

## MANAGING AN INTERNATIONAL INVESTMENT FUND

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If this were the annual dinner of the international fund manager's club, I suppose I would make a speech deploring the new handicaps imposed on us during the past year. International fund managers acting for investors in the two largest world stock markets - the USA and the UK - have for a number of years lived with restrictions on outward investment either in the form of Federal Voluntary Restraint, Interest Equalisation Tax, the Dollar Premium Surrender or the Back-to-Back Loan Rules. Earlier this year however one of the smaller but more interesting areas for inward investment - Switzerland - was closed to new non-resident net purchases and in the last two weeks the Japanese authorities have imposed a similar bar.

But this is not a club dinner, and serious though the restrictions are, I thought it might be more interesting this afternoon first to argue the case in favour of a European or indeed global approach to fund management. Secondly, I should like to discuss some of the problems encountered when attempting to compare, on an international basis, the merits of alternative investment opportunities.

On the first point I shall rest my case on three propositions, namely that share price movements are determined to a large extent by movements in the stock market as a whole, that stock market movements around the world are not highly correlated and that a lower degree of risk, for any expected level of return, can therefore be obtained from a geographically diversified portfolio.

In crude terms the movement in the price of any stock can be thought of as being determined by the combined influence of a number of factors. These factors can conveniently be divided into a market influence that affects all stocks within one industry, other common influences affecting a limited group of stocks, including sub-industry groupings, and finally, a residual factor which represents influences affecting the particular stock concerned.

No doubt many of you are aware of published statistical research, most of it based on U.S. experience, which attempts to isolate and quantify these various influences. For instance, U.S. statistics for the period 1952 - 1960 indicate that on average around one third of the variation in a stock's price appears to be explained by the market influence, while nearly half appears to be attributed to the industry influence plus other common factors, leaving a residual of only 20% to be explained by factors peculiar to the individual stock. The market factor, furthermore, becomes more important during periods of major market disturbances as indicated in the U.S. data for 1927 - 1952 which includes the violent upheavals of the late 1920's and early 1930's. This is illustrated in the following table. (Table I.)

Of course, for some industry groupings the market influence is more important than for others, this influence depending to a large extent on the degree to which the earnings of any particular industry are determined by the general economic and business climate. The earnings of the tobacco and cosmetic industries, for instance, are not highly sensitive to the general economic environment and it is therefore no surprise to find that shares within these industries are relatively insensitive to general stock market movements.

Assuming the U.S. evidence is generally applicable, one would conclude that for the management of an international fund the which-market? which-sector?

TABLE I INFLUENCES ON STOCK PRICE CHANGES

Proportion of variation due to various factors

The U.S. Experience

| 1. <u>1952-1960</u> | Industry        | Factors Peculiar | General | Industry | Other Common |
|---------------------|-----------------|------------------|---------|----------|--------------|
|                     |                 | to Stock         | Market  | Factor   | Factors      |
|                     |                 | %                | %       | %        | %            |
|                     | Tobacco         | 25               | 9       | 17       | 49           |
|                     | Oil             | 15               | 37      | 20       | 28           |
|                     | Metals          | 15               | 46      | 8        | 31           |
|                     | Railroads       | 19               | 47      | 8        | 26           |
|                     | Utilities       | 22               | 23      | 14       | 41           |
|                     | Retail Trade    | 27               | 23      | 8        | 42           |
|                     | Overall Average | 20               | 31      | 12       | 37           |
| 2. <u>1927-1952</u> |                 |                  |         |          |              |
|                     | Tobacco         | 17               | 36      | 15       | 32           |
|                     | Oil             | 10               | 54      | 19       | 17           |
|                     | Metals          | 8                | 63      | 9        | 20           |
|                     | Railroads       | 8                | 63      | 11       | 18           |
|                     | Utilities       | 15               | 47      | 13       | 25           |
|                     | Retail Trade    | 14               | 48      | 11       | 27           |
|                     | Overall Average | 12               | 52      | 13       | 23           |

Source: Benjamin King; "Market and Industry Factors in Stock Price Behaviour," Journal of Business, January 1966, as summarised by Richard Brealey in "An Introduction to Risk and Return from Common Stocks."

TABLE II ANNUAL PERCENTAGE MOVEMENTS IN WORLD STOCK EXCHANGES

|   | <u>1972</u>     | <u>1971</u> | <u>1970</u> | <u>1969</u> | <u>1968</u> |
|---|-----------------|-------------|-------------|-------------|-------------|
|   | (To October 25) |             |             |             |             |
| United Kingdom<br>Financial Times<br>Industrial<br>Ordinary Index | + 0.4%          | + 42%       | - 16.4%     | - 20%       | + 30%       |
| U.S.A. - Dow<br>Jones Index                                       | + 6.9%          | + 7%        | - 5.6%      | - 15.2%     | + 4%        |
| Australia - Sydney<br>All Share Index                             | + 17.1%         | - 2.8%      | - 21.1%     | + 1%        | + 34%       |
| Germany -<br>Herstatt Index                                       | + 10.6%         | + 3.2%      | - 27.6%     | + 9.9%      | + 12.6%     |
| France - Paris<br>Bourse Committee<br>Index                       | + 30.9%         | - 7.5%      | - 8%        | - 26.3%     | + 12.8%     |
| Japan - Dow<br>Jones Index  | + 63.8%         | + 35.7%     | - 15.8%     | + 37.5%     | + 33.6%     |

questions are considerably more important than the which-stock? question. Given the pre-eminence of the market factor the manager can minimise his risk by selecting a geographically diversified portfolio or maximise his rate of return (incurring a correspondingly greater risk) by concentrating investments in those markets for which above-average performance is anticipated.

However, the argument in favour of this type of approach breaks down if the movements of the world's major stock markets tend to be of the same magnitude as well as in the same direction. The fund manager cannot reduce risk by investing in a number of highly correlated markets any more than he can increase his prospective rate of return by switching investments between such markets. Indeed, the whole concept of international fund management with all its attendant complications in the form of know-how and communications problems, has little validity if national stock markets have a high degree of interdependence.

On this point it might be argued that there is an increasing synchronisation of international economic trends. The integration of national capital markets together with the increasing dependence of industrial economies on international trade, might suggest that world-wide economic forces would be reflected in a marked similarity in the behaviour of national stock markets. However, the performance of major stock markets in recent years (Table II) does not support this view, although the influence of the general economic slow-down which began in 1970 can be seen in the weakness of most markets during that year. Even here it is interesting to note that the French economy has continued to grow rapidly during the past three years, while Italy has yet to emerge from a prolonged period of stagnation, indicating that as yet there is no such thing as a fully fledged world-wide economic cycle - nor, indeed a Common Market cycle.

For short-term periods varying between one week and three months, there has been a certain amount of statistical research into stock market correlations (a summary of this work appeared in an article by Professor Granger in an issue of Money Management in August last year.) The general conclusion is that the degree of co-variation between markets tends to increase with the length of the holding period but that even for quarterly periods the correlations remain quite low, with a few exceptions such as the close interrelation found between New York and Montreal. I might also add that as between identical industrial sectors in different markets the degree of correlation depends largely on the exposure of these sectors to international trade; for instance the U.S. chemical sector, which has a relatively high import and export content, is quite closely correlated with the German and U.K. chemical sectors. The message for the international fund manager is that only a limited degree of risk diversification is achieved by splitting an investment between the U.S., U.K. and German chemical industries.

Having established the point that market movements have a dominant influence on the behaviour of stock prices and that stock markets around the world do not have a high degree of co-variance one with another, it follows that an international approach to investment management has important advantages, the nature of which depend on the investment policy pursued.

The fund manager can adopt one of two approaches. He can take the view that the relative performance of national stock markets is something beyond the scope of his, or perhaps anyone's predictive powers, in which case he may simply decide upon a broad geographical spread, to be maintained indefinitely and designed solely to minimise risk. Even from this defensive point of view there is some advantage for the low-risk investor in an internationally orientated fund.

At the other extreme a fund manager may, on the basis of a predilection for a particular market, concentrate the funds' investments in one area - a high risk/high reward approach, the value of which depends on the skill of the manager.

TABLE III PORTFOLIO COMPOSITION : THREE EXAMPLES

| <u>AMRO-PIERSON FUND</u>     | % of Market Value of Total Portfolio |               |              |              |             |              |
|------------------------------|--------------------------------------|---------------|--------------|--------------|-------------|--------------|
|                              | <u>U.S.A.</u>                        | <u>EUROPE</u> | <u>JAPAN</u> | <u>OTHER</u> | <u>CASH</u> | <u>TOTAL</u> |
| 1970 (January)               | 21.8                                 | 38.9          | 10.1         | 5.7          | 23.5        | 100          |
| 1971 (January)               | 24.0                                 | 35.2          | 15.2         | 8.7          | 16.9        | 100          |
| 1972 (January)               | 30.5                                 | 37.9          | 12.2         | 6.8          | 12.6        | 100          |
| 1972 (July)                  | 33.0                                 | 43.0          | 10.5         | 6.0          | 7.5         | 100          |
| <u>ROBECO</u>                |                                      |               |              |              |             |              |
| 1969 (December)              | 28.9                                 | 51.5          | 7.0          | 3.3          | 9.3         | 100          |
| 1970 (December)              | 31.0                                 | 44.5          | 10.1         | 4.3          | 10.1        | 100          |
| 1971 (December)              | 36.2                                 | 38.3          | 17.7         | 4.7          | 3.1         | 100          |
| 1972 (September)             | 32.2                                 | 37.5          | 15.7         | 10.2         | 4.4         | 100          |
| <u>TYNDALL INTERNATIONAL</u> |                                      |               |              |              |             |              |
| 1969 (August)                | 14.4                                 | 29.4          | 27.4         | 17.5         | 11.3        | 100          |
| 1970 (August)                | 5.4                                  | 27.6          | 25.3         | 20.0         | 21.7        | 100          |
| 1971 (August)                | 32.7                                 | 29.2          | 23.0         | 23.9         | (8.8)       | 100          |

TABLE IV INTERNATIONAL EXCHANGE RATES

|                         | Currency units per pound |          | % Appreciation(+)/<br>Devaluation(-)<br>versus sterling | % Change in Stock<br>Market<br>End 1961-End 1971 |
|-------------------------|--------------------------|----------|---|--|
|                         | End 1961                 | End 1971 |   |  |
| FRANCE                  | 13.76                    | 13.30    | + 3   | - 24   |
| GERMANY                 | 11.22                    | 8.35     | + 25  | - 21   |
| ITALY                   | 1,742                    | 1,515    | + 13  | - 55   |
| SWITZERLAND             | 12.11                    | 10.00    | + 17  | 0  |
| JAPAN                   | 1,018                    | 803      | + 21  | + 107  |
| U.S.                    | 2,808                    | 2,550    | + 9   | + 49   |
| U.K.                    | -                        | -        | -   | + 103  |
| INVESTMENT \$<br>(HARD) | 2,810                    | 2,014    | + 28  |  |
| INVESTMENT \$<br>(SOFT) | 2,726                    |          |   |  |

Needless to say, most international funds adopt an approach somewhere between these two extremes, varying the geographical emphasis in line with changing conditions but avoiding heavy concentrations in particular areas. I have taken at random three international funds - Amro-Pierson, Robeco and Tyndall International - over a period of three years. (Table III) You can see that, based on their reporting dates, they have rarely had more than a third of their fund in any one major geographical area. However, it is interesting to note that the great majority of international funds are inclined at all times to maintain a substantial stake in the U.S. For example, of 32 international equity funds listed in the latest edition of International Fund Year Book and which give a geographical breakdown of their portfolios, 26 had more than 30% of their total assets invested in the U.S. The average investment in the U.S. for these 32 funds was over 40%. On theoretical grounds it is not clear why this should be, though two practical answers are probably that the number of securities and their marketability in the U.S. gives the manager the manoeuvrability he desires while in the absence of such weighting the fund manager, as distinct from the fund itself, would be at risk, since the U.S. market indices are commonly used as a yardstick by which to judge the performance of international portfolio.

In summary, geographical diversification provides the same kind of opportunities for the fund manager as does sectoral diversification within a single national stock market.

In drawing an analogy between sectors within a national market, and national markets within a world economy, there is, of course, one important qualification. So long as foreign investment is subject to the tax disincentives that I mentioned at the start, the investor has to weigh the fiscal cost of investing abroad against the benefits which are expected to accrue.

Nevertheless, I hope I have convinced you that a logical case can be made for global rather than national investment portfolios. It now remains for me to say something about market and share selection within an international context.

Perhaps I should begin this task by pointing out some of the pitfalls involved in international comparisons of investment situations.

It is commonly objected that one of the difficulties of investing abroad is that accounting practices vary and that reported earnings must therefore be adjusted in order that the fund manager may compare like with like. Only then, it is said, can he be in a position to assess the relative values of shares in different stock markets.

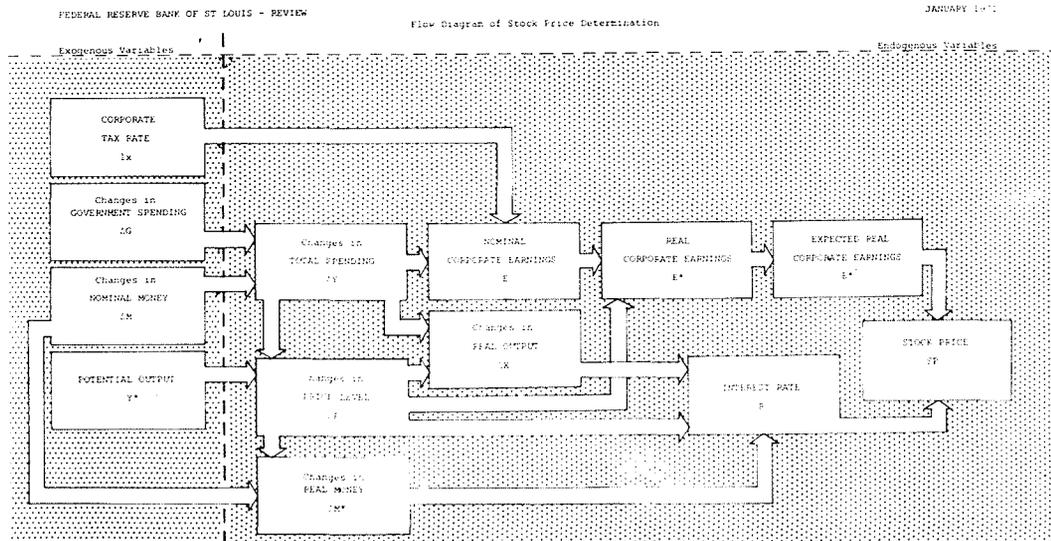
Logically, however, I think that this argument is untenable. The relative point is not whether the foreign investor himself considers the reported earnings to be meaningful or accurate, but whether the majority of local investors consider them to be so. It is generally known that in certain countries companies have three sets of accounts, one for the directors, one for the shareholders and one for the tax office. Some companies are inclined to even out some of the cyclical fluctuations in profits in order to reassure shareholders. The foreign investor might therefore be tempted to prefer the "official" accounts as a basis for his evaluation. But in so far as the local investing public is concerned primarily with the profits performance as reported to them, he would be applying the wrong measuring rod. What matters to the foreign investor is to be as little or as much informed as the local investor.

In this connection, it really is important, in my view, for the international fund manager to be in regular and consistent contact with colleagues or advisers in each of the main markets. We at Rothschilds are particularly fortunate in having had for many years regular investment meetings between

TABLE V

| <u>COUNTRY</u> | <u>MONETARY INFLUENCE</u><br>(Change in nominal GNP<br>resulting from change in<br>quantum of money) | <u>LAG (MONTHS)</u> | <u>VELOCITY</u><br>(nominal GNP<br>divided by<br>money stock) |
|----------------|--|---------------------|---|
| GERMANY        | 8.9  | t-3                 | 5.6   |
| NETHERLANDS    | 6.0  | t-5                 | 4.2   |
| U.S.           | 5.5  | t-4                 | 4.6   |
| CANADA         | 4.3  | t-6                 | 5.1   |
| JAPAN          | 2.8  | t-2                 | 3.6   |
| BELGIUM        | 2.6  | t-3                 | 2.8   |
| FRANCE         | 2.1  | t-2                 | 3.0   |
| ITALY          | 1.9  | t-3                 | 2.2   |
| U.K.           | 1.4  | t-6                 | 2.7   |

SOURCE: M.W. Keran, "Monetary and Fiscal Influences on Economic Activity: The Foreign Experience," Federal Reserve Bank of St. Louis Review, February, 1970.



members of the investment departments of banks with which we are associated in Europe and the U.S. This has been particularly helpful to us in London in managing international portfolios and it gives me particular personal pleasure to see representatives of several of those banks here as speakers at this Seminar.

Even with the benefit of friends in other countries, the international fund manager has still to make the investment decision. For instance he has to decide what significant to attach to the differing price earnings ratios of similar stocks in different markets. There are a number of important reasons for expecting price earnings ratios of stocks within the same industry to vary significantly as between different stock markets: the marketability may be different, the risk factor may be different, as for instance in Japan where the average debt-equity ratio is considerably higher than for most industrial economies; the regulatory climate in a particular industry may be more stringent in one country than another; or the same industries, within two countries may be in different cyclical phases. Most important, investor psychology varies from market to market and in a world where the mobility of capital is restricted such variation can account for major differences in the valuation of securities. For these reasons I would be suspicious of the argument that a particular stock market is "cheap" in the short-term merely because the average price-earnings ratio is low on international comparisons - it seems to me implausible that a market should suddenly be "re-rated" so as to bring it into line with market levels elsewhere, unless, that is, foreign investors exert a dominant influence. After all, in 1960 it could be argued that French equities were cheap relative to U.K. and U.S. equities and they were still cheap in 1970. In general it would seem wiser to view the level of a market within its own historical context.

If direct international comparisons of this kind are misleading, how is the manager of an international fund to determine the relative attractions of different markets?

First, to what extent should he weigh up the relative attractions of currencies. For much of the past decade - with fixed currency exchange rates - it was probably right for international fund managers to argue that stock market movements would have greater impact on their portfolios than currency movements. The abrupt alteration last year in the value of the dollar relative to other currencies, the subsequent upward pressures on the DM and Yen, and more recently the floating of sterling have now made currency exchange rates a more important factor in an investment manager's calculations. This particularly applies for a manager of an international fund based in the Bahamas or Curacao denominated in dollars or an international fund based in continental Europe and denominated in a local currency. They can purchase currency for their securities direct. The U.K. manager however has to purchase premium currency unless he borrows foreign currency to acquire his foreign securities. The next table (Table IV) which does not take account of the decline in sterling in recent weeks, is a somewhat parochial one. It compares changes in leading currencies relative to sterling over the past decade with changes in the equity markets of the same countries. It also shows the effective change in the "currency premium" or "investment dollar." It is interesting to note that even after taking account of the fall in sterling and the rise in currency premium (and after deducting a quarter of it, under the surrender rules) the U.K. investor would have done better over the past decade to have stayed in the U.K. market rather than invest in any other country listed, with the notable exception of Japan. However, it must be stressed that the currency premium market is highly volatile and serious conclusions should not be drawn from one set of figures.

Back, therefore, to the fundamental question of determining the relative attractions of different stock markets. I would suggest that the only rational approach to this problem is to apply certain basic economic criteria. By this I do not mean that one should assess the attractions of any particular stock market simply in terms of the prospective economic growth rate

of the country concerned. This kind of approach often results in erroneous conclusions: for instance, in the decade 1961 - 1971 industrial output in France, Italy and West Germany increased in each case, but around 75%, more than twice the rate of increase achieved by the U.K. Yet over this period the French and German markets declined somewhat, the Italian market fell by over 50% while the level of the London market doubled. Nor would the rise in retail prices have been any better guide to stock market trends in these countries over the past decade.

I have selected the above examples with a view to demonstrating the dangers of using simplistic economic forecasts as a basis for assessing the relative attractions of stock markets. It does not follow that variations in GNP or in the rate of change of retail prices are unrelated to stock market cycles. However, what is needed is a more sophisticated framework for analysing stock price movements.

I would start with the standard theory of stock price determination, that is, discounting to present value expected future earnings. This theory suggests that the major factors determining stock prices are expected corporate earnings and current interest rates, the latter determining the rate at which future earnings must be discounted in order to arrive at a present value. We then have to consider the major determinants of these two variables. At this point I will not bore you with theoretical detail: suffice it to say that there has been a considerable amount of empirical research on these questions (much of it summarised in Dr Beryl Sprinkel's book "Money and Markets") and what emerges is the critical importance of monetary factors, both in determining corporate earnings via changes in GNP and in determining the level of interest rates via liquidity effects, expectations of inflation and the demand for credit. A recent study by the Federal Reserve Bank of St Louis incorporates the theory of stock price determination into its model of the U.S. economy and a complex Flow Diagram has been constructed illustrating the chain of causation postulated by this model (Appendix I.)

The Federal Reserve Bank of St. Louis has also attempted both to quantify the impact on different economies of a given increase in the money supply and determine the time-lag which must elapse before this impact is fully apparent. The results can be found in the next table (Table V.) This shows that in the case of Canada, for instance, for every 1% increase in the money stock there will be a 0.3% increase in GNP over the current and six following quarters. As you can see the figures vary considerably as between different countries. It is interesting to note, too, that the strength of the monetary influence seems to be closely connected with the income velocity of money, that is the ratio of the money stock to national income.

Turning finally to the question of how the international fund manager determines what proportion of his fund he allots to securities of a particular country or keeps in cash, I would suggest that he would say, if asked to rationalise his action, that he had weighed up the various risks against the expected returns. Now, as you all know, a great deal of academic work has been done on risk/reward ratios in the investment field, and in particular the subject of optimum diversification. Mathematical models have been constructed for single market portfolios to give the minimum risk for a stated expectation of return. We at Rothschilds are currently examining whether these techniques can be equally well applied to multi-market portfolios.

Most of us working in the investment field would like to believe that the subject is capable of rationalisation. Accordingly, mechanistic approaches to stock market analysis are rather appealing. However, most of us are also realists. We know that every market must be examined within a social and political context and that past relationships need not necessarily hold in the future. For the moment, at any rate, we are not quite ready to accept the advice of the American folk singer Bob Dylan, who says "The answer, my friends, is blowin' in the wind, the answer is blowin' in the wind."