FUNDAMENTALS, CAPM AND SYSTEMATIC RISK: AN ALTERNATIVE APPROACH TO INVESTMENT APPRAISAL

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Analysis of the fundamental operating and financial characteristics of a company can provide relevant information for decision making on the viability of proposed projects and share valuation. The fundamental factors to be considered include: income sources and growth; earnings variability; financial structure etc.

The consideration of fundamental factors as part of risk assessment is an important aspect of the Arbitrage Pricing Theory (APT). The APT was a modification of the Capital Asset Pricing Model (CAPM). The CAPM has often been criticised for its unrealistic assumptions and impracticalities. However, one worthwhile contribution of the CAPM is that it identified the components of project and organisational risk and the need to analyse and quantify these factors.

The CAPM classifies risk into two component elements; *systematic* and *unsystematic*. Unsystematic (or diversifiable) risk relates specifically to each particular company. In theory, it can be diversified away by holding a portfolio of investments in different sectors.

On the other hand, systematic risk cannot be diversified away. This is the risk from forces outside of a firm's control. It is also called non-diversifiable or market risk. Inflation, interest rates, and Government policies are included this category. This type of risk is assessed relative to the risk of a fully diversified portfolio of securities, or the Market Portfolio. According to the mainstream theory in finance, the systematic risk applicable for each company is measured by its *Beta* (*B*) factor. Various quantitative models have been devised in an effort to calculate the *Beta* factor for companies. A *Beta* factor of one indicates that the risk of the investment is perfectly correlated with that of the Market Portfolio.

The CAPM can be used to calculate the firm’s cost of capital which is then used in the net present value and other calculations to estimate the return on proposed investments. Because of various difficulties, the CAPM is seldom used in practice. Most of the difficulties are encountered in attempting to measure *B*, and further problems arise in attempting to allocate a risk premium to individual projects.

However, the analysis of risk into its component elements can be the starting point for a more in depth and comprehensive assessment of proposed investments.

An Alternative Approach

Another approach to investment appraisal is to analyse the relationship between systematic risk and company fundamentals. This method views systematic risk as a combination of:

- The sensitivity of a company's fundamental factors (Income sources, costs, assets and finances etc.) to Macro-economic factors; *and*
- Its proportion of fixed to variable costs; *and*
- The likely impact of future events on the project/company fundamentals.

A detailed fundamental analysis would include (among other items):

- Identifying income sources and customer segments and estimating the impact of external factors on their revenues, costs and spending patterns etc.
- Carrying out a similar exercise on suppliers of all significant goods, services, assets, sources of finance etc.
- Analysis of costs (both operating and financial) to estimate fixed and variable elements
- Examination of other sources of information[1] in order to identify other relevant issues and risk factors
- Analysis of the available information to include standard existing ratios as well as relevant new and metrics
- Review of findings in order to identify resources, risk factors, opportunities and possible responses.

This approach is based on the scientific principle of complementarity so that information from various sources and perspectives is critically analysed and evaluated. It combines quantitative and qualitative data, and uses historic and current information in order provide a comprehensive understanding of the factors that can affect the viability of a proposed project and a firm's financial performance, position and share value.

[1] Other sources of information include: Notes to the Accounts; Cash Flow Statements; Management Discussion and Analysis; Industry, Competitor and other Reports; Trade and other Publications; Interviews with individuals from different backgrounds within the company, industry experts and other key informants etc.