
Bond rates over the period	The Bond Exchange of South Africa website
Currency exchange rates for converting dividends stated in foreign currencies	South African Reserve Bank website



This study was conducted by Kagisho Mahura (kagisho@absamail.com) as an MBA research project supervised by Dr Johan Smith. The research report, *Dividends as a contributor to the total returns of South African equities over the long term*, was presented to the USB in April 2007.