

The Investment Analysts Journal

Number 10 August 1977

Die Beleggings- Navorsers Tydskrif

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The history of 'securities rand' and the effects the securities rand differential has had on overseas investment in South Africa

Although overseas interest in South African portfolio investment has declined in recent years, it remains an important factor in the determination of share prices on the JSE. The fact that South African security prices are quoted abroad, makes it possible to assess the extent to which investment values here are being influenced by factors peculiar to local economic and political developments whatever its more pragmatic link with the movement of funds. There are few people more qualified to discuss the subject of the securities rand discount than Chris Freemantle, president of the Exchange, for he brings to his subject not only an intimate knowledge of our stock market but many years' experience of arbitrage between Johannesburg and other centres.

The limited efficiency of The Johannesburg Stock Exchange

In the last issue of the IAJ we published an article putting the case for the acceptance of The Johannesburg Stock Exchange as an efficient market. Because market efficiency has many implications, not all of them positive for or complimentary to the twin professions of investment analysis and portfolio management, it was inevitable, as reference to our letter section will testify, that this should give rise to controversy. In this issue we publish an article by Dr Paul Strebel, former senior lecturer in finance at the Wits Business School, now returned to a lecturing post in the United States, on the case for regarding the claims of the efficient marketeers with caution. In Dr Strebel's view, the efficient market hypothesis (EMH) is of the nature of a half-truth, at least as far as the JSE is concerned, as research undertaken at Wits suggests that it applies to only a section of all listed securities.

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Portfolio selection: a non-technical overview

The publication of Harry Markowitz's famous article on portfolio selection in 1952 was a major development in the history of that branch of economic thought concerned with the theory of investment. Markowitz's contribution, however, was too complex and too mathematical for the general body of portfolio managers and investment analysts in the U.S. and elsewhere so that even its simplification and presentation in book form seven years later failed to make a really significant impact on investment practice. It was not until William Sharpe further simplified Markowitz's basic theory during the 1960's and published his (Sharpe's) book on portfolio theory and capital markets in 1970, that the situation really began to change, first in the universities and later in Wall Street itself. Today it is no longer considered avant-garde to talk of betas and portfolio efficiency. Dr Kerbel's article is concerned with putting the essentials of portfolio selection to South African readers without indulging in mathematical extravagance.

Die praktyk van die kritiese rentabiliteit

The choice of an appropriate 'cost of capital' for the appraisal of investment projects is a difficult matter of judgement in capital budgeting and one that has been the subject of previous contributions to this journal. As Dr Lambrechts points out in his article in the present issue, that 'cost' is to be viewed as an imputed cost or a standard to be achieved, for which he employs the descriptive term 'kritiese rentabiliteit'. He goes on to survey actual business practice in the setting of such a minimum rate and finds that a variety of computed and even purely intuitive measures is in use.

The reverse yield gap and real return

This is the first article to appear in a new section of the journal designed to give attention to the basic concepts and practices of security investment. In the article, Richard Jesse gives attention to the reverse yield gap and explains the connection between it and such factors as risk, growth and inflation.

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Die Beleggingsnavorsers Tydskrif

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The inclusion in the last issue of The Investment Analysts Journal of an article on the efficient market hypothesis has sparked off a fair degree of controversy. This is understandable. Important issues are at stake. Taken at face value the hypothesis implies that neither technical nor fundamental analysis live up to the claims of their practitioners when subjected to critical scrutiny and this threatens the very ground on which most professional portfolio management rests.

That things are no longer what they used to be was made very clear by the doyen of security analysis, Benjamin Graham, in an interview recorded last year in the U.S. Financial Analysts Journal.* Asked whether he advised careful study and selectivity amongst individual issues in selecting a portfolio of ordinary shares Graham replied:

'In general, no. I am no longer an advocate of elaborate techniques of security analysis in order to find superior value opportunities. This was a rewarding activity, say, 40 years ago, when our textbook "Graham and Dodd" was first published; but the situation has changed a good deal since then. In the old days any well-trained security analyst could do a good professional job of selecting undervalued issues through detailed studies; but in the light of the enormous amount of research now being carried on, I doubt whether in most cases such extensive efforts will generate sufficiently superior selections to justify their cost. To that very limited extent I'm on the side of the "efficient market" school of thought now generally accepted by the professors.' Coming from a man who earned fame as an advocate of fundamental analysis, this is a surprising confession as is the opinion we quote below from the same discussion of Graham's view of Wall Street as a financial institution.

'The Stock Exchanges appear to me chiefly as a John Bunyan type of Vanity Fair, or a Falstaffian joke, that frequently degenerates into a madhouse — "a tale full of sound and fury, signifying nothing". The stock market resembles a huge laundry in which institutions take in large blocks of each other's washing — nowadays to the tune of 30 million shares a day — without true rhyme or reason.'

If this is a conclusion one comes to after a period of 60 years of informed study, something might be thought to be amiss. Are stock markets institutions which really contribute to the smooth functioning of our economy? Or do they rather resemble private clubs which exist primarily for the benefit of their members and those who, like gamblers at a casino, enjoy taking risks which really have no social significance? Do they contribute to the better allocation of scarce resources, real as well as financial? Or are they promoters of wasteful effort and confusion?

*September/October 1976

Tiende uitgawe

Augustus 1977

Die insluiting in die vorige uitgawe van Die Beleggingsnavorsers Tydskrif van 'n artikel oor die doeltreffende-beurshipotese het heelwat polemieke ontteken. Dit is verstaanbaar. Belangrike aangeleenthede is op die spel. As die hipotese woordeliks beskou word, gee dit te kenne dat nóg tegniese nóg fundamentele ontleding die aansprake van die beoefenaars daarvan gestand doen wanneer dit aan kritiese betragting onderwerp word, en dit hou 'n bedreiging in vir die grondslag self waarop die meerderheid van professionele portefeulje-bestuur berus.

Die doyen van effekteontleding, Benjamin Graham, het in 'n onderhoud wat verlede jaar in die U.S. Financial Analysts' Journal* opgeneem is, dit baie duidelik gestel dat dinge heelwat verander het. Op die vraag of hy sorgvuldige studie en selektiwiteit met betrekking tot individuele uitgiftes by die keuse van 'n portefeulje van gewone aandele aanbeveel, was Graham se antwoord: 'Oor die algemeen, nee. Ek is nie meer 'n voorstander van uitvoerige effekteontledingstegnieke ten einde beter waardegeleenthede te vind nie. Omtrent 40 jaar gelede, toe ons handboek "Graham and Dodd" die eerste keer verskyn het, was dit 'n lonende bedrywigheid; maar sedertdien het die situasie aansienlik verander. In die ou dae kon enige goed opgeleide effekteontleder hom deur middel van gedetailleerde studies op professionele wyse kwyt van die selektering van onderskatte uitgiftes; maar in die lig van die geweldige hoeveelheid navorsing wat nou onderneem word, betwyfel ek dit in die meeste gevalle of dié uitvoerige pogings seleksies tot gevolg sal hê wat van soveel meer waarde is dat dit hulle koste regverdig. In dié baie beperkte mate skaar ek my aan die kant van die "doeltreffendebeurs"-denkkriging wat nou algemeen deur professore aanvaar word.'

Dit is 'n verrassende belydenis vir 'n man wat roem verwerf het as 'n voorstander van fundamentele ontleding — so ook die opinie wat ons hieronder uit dieselfde bespreking van Graham se beskouing van Wall Street as finansiële instelling aanhaal:

'Die Effektebeurse lyk vir my grotendeels na 'n John Bunyan-tipe "Vanity Fair", of 'n Falstaffse grap, wat dikwels tot 'n gekkehuis verval: "a tale full of sound and fury, signifying nothing". Die effektebeurs lyk op 'n groot wassery waar instellings groot blokke van mekaar se wasgoed inneem — deesdae niks minder as 30 miljoen aandele per dag nie — sonder werklike slot of sin.'

As dié die slotsom is wat iemand na 'n tydperk van 60 jaar se ingeligte studie bereik, is dit denkbaar dat daar iewers iets skort. Is effektebeurse instellings wat werklik bydra tot die gladde werking van ons ekonomie? Of kom hulle eerder ooreen met privaatklubs wat hoofsaaklik bestaan tot voordeel van hulle lede en diegene wat, soos dobbelaars by 'n casino, dit geniet om risiko's

*September/Oktobor 1976

These are questions which need to be faced and for which we hope to provide some answers in opening our columns to the discussion of stock market efficiency. Our interest in the matter is not solely concerned with esoteric controversy.

te loop wat in werklikheid van geen sosiale belang is nie? Dra hulle by tot die beter toekenning van skaars bestaansmiddele, reël sowel as finansiël? Of is hulle bevordersaars van verkwiste inspanning en verwarring? Dit is vrae dié wat ons in die oë moet staar en waarop ons hoop om 'n paar antwoorde te bied deur ons blad oop te stel vir die bespreking van effektebeursdoeltreffendheid. Ons belang by die aangeleentheid gaan nie uitsluitend om esoteriese twisgeskryf nie.

THE EDITOR

DIE REDAKTEUR

Letter to the editor

Dear Sir

re: Paper by Gilbertson and Roux on JSE as an efficient market

I enjoyed reading this esoteric article in Issue No. 9 of The Investment Analysts Journal, not least because it introduced me to several new words — 'submartingale' (ode to a Submartingale?), 'tilde', 'leptokurtic' — I had not previously come across.

But come, come, gentlemen! Were your intentions and conclusions entirely serious? Can you really believe that 'the market prices of securities at any time 'fully reflect' all available information', that 'the whole field of technical analysis (is) of no value to investors', and that 'fundamental analysis . . . also cannot be expected to allow superior investment performance'? In these days of rising unemployment such views might be regarded in certain circles as downright antisocial.

The following points occur to me:

1. Market prices might always reflect all information available to the **totality of investors** but this does not mean that they have to reflect highly relevant information available to a minority, via inside information, superior analysis, etc.

It is a matter of **common observation** that results are often announced by companies which 'surprise' the market taken as a whole and which then lead to share price adjustments. The above average analyst will not be 'surprised' by the results and will have taken earlier action.

2. It cannot be denied that clear trends in overall market movements do emerge over time, as do sectoral index trends against the market (relative sectoral strength or weakness). This surely means that 'trading rules' — if intelligently formulated and used — **can** be used to beat the market. The great thing is not to use excessively short-term trading rules. I have found mechanical trendline penetration techniques to be efficient in beating the market,

provided the trends are sufficiently clearly established in time.

3. The efficient market school often claims as support for its cause that its members have never yet met anyone who has been able consistently to outperform the market. Ignoring for the moment what implications this might have for their social circumstances, this is clearly bad logic: the fact that I have personally never met a member of the efficient market school does not mean they do not exist.
4. The writers themselves concede that their first two tests — on price sequences and on trading rules — 'do not prove' the validity of the efficient market hypothesis. They must then perforce lean heavily on their third — portfolio performance tests using mutual funds. Now I contend that it is precisely here where the methodology is at its weakest:
 - (a) They examine a relatively short (1973 to 1976) period of time.
 - (b) They ignore the distortions arising from the mutual funds' then requirement to hold approved securities as well as other (maximum 5% holdings in any one share, etc.) provisions of the Unit Trusts Control Act.
 - (c) They do not take into account the most important constraint on the fund managers: their constant vulnerability to both cash inflows and outflows. **Outflows** from the industry over the four calendar years have been as follows:

| | 1973 | 1974 | 1975 | 1976 |
|----|------|------|------|------|
| Rm | 42 | 30 | 5 | 8 |

- (d) The mutual fund industry (for which I hold no particular brief) is, in any event, most unrepresentative of the market as a whole. Transaction studies done by the JSE indicate that between, for example, August 1974 and January 1977 mutual funds accounted for between 0,7% and 3,6% of transactions measured. It is surely no good examining the behaviour of a 0%-5% segment of the market with

the purpose of drawing conclusions about the market as a whole. (Paradoxically, it would be equally meaningless to attempt to prove that managers cannot beat the market even if the industry were fully representative. If the industry is the market it will not be able to beat itself. The average is the average.)

I maintain that although other markets, particularly the US, may well be more 'efficient' than our own, the efficient market hypothesis is almost certainly nonsense. It is certainly not proved in the paper by Gilbertson and Roux.

R. I. K. JESSE

REPLY BY DR F. J. P. ROUX

The comments expressed by Jesse suggest that he has little knowledge of the efficient market hypothesis (EMH) and even less evidence to disprove the hypothesis.

Regarding points 1 and 2, phrases like 'a matter of common observation' and 'it cannot be denied that' have no meaning in disproving a hypothesis which has withstood rigorous statistical and empirical testing. Many who do not believe the EMH resort to such anecdotal utterances as proof of market inefficiency. If Jesse is convinced that the market is not efficient

then he should prove that it isn't and publish his results. Jesse's third point is irrelevant and not worthy of comment.

As regards point 4(a), mutual fund performance was analysed over the full period during which the funds had been operating in South Africa (i.e. from 1965) as was indicated in reference 10. The authors will gladly test the performance of any other portfolios over longer periods of time if the necessary data are available. Points 4(b) and 4(c) clearly illustrate Jesse's ignorance on this subject. I suggest he reads reference 19 of our publication.

In point 4(d) Jesse indicates that the mutual fund industry may not be representative of the market. I fail to see, however, the relationship between transactions measured and total market capitalisation of the mutual fund industry. Be this as it may, Jesse's point is nonetheless irrelevant. The mutual fund industry employs analysts and chartists who continually recommend shares which they believe will have superior performance. If these portfolios cannot outperform the market there is good reason to suspect that other portfolios would also be unable to do so. Our reason for testing mutual fund performance was because the data were readily available. Data were not available for other portfolios.

Lastly, our paper did not attempt to 'prove' the EMH. It only summarised briefly the findings of three reports (references 10, 15 and 20) that had been prepared on the subject. Some of those who disbelieve the EMH have requested copies of these reports and may yet offer constructive criticism. Jesse has done neither.