Australian Study

HIGGLEDY PIGGLEDY GROWTH

"My impression is that many stock brokers, financial journalists, economists, and investors, believe that past growth behaviour is some sort of guide to future growth." "It is useless to try to predict future earnings from any single past earnings growth ratio . . ."

by

ADRIAN HOLST

These two sentences are taken from an article entitled *Higgledy Piggledy Growth* by I. M. D. Little, published in the Bulletin of the Oxford University Institute of Statistics (November, 1962). The first sentence is from the introduction and the second from the conclusion. In his article Mr. Little reports the results of an extensive and detailed investigation of the performance of 522 U.K. companies over the period 1951-59.

He shows that companies with a higher than average growth rate in the past do not, on the average, subsequently grow more rapidly than other companies. To do this he uses the pre-tax earnings. The figures were adjusted for bonus and cash issues by Moodies Services Ltd. Mr. Little used the Oxford computer to do many lagged and unlagged correlations. He also performed a demonstration, a simple example of which I have repeated using Australian companies. This is set out below.

I used the earnings growth index from *Selected Australian Ordinary Shares* published by Ian Potter & Co., April, 1964. This is an index of the growth of net profit, suitably adjusted for cash and bonus issues and takeovers, etc., and, in that Edition, covers a ten-year span. For this purpose, companies were excluded which did not have a complete record from 1954-63, i.e., companies which were not listed in 1954 or companies for which 1963 profit figures were not available at the time of publishing *Selected Australian Ordinary Shares*. Mining companies were also excluded.

After excluding the companies described above, 149 companies remained. The companies were ranked according to the growth of earnings per share from 1954 to 1959. After ranking the companies, they were divided as nearly as possible into five equal groups numbered 1 to 5 (see Table I).

TABLE I

The percentage growth of earnings per share from 1954 to 1959 of each of the companies surveyed, the companies being listed in increasing order of growth.

GROUP 1	
York Motors	—70.8
Bruck	—57.6
Hilton	—52.1
A.G.C.	—43.9
Permewan Wright	—42.7
Elder-G.M.	—41.8
Taubmans Ind.	—38.4
Cyclone	—37.5
Yarra Falls	—35.1
Cox	—34.9
Tom Piper	—33.5
Mayne Nickless	—33.4
Boral	—27.7
I.A.C.	—26.7
Provincial Traders	—24.9
McIlwraith McE	—24.6
Brooklands	—24.1
Wilkie	—23.3
Henry Jones	—20.3
F. J. Walker	—20.3
Gordon & Gotch	—19.5
Kelvinator	—18.9
Olympic	—17.2
Prestige	—15.2
Commercial Bank of Aust.	—14.0
Bradford	—12.4
Wunderlich	—10.4
Containers	—10.3
Brambles	— 6.6
Waltons	— 5.3
Group 1 AVERAGE	—28.1
GROUP 2	
J. Gadsden	— 4.6
Perry Engineering	— 3.0
William Adams	— 2.4
Aust. Chemicals	— 1.7
Edwards Dunlop	— 1.6
F. & T.	— 0.6
McPhersons	— 0.1
David Jones	— 0.1
Mutual Acceptance	+ 0.1
Humes	0.5
E. Z. Industries	0.5
K. G. Luke	1.0
National Bank	1.3
MacRobertson	9.1
Consolidated Milk	11.2
G. & R. Wills	11.8
Tooheys	14.1
Bank of N.S.W.	15.2
Comeng	15.2
E. S. & A. Bank	15.5
Woolworths	16.4
Swan Brewery	18.0
G. J. Coles	19.4
C.B.C. of Sydney	20.0
Bonds Ind.	20.1
Millaquin	20.2
Martin Bright	20.4
Evans Deakin	21.5
M.L.C.	21.8
Group 2 AVERAGE	8.9
GROUP 3	
Steamships Trading	23.2
Tooths	23.3
Castlemaine	25.0
Sidney Cooke	25.6
H. C. Sleigh	26.4
Brickworks	27.1
General Credits	28.5
Duly & Hansford	29.1
Mauri	29.3
British Tobacco	29.8
Marrickville	30.6
Colonial Gas	30.7
Gerrard	31.2
Federal Hotels	31.3

M. B. John	32.0
Victoria Insurance	32.7
A.N.Z. Bank	33.3
S.A. Portland Cement	34.5
Clyde	35.1
Moulded Products	36.8
Cellulose	38.6
N.Z. Forest Products	39.8
P.G.H.	40.9
Speciality Press	40.9
John McIlwraith	41.8
Consolidated Press	43.3
Myer	44.4
Washington H. Soul	46.2
D.H.A.	46.6
J. Fielding	46.6
Group 3 AVERAGE	34.2
GROUP 4	
Hardie Trading	46.8
Lamson	49.2
A.P.M.	49.3
C.I.G.	50.6
Quarry Industries	50.7
Queensland Can	51.1
Mercantile Mutual Ins.	51.1
I.C.I.	52.9
Melbourne Co-op.	54.2
Queensland Insurance	54.4
Dunlop	55.3
Johns & Waygood	55.3
Adelaide Cement	56.3
Thompsons (Castlemaine)	57.4
Peters	58.6
S.A. Brewing	60.4
Life Savers	64.7
G. E. Crane	67.2
Queensland Cement	71.9
Aust. United Invest.	72.4
Moran & Cato	76.3
James Hardie	76.3
A.R.C.	79.3
C.S.R.	79.5
Repco	81.5
B.M.I.	82.0
Swift	83.4
James Stedman	84.4
Herald	86.2
Metro Dairies	90.2
Group 4 AVERAGE	65.0
GROUP 5	
Carlton Brewery	92.3
Mt. Isa	92.4
B.H.P.	94.2
Myttons	97.7
A.C.I.	107.6
A.P.P.M.	108.8
Newbold	113.1
S.A. Rubber	116.6
A.W.A.	117.9
R.M.C.	118.4
David Syme	122.3
Rocla	123.4
Reid's Quarries	157.9
National Consolidated	165.5
Ampol Petroleum	170.8
Albion Quarries	172.1
Appleton Industries	173.7
Concrete Industries	182.1
Australian Cement	184.7
Advertiser	184.7
Minster	206.4
Burns Philp	223.4
Brick Industries	245.6
News	282.8
Allied Mills	287.7
W. R. Carpenter	291.8
Ensign	301.7
Cascade	303.3
International Resistance	346.2
Custom Credit	419.4
Group 5 AVERAGE	186.8

(Note:—The negative figures indicate a decline in earnings per share.)

The growth of earnings per share from 1959 to 1960 was also calculated for each company and an average was struck for the companies in each of the five groups. The results are set out in Table II. A separate calculation was made of the growth of earnings per share from 1959 to 1963. Once again the growth of earnings per share was averaged for the companies in each of the five groups (see Table II).

TABLE II

Percentage Growth of Earnings per Share Averaged for the Companies in each Group

	From 1954 To 1959	**From 1959 To 1960**	**From 1959 To 1963**
Group 1	-28.1*	7.1	20.1
2	8.9	12.4	24.0
3	34.2	8.3	12.7
4	65.0	6.1	13.7
5	186.8	9.3	5.8

(* From 1954 to 1959 the earnings per share of all the companies in Group 1 *declined*. The average drop in earnings per share was 28.1%)

The figures for percentage growth of earnings per share set out in Table II are not annual rates of growth but percentage growth over the whole of the relevant period. The first column covers the growth in a five year period, the second column the growth in one year and the third the growth in four years.

These figures are more readily appreciated if they are converted to equivalent *annual* percentage rates of growth. These annual percentage rates of growth of earnings per share are set out in Table III.

It will be remembered that Group 5 consists of the thirty companies which had the most rapid rate of growth of earnings per share from 1954 to 1959. It is interesting to see in Table III that in the following four years (1959 to 1963) this group of companies grew less rapidly than any other group. This is exactly the reverse of what would be expected by those who believe that past growth of earnings per share is a guide to future growth of earnings per share. The companies in Group 1 were the thirty companies which had the most rapid rate of *decline* of earnings per share from 1954 to 1959 yet in the following years (1959 to 1963) they experienced a better rate of growth of earnings per share than the companies in most other groups. This too must surprise those who believe that growth breeds growth.

These results based on 149 Australian companies are similar to the results of Mr. Little's very thorough survey of 522 U.K. companies.

It could be argued that the different economic circumstances

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price, average operating costs and recoverable average ground values during the life of the mine.

The calculation of present value provides management with a basis on which to assess the worth of an investment, and is of use when it is necessary to make decisions on mining policy and development. It is also determined for many other reasons, such as the transfer of land from one mining company to another, the sale of tin-bearing agricultural land to a mining company, and for assessment of death duties. Apart from these reasons, it is sometimes difficult for a miner or a mining company to assess the value of mining land unless the present value is calculated. For example, it is not immediately obvious which of the following propositions is the best investment:

(a) Land yielding $100,000 per year for 20 years, total yield $2,000,000.

(b) Land yielding $150,000 per year for 10 years, total yield $1,500,000.

The present values, allowing 15% risk rate and 3% on the sinking fund, are:

(a) $534,100.

(b) $632,250.

Approximately the same difference in favour of (b) results if simple interest of 15% per year only is allowed and the sinking fund is neglected.

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company's p u b l i s h e d accounts. S o m e volume of unpresented cheques is only to be expected, but concern could be expressed at a situation where the volume is abnormally increased at the time of preparing a balance sheet and particularly where some are not even despatched to creditors at that time. Whilst the total of current liabilities is not affected, the apparent bank overdraft facilities of the company are increased beyond the true position and perhaps far beyond the actual overdraft limit of the company. A large amount of overdraft accommodation in use may appear to show a confidence in the company on the part of its bankers, and along with an understatement of amounts owing to creditors could create a wrong impression of the situation of the company.

20. There is no untoward effect so far as a debenture trust deed is concerned. Provision is normally made for the figures disclosed in the audited published balance sheet to be used as a basis for calculating borrowing limitations, and the effect may be to overstate secured borrowings and reduce the margin available under an open-ended deed for the issue of further debentures. However, a purchaser of debentures could be misled as to the strength of the industrial company concerned, and a case can be made for the publication in annual accounts of (i) the arranged bank overdraft limit or (ii) a reconciliation between book and actual bank overdraft. It is believed that a statutory provision along these lines would be supported by many bankers who have been embarrassed through the linking of their names with company overdraft facilities of a degree that they would not entertain.

(To be continued.)

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between the first period, 1954 to 1959, and the second period, 1959 to 1963, might have led to abnormal results, and that if the economic circumstances had remained unaltered the survey would have shown that growth does breed growth. It is my impression that those who believe that "growth breeds growth" believe that their selected growth stocks will perform better than average, no matter what the average does. If so, they cannot claim that the change in economic circumstances invalidates the results set out above. On the other hand, if it is claimed that past growth is a guide to future growth only so long as economic conditions remain static, then this guide is of little practical value whether it is correct or not.

These results support Mr. Little's belief that past growth of earnings is not a useful guide to likely future growth of earnings.

TABLE III

Annual Percentage Growth Rates of Earnings per Share Averaged for the Companies in each Group

	From 1954 To 1959	From 1959 To 1960	From 1959 To 1963
Group 1	-6.6*	7.1	4.7
2	1.7	12.4	5.5
3	6.0	8.3	3.0
4	10.5	6.1	3.3
5	23.4	9.3	1.3

(* From 1954 to 1959 the earnings per share of all the companies in Group 1 *declined.* The average rate of decline was 6.6% p.a.)

At first glance it may seem strange that 23.4% p.a. is equivalent to a growth of 186.8% in five years (these are the figures for Group 5 from 1954 to 1959). These figures are reconciled in the table below.

TABLE IV

Earnings	1954	100.0	23.4%	Growth of earnings	54/55	23.4
	1955	123.4	23.4%	,, ,, ,,	55/56	28.9
	1956	152.3	23.4%	,, ,, ,,	56/57	35.7
	1957	188.1	23.4%	,, ,, ,,	57/58	44.2
	1958	232.3	23.4%	,, ,, ,,	58/59	54.5
	1959	286.8				

Thus at a growth rate of 23.4% p.a. over five years, a growth from 100 to 286.8 results, an increase of 186.8% in five years.