

**SHAREHOLDERS' WEALTH MAXIMIZATION EFFECT
OF MERGERS AND ACQUISITIONS**

BY

SIFISO NCUBE

Submitted In partial fulfillment of the requirements for the degree of

MASTERS IN BUSINESS MANAGEMENT (MBA)

**Graduate School of Business, Faculty of Management Studies
University of Natal (Durban)**

Supervisor: Prof. E Thompson

July 2003

CONFIDENTIALITY CLAUSE

JULY 2003

TO WHOM IT MAY CONCERN

RE: CONFIDENTIALITY CLAUSE

Due to the strategic importance of this research it would be appreciated if the contents remain confidential and not circulated for a period of five years.

Sincerely

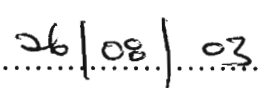
SIFISO NCUBE

DECLARATION

DECLARATION

This research has not been previously accepted for any degree and is not being currently submitted in candidature for any other degree.

Signed: 

Date:  096302

STATEMENT

ACKNOWLEDGEMENTS

I wish to acknowledge all those people who were helpful to me during the course of my dissertation. More especially I would like to extend my gratitude to the staff at the Johannesburg Stock Exchange (JSE) Customer Support desk: Madlyn Plamer and Nongcebo Mthembu for their hand in making my access to information possible and easy. Lastly but not least I would like to thank my supervisor Prof Thompson for her valued input towards this dissertation work. Most of all I thank god for giving me the inspiration and the wisdom to overcome this otherwise seemingly insurmountable task.

Thank you

ABSTRACT

In this study the effect of mergers and acquisitions on the wealth of shareholders is investigated by a case study method. The merger between Abraxas Investment Holdings and AST Ltd to form AST Group Ltd is investigated to establish any form of gains accruing to the shareholders whether abnormal or otherwise as a result of this merger. Two methods have been used to undertake this exercise namely the Stock Price Analysis and the Accounting data method. The accounting data method depicts an improvement in the post merger performance of AST Group Ltd as indicated by increases on the ratios such as Revenue; ROE; NAV and EPS. Improvement on these ratios has been interpreted as inferring an improvement on the value of the shareholders wealth.

On the other hand the stock price performance analysis depicts two scenarios. Shareholders do experience some abnormal gains in the period leading to the merger as measured by increases in the share prices of merger companies. In the post merger period the price of AST Group Ltd Share declines unabated thus signaling a drop in the value of shareholders wealth. This has also resulted in incessant decline in P/E ratios in the post merger period.

It has been concluded from this study that if the results of the investigation as outlined above are anything to go by then shareholders have not reaped the best possible results from this merger. AST Group Ltd has huge potential and capacity to afford its shareholders the best returns both in terms of book value and market value returns. A review of the integration strategy and appraisal of corporate objectives is required for this company to regain the confidence of the markets. AST Group Ltd needs to urgently arrest the decline in its share price or it will be exposed to a takeover bid soon

TABLE OF CONTENTS

	Page
1. CHAPTER ONE: - INTRODUCTION	1
1.1 Introduction	1
1.2 Background to the Problem	1
1.3 Motivation for the Research	2
1.4 Significance and Contribution of the proposed study	2
1.5 Problem Statement	2
1.6 Objectives of the Study	3
1.7 Research Methodology	3
1.7.1 Sample	3
1.7.2 Design and analytical techniques	4
1.7.3 Measuring Instrument	4
1.7.4 Administrative Procedure	4
1.7.4.1 Data Collection	4
1.7.4.2 Data Analysis	5
1.8 Limitations of the Study	6
1.9 Conclusion	6
 2. CHAPTER TWO: - REVIEW OF LITERATURE	 8
2.1 Introduction	8
2.2 General	8
2.3 Conglomerate vs Non-Conglomerate Mergers	12
2.4 Theories of Mergers and Acquisitions	14
2.5 Analysing Acquisition Strategy	15
2.6 Paying an Acquisition Premium	17
2.7 Does Company Performance improve after an Acquisition / Merger?	19
2.8 Measurement of Post Acquisition (or Merger) Performance	23
2.8.1 General	23
2.8.2 Performance Benchmark	28
2.8.3 Cash Flow Return Performance	28
2.9 Mergers and Acquisition Activity in South Africa	30
2.10 Why Do Mergers and Acquisitions Fail?	30
2.11 Who Actually Gains from a Merger	32
2.12 Conclusion	36

	Page	
3	CHAPTER THREE: - AST LTD / ABRAXAS INVESTMENT HOLDINGS MERGER	37
3.1	Introduction	37
3.2	General	37
3.3	Abraxas investment Holdings	37
3.3.1	Background	37
3.3.2	Abraxas Investment Holdings Strategy	38
3.3.3	Future Prospects for Abraxas Investment Holdings	39
3.3.4	Financial Performance	39
3.4	AST LTD	40
3.4.1	Background	40
3.4.2	Strategy	40
3.4.3	Financial Performance	41
3.5	The Merger	41
3.6	Rationale for the Merger	42
3.7	AST Group Ltd	44
3.7.1	General	44
3.8	Conclusion	45
4	CHAPTER FOUR: - ANALYSIS OF THE MERGER	46
4.1	Introduction	46
4.2	Valuation of Abraxas Investment Holdings	46
4.2.1	Valuation using CAPM	47
4.2.2	Valuation using Net Asset Value Method	48
4.2.3	Valuation using the Price/Earnings Ratio Method	49
4.2.4	What Premium was paid for the Abraxas Share?	50
4.3	Valuation of AST Ltd	51
4.4	The Merger Results	51
4.4.1	Accounting Data Analysis	51
4.4.2	Share Price Analysis	56
4.5	Conclusion	61
5	CHAPTER FIVE :- CONCLUSIONS AND RECOMMENDATIONS	62
5.1	Introduction	62
5.2	Conclusion	62
5.3	Recommendations	64
5.4	Summary	65

Bibliography

LIST OF FIGURES

	Page
1. Figure 3.1 :- Abraxas Share Price Performance	39
2. Figure 3.2 :- AST Group Ltd Share Price Performance	41
3. Figure 4.1 :- Revenue – AST Group Ltd	52
4. Figure 4.2 :- Return on Equity	52
5. Figure 4.3 :- Net Asset Value per share	53
6. Figure 4.4 :- Headline earnings per share	54
7. Figure 4.5 :- P / E Ratios	54
8. Figure 4.6 :- Earnings Yield	55
10. Figure 4.7:- AST Group Ltd & Abraxas Share price performance	59

APPENDICES

Appendix A: - Pre-merger Income Statements – Abraxas & AST Ltd

Appendix B: - Pre – merger Balance Sheets – Abraxas & AST Ltd

Appendix C: - Income Statement – AST Group Ltd

Appendix D: - Balance Sheets – AST Group Ltd

Appendix E: - Share Prices: - Abraxas, AST Ltd & AST Group Ltd

Appendix F: - AST Group Ltd & Abraxas Share performance graph

CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION

This chapter generally sets the scene for the dissertation topic undertaken. It opens with an introduction to the study topic followed by a brief discussion of the problem statement, the hypothesis, background to the problem, methodology and the research design. This topic generally describes the framework of this dissertation outlining the shortfalls and the benefits of this dissertation at the end.

1.2 BACKGROUND TO THE PROBLEM

There have been a lot of mergers and acquisitions in South Africa and the world over and the numbers are increasing on a year by year basis. Benefits from mergers are often difficult to quantify but that has not deterred merger activity in this country and the world over. Many such mergers have failed for various reasons whilst others have been a success. Do these mergers or acquisitions really enhance the value of Shareholders wealth?

The overall aim of this study is to establish whether company expansion through mergers and acquisition does create wealth for shareholders. This study will be limited to a single company and the effect of a merger or acquisition to shareholders' wealth will be investigated. This research is a critical test of theory and its applicability to the merger between AST Ltd and Abraxas Investment Holdings to form the Information and Communication Technology (ICT) giant AST Group Ltd(formerly AST-A)

Mergers and acquisitions are capital investment projects in which a business expands externally by acquiring or amalgamating with another related or non-related firm.

Motivations for mergers may be to:

- apply superior management skills,
- to obtain unique technical capabilities,
- to enter a new market,
- to achieve operating economies,

- to take advantage of tax losses

Whatever the motives of the merger the objectives of shareholders should be achieved. Like all the other projects that a business undertakes mergers and acquisitions have to be evaluated using capital budgeting techniques to ensure the venture yields the required minimum rate of return. The objective of any investment is to enhance shareholder value. Likewise logic dictates that mergers should be undertaken only if there is proof that shareholder value would not be destroyed. Has the merger between Abraxas Investment Holdings and AST Ltd created value for their shareholders?

1.3 MOTIVATION FOR THE RESEARCH

A lot of research has been carried out on the field of mergers and acquisitions and a lot of conclusions have been drawn. This research has been motivated by my eagerness to test the applicability of some of the findings and also to test if the shareholders of AST Group Ltd are benefiting from this merger. The declining share prices of AST Group Ltd ever since the merger has inspired me to investigate this company closely.

1.4 SIGNIFICANCE AND CONTRIBUTION OF THE PROPOSED STUDY

- To highlight the effect of mergers and acquisitions on shareholders wealth
- To highlight the clash / congruency between the goals of management and those of the shareholders
- To try and draw attention to shareholders with respect to the risks that they exposing their funds to by endorsing mergers

1.5. PROBLEM STATEMENT

The primary objective of a business firm is shareholder wealth maximization. Managers may not necessarily act in the best interest of company shareholders. Separation of Ownership and Control raises worries that management may pursue objectives attractive to them but which may not be necessarily beneficial to shareholders.

Acquisitions play a crucial role in the overall corporate governance system of monitoring managerial performance and thereby improving corporate efficiency.

Industry consolidation through mergers has continued to proceed in utilities, telecommunications, banking and several other industries involved in roll-up strategies albeit with little improvement on the value of the shareholders wealth.

The objective of the study is to examine the effect of a merger as a corporate investment strategy on the wealth of the shareholders.

Do mergers and acquisitions really enhance shareholder value?

1.6. OBJECTIVES OF THE STUDY

- To determine and establish what the effects of mergers and acquisitions are on the wealth of shareholders by evaluating the related merger between Abraxas Investment Holdings and AST Ltd to form AST Group Ltd

1.7 RESEARCH METHODOLOGY

The research methodology applied in this case study is discussed below

1.7.1 Sample

This study shall take the form of a case study research. As a case study of single case holistic design the study shall be focused on one particular merger case. The merger of AST Ltd and Abraxas Investment Holdings in 1999 to form AST Group Ltd has been selected through non-probability sampling methods. The Ernst and Young's Merger and Acquisition's Yearly review book was used to establish a list of merger activity in South Africa.

The criteria used for selecting this company required that both the acquiring and the acquired firm be listed on the JSE for at least 1 years prior to the merger and preference was further given to companies for which at least two years of data is available. Abraxas Investment Holdings has been listed on the Johannesburg Stock Exchange (JSE) since September 1997 until its de-listing in August 1999.

AST Ltd listed on the JSE in September 1998 until it was de-listed in August 1999 when it merged with Abraxas Investment Holdings.

1.7.2 Design and Analytical Techniques

This study is inductive and it seeks specific information therefore a single case study of holistic type is appropriate. The study is also of descriptive nature and quantitative methods shall be used to analyze data.

1.7.3 Measuring Instrument

As a case study research based on secondary data or historic material there will be no measuring instrument. Required information has been gleaned directly from the evaluated (audited) financial statements of the concerned firms a year prior to the merger and three years after the merger. Other information has been obtained from the JSE and the AST website.

1.7.4 Administrative Procedure

The procedure followed in the collection and analysis of data is described below

1.7.4.1 Data Collection

This study will be based on the information obtained from published evaluated financial statements of the concerned firms. The internet and other sources have been used to gain access to the financial statements of Abraxas Investment Holdings, AST Ltd and AST Group Ltd. Other sources included the JSE's Year book. Information on the share prices and the All share index was obtained from the JSE. Other information has been collected from financial journals.

Merged firm stock is unique in that at least one (sometimes both) of the pre-merger common stocks outstanding ceases to exist after the merger. Either the acquiring firm's common stock continues to trade after the merger or a new class of common stock of the merged company trades. Abraxas Investment

Holdings's stock and AST Ltd shares ceased to exist on the effective date of the merger and new stock of AST Group Ltd was introduced.

1.7.4.2 Data Analysis

Using quantitative methods data from the financial statements of the concerned firms shall be used to calculate the various financial ratios that are proxies for shareholder wealth measurement. Ratios such as:

- Earnings per share
- Price earnings ratio
- Share price Variations
- Relative market values
- Dividends
- Net asset value

To establish net wealth effects of mergers on the publicly traded securities of merging companies the following methodology is adopted.

The Principal method for determining merger related value changes is to generate “predicted” post-merger valuations for all securities of the merged firm and comparing them with pre-merger values.

Calculations required:

- Pre-merger valuation of each outstanding security issued of the merging firms
- Overall market movements in matching asset prices during the “event period”(two months before the merger announcement to two months after the effective date of completion.);
- Any cash distribution made to security holders during the event period
- Any changes in the number of outstanding securities in a class due conversions, calls, sinking fund payment or open-market repurchases.

Predicted values are the values of each security that one would expect if the merger were expected by the market to have no wealth effects. The cumulative change in the security's value attributable to the merger is the difference between the predicted post-merger value and the actual post-merger value.

Once the data has been analyzed, conclusions and recommendations shall be made based on the findings. These recommendations or conclusions will be compared with the available information in literature about mergers and acquisitions.

1.8 LIMITATIONS OF THE STUDY

- As a single case design study this study shall limit its focus to one company. Thus it won't be fair to generalize the information obtained from this study. Recommendations or conclusions made in this study could only be limited to the company under study
- The study shall be based on secondary or historic data (i.e. published financial statements). These statements are subject to accounting and manipulation errors. There is no way that such errors can be eliminated or avoided. Therefore the degree of accuracy of the financial statements will highly affect the quality of results that will be obtained through this study
- The prevalence of contaminating events during the merger period will also affect the results of this study. Industrial environmental changes, engagement in other mergers, company wide or industry wide factors etc may mean the results of this study are not a true reflection of the outcome of the merger under scrutiny
- The bias introduced in estimating the CAPM variables like beta, risk free rates, market returns etc for use in the valuation calculation will also further limit the validity of this investigation

1.9 CONCLUSION

The chapter has described the process and the procedure for undertaking this study. In summary the study this study needs to consider the following in the merger:

- Two companies history, organizational changes after the merger
- Type of merger: Related or Unrelated
- Merger Dates: announcement date, date of merger;

- Financial analysis:

1. Form of payment of merger : cash or share issue , prefer share issue
2. What price was paid: premium paid or not; if premium what are the implications
3. Performance measurements: Did performance improve after merger?
4. What are the benefits of merger to shareholders of both companies? Analyses to be carried out:

- Share price valuation
- Accounting data analysis

Benefits to be investigated include:

- Abnormal benefits around announcement dates(Share price variations)
- Long-term benefits: performance measurement changes as measured by changes in : EPS, ROE, P/E ratios etc

In respect of above what conclusions can be drawn about merger benefits that accrued to shareholders? What inferences can be made about shareholders wealth gains?

CHAPTER 2: - REVIEW OF LITERATURE

2.1: INTRODUCTION

Mergers and Acquisitions is the widely researched topic in the field of finance. A great deal of literature and research findings on the various aspects of this topic exists. This chapter discusses some of the major aspects of the topic and prior research findings.

2.2: GENERAL

Mergers and acquisitions have long played an important role in the growth of firms (Mandelker, 1974:303) and in recent years we have seen increasing levels of merger activity in most developed countries. Numerous theories have been developed to explain this trend:

- Tax considerations
- Inefficient management of target companies
- Synergy

Other Reasons for mergers

- Operating economies: Mergers lead to lower unit costs through higher production runs. Horizontal mergers are normally based on this principle
- Managerial skill
- Tax considerations
- Use of excess liquidity
- Diversification
- Lower financing costs
- Replacement costs: If the cost of target is less than the market value of the assets. Then a company is prone to acquisition.
- Technology

Shareholders invest their money with the hope of getting a sustained flow of cash in the form dividends over a long time horizon. Maximizing shareholders wealth basically means maximizing the flow of dividends to shareholders through time. There is a long term perspective. For a listed company the dividends to shareholders are represented in the share price of the company assuming an efficient market. Thus on the assumption of an efficient market pricing we may take the current share price as a measure of shareholder wealth. This implies that if the merger is beneficial to the shareholders then the share price of the company will rise. Otherwise dividends will fall and the share price will drop.

However due to the problem of “managerialism” there is usually a shift away from the main objective of the organization into maximizing the firm’s assets, sales, number of employees, size and growth of business activity none of which enhances the value of the shareholders wealth. Thus some companies engage in mergers without having established what their effects on shareholders value would be but only for the want of growth or size. But sometimes sales and growth maximization in the short term may be consistent with profit maximization in the long run.

A number of studies have been conducted in the field of mergers and acquisitions. Prior research findings indicate that large companies are the major culprits of wanting to maximize size at the expense of shareholders’ wealth. Big companies engage in a number of non-lucrative takeovers because of their excess liquidity but end up destroying shareholders value.

Mergers are mainly seen as being vehicles for reducing production costs through the attainment of economies of scales and improved efficiency through improved management skills. This normally translates to being a benefit to the society as goods come out cheap and with improved quality. However mergers may also be viewed as being detrimental in that they promote monopolies with big powers to fix prices which might be a big disadvantage to the society.

On the human resources side mergers have been known to come with big job losses which, is not good news for employees. As the two companies come together and fuse operations, overlapping functions are eliminated and this implies excess staff is shed off but with severances packages to go with. However on some occasions the increased competitive strength of the merged entity saves jobs and creates more.

Directors of the acquiring firms are reported to gain power and status over the other directors (acquired firm) who are normally retrenched with big pay packages. The directors of the acquiring also receive increases on the remuneration packages.

Generally mergers have mixed outcomes and their success depends so much on the management skills of both companies.

Mergers and Acquisitions are the most intriguing fields of study in corporate finance. A number of studies have been carried over the years and such studies continue but none such has yielded conclusive results when it comes to the issue of wealth creating effects of mergers. Mergers and Acquisitions represent corporate investment decisions and like all other investment need to be appraised using available capital budgeting techniques. The value creating or value destroying effect of a merger is important to any manager. There are basically three merger outcomes:

- A win : - if the merger results in net increase in investor wealth
- A loss : - if there are losses incurred in investor wealth
- A draw : - if there are no significant changes in investor wealth

It has been established through prior research that wealth effects are not the same for all security holders. Prior research indicates that acquired firm's shareholders are the largest beneficiaries of the corporate mergers. All benefits accrue to the acquired firm's shareholders at the expense of the acquiring firm's shareholders. In conglomerate mergers bondholders could experience wealth gains at the expense of stockholders.

However it is also reported that shareholder wealth creation or destruction is a function of the degree of similarity or “relatedness” between merging companies. The

degree of similarity or “relatedness” between merging firms also determines the distribution of net wealth gains or losses between security holders (Lance A Nail, et al : Journal of Applied Corporate Finance). Significant wealth increases to the acquiring firm's security holders result from mergers of “related” companies by contrast conglomerate mergers tend to add little value to security holders as a group and appear to be a fairly reliable way of reducing the acquiring firm's shares.

More recent studies on the financial performance of conglomerates have established new evidence that diversified companies' trade at a discount in value relative to single business unity. This evidence further questions the rationale of corporate expansion through mergers and acquisitions as value is obviously destroyed in the process.

Mergers and Acquisitions play a major role in the growth of individual firms and the economy as a whole. M&A assist companies in the optimal allocation of resources to those managers and firms best able to utilize the resources in a productive manner.

This hence results in benefits for all of society. In South Africa a considerable degree of merger activity has been recorded in the recent years. This has been complimented by another form, conglomeration that happens when two unrelated firms combine or merge.

Advantages that results from conglomeration have been listed as:

- Financial gains from improved earnings per share(EPS) for the acquiring firm (Brigham & Gapenski, 1945)
- Synergy in the general management function(Copend & Weston)
- Risk reduction through diversification(Breaty & Myers)
- The reduced risk of financial distress with its accompanying benefit of cheaper debt(Lewellen)
- Easier access to the capital markets results from the increased size of the corporation(Levy & Sarnat)

The above justifications have been proved by Breaty & Myers in their latest research that the above justifications are not universally valid and that they may be a disadvantage in many conglomerate mergers. Myers & Breaty have shown that improvements in EPS without any other efficiency or synergistic benefits will not result in improved shareholder wealth.

Galai & Masulis(1976) have also shown that in the absence of synergy, the reduction of financial risk and cheaper debt do not materialise. Galai and Masulis have proven that its actually the bondholders who benefit at the expense of equityholders due to a reduction in financial risk.

2.3 Conglomerate vs Non-Conglomerate Mergers

Under some conditions the value of equity in the merged company may be larger than the sum of the equities in the two pre-merger firms even in the absence of synergy (Ganstri). Agency theory tries to explain the benefit of conglomerate mergers to the shareholders of the acquiring company (Jensen & Meckling, 1976). Agency theory states that:

- A problem arises when managers own only a fraction of the firm. This may cause them to act in their own interest at the expense of shareholders interest
- Compensation arrangements in the market try to overcome this problem but still the existence of other incentives force managers to enter conglomerate mergers even in the absence of synergistic benefits

Managers' compensation is a function of the size of the firm they control and therefore they are naturally motivated to increase the size of the corporations they control. Managers also undertake conglomeration for their desire to diversify in order to reduce their indivisible personal employment risk.

Studies in the US on mergers have been based on:

- Accounting performance and other operating characteristics

- Conglomerate performance in terms of stock market performance

Accounting performance studies focus on:

- ROA
- EPS
- Total Assets
- Debt Capacity, etc

Conglomeration results increased ROA (Weston & Masingha) while EPS has been proved not to increase despite an increase in the total assets (Reid, 1968).

Stock market performance studies contrasts conglomerate stock performance against that of mutual funds. On average conglomerates earned higher returns than non-conglomerates (Weston Smith & Schriches, 1972).

Evidence has been presented that conglomerates have both higher accounting returns and stock market returns but results in the South African context have proven that conglomerates in SA have basically under performed non-conglomerate companies in terms of both basis of measurements (Affleck Graves). Affleck Graves concluded that conglomeration per se is not in the long interest of South African shareholders. Why then does company growth through conglomeration continue to be a major feature in the South African economy? Possible answers:

- Agency theory and many other reasons already mentioned
- Conglomeration can result in both non-financial and financial benefits to managers. This serves as a clear motive to increase the size of their companies. This may be done to the detriment of common stockholders.

Companies compete for the most efficient managers in the open labour market place. High compensation is paid to attract the most efficient managers to the corporation. Managers are generally given leeway to increase firm size as a way of compensation.

Shareholders expect to recoup their benefits in the long run by way of increased stock market returns.

2. 4 Theories of Mergers and Acquisitions

Academic studies have shown that the likelihood of a successful acquisition is less if the acquirer makes a diversifying acquisition and greater if the acquirer “sticks to the knitting” and focuses on targets in related industries. In mainly a diversifying acquisition sound business and financial advice is imperative to the acquirer.

In the 1960's and 1970's Portfolio theory has been used to explain how mergers affect security values. Using the portfolio theory and viewing the corporations as portfolios of business units it can be concluded that a conglomerate merger results From combining businesses with less than perfectly correlated cash flows. Such cash flows are less volatile than single business corporations and the risk is lowered. The risk associated with this corporate diversification can be theorized to create value through “financial synergy” i.e reducing the borrowing costs derived from diversifying conglomerate mergers.

Another theory developed in the 1970's questions the creation of value through financial synergy and conglomerate mergers. New thinking in the 1970's suggested that wealth could be created through operational synergy i.e an increase in operating efficiency due say to economies of scales or scope or to elimination of redundant resources. Operational synergies are expected to be a positive function of the degree of similarity between the merging firms' businesses. Thus the operational synergies are expected to be greatest in mergers of corporations in the same or similar line of business.

This theory also suggests that if there are no operational synergies from the combination, then there would be no net increase in the wealth and hence any gains experienced by any group of security holders must be a result of losses incurred by another group. In such cases then there is no creation of wealth but there is mere redistribution of it.

2.5 Analysing Acquisition Strategy

There are three acquisition strategies used

Management replacement:- transaction in which the top management(CEO) of the target firm changes. In essence an acquisition changes overall management structure but not replacing the target managers themselves. Realisation of synergistic gains does not require changing managers. Acquiring firms may not necessarily change target management as the strength of the incumbent management team may play a major role in the conclusion of the acquisition deal. In contrast an acquisition may be taken as a way of replacing management teams that do not act in the best interest of the shareholders. Managers may be inept or they may be no strong enough incentives to motivate them to work towards shareholder goals. Studies have been undertaken to confirm the fact that replacing target management is typically necessary to achieve above-average operating performance.

- Industry consolidation occurs when generally the number of firms in the industry is shrinking. Typically these are transactions in which economies of scale in production are of paramount importance in the achievement of success.

Economies of scale are driven by:

- Lower cost technology
- More efficient industry distribution channels
- Or other changes in the market place.

Operating synergies are not necessarily dependent upon the merged firms being in the same industry. Technological changes or market structure changes can create operational efficiencies that are not subject to standard industry specifications / classification

The common characteristic of the acquisitions is that they typically result in a consolidation of the target industry as assets are redeployed.

- The Growth resource imbalance covers transactions in which the post acquisition firm has capital expenditure rate (as a percentage of revenue) higher than that of the combined target and acquirer in the years before the merger. This is probably due to synergy that results from combining firms. Acquirers normally purchase

targets with huge growth prospects but limited financial or managerial capacity to capitalise on this potential.

Executing an acquisition or merger is a three stage exercise starting with:

- Determining an acquisition strategy. This involves deciding on which industries and types of business should be acquired and how much cash should the company pay for such acquisitions
- Screening and evaluating potential candidates
- Implementing and integrating an acquisition

The starting point of any acquisition programme should be a review of corporate objectives and product-market strategies for various strategic business units, (Rappaport, 1979: 100). This involves in essence an appraisal of corporate business objectives, areas of future growth, corporate strengths and weaknesses and an analysis of the corporate environment within which the organisation operates.

Rappaport(1979) further asserts that companies that don't have a set acquisition strategy are less successful than those that have an acquisition programme to follow. Acquisition strategies are normally formulated to be consistent with overall corporate strategy. Once an organization has made a decision to grow through acquisition or merging with another company then an acquisition strategy is formulated and implemented rigorously.

Many companies prefer to grow through the mergers and acquisition route as they assert "it's cheaper to buy than to build" and also for reasons of having extra cash flows.

Four basic questions to be considered before concluding a deal are:

- Cost : What will the acquisition costs be
- Market value: What is the fair market value of the target

- **Return:** What is the target worth to the prospective buyer? Or what is the maximum price that an acquirer can pay and still achieve the desired rate of return on its investment
- **Risk:** What is the probability of achieving the expected return

Financial theory asserts that an investment is “sacrifice of present consumption for the hope of future gain”. There is an opportunity cost attached to an investment.

Acquisitions and mergers are no different, by acquiring the target company's ordinary shareholders the acquirer hopes that over time this asset will provide an acceptable return. The biggest question to be considered by any acquirer is “what return on investment is required from a potential target?” Return is function of risk and therefore depends on the risk profile of the target. However the more the riskier the investment the more return is expected.

2.6 Paying an Acquisition Premium

When a merger or acquisition is concluded there is always a premium paid by the acquiring firm included in the deal price. This premium is always based on the acquirer's expectations of making improvements in the target firm's future performance and the hope to exploit other synergies between the firms. An acquisition only begins to create value for the shareholders of the acquiring firm when performance gains above stand-alone expectations are large enough (in present value terms) to recapture the premium paid.

One area of study that has lagged behind is the investigation on the premium paid(or price) tendered to the acquired company's shareholders. Affleck-Graves, Burt and Cleasby studied:

- Average premium paid on acquisitions in South Africa
- Methods of finance and the predominance of one over the other e.g cash or stock

Tender offer often happens when one company bids for the controlling effect of another. This is done in the hope that there will be synergistic benefits to be derived from the transaction expressed mathematically as:

$V_{ab} > V_a + V_b$ where V_{ab} is the market value of the merged firm, V_a is the Market value of company A and V_b is the market value company B. It is assumed that a merger will add value with the merged firm being worth more than the sum of the two individual firms. The overall synergistic benefits G_0 are measured by the equation below:

$$G_0 = V_{ab} - (V_a + V_b)$$

If PP is the price paid by the acquiring firm and G_t is the premium paid then

$$G_t = PP - V_b$$

$G_0 - G_t$ provides a measure of the benefit of the merger that accrues to the stockholders of the acquiring company.

Acquisitions are a capital investment decision that shareholders of the acquirer can essentially make on their own – just by buying shares of both companies without paying a premium or integration expenses. Unlike other investment decisions acquisitions are unique in that they require paying all the money up-front, including acquisition premium, even before synergistic improvements can begin. Paying an acquisition premium in itself creates a big challenge. Achieving performance gains above those already reflected in the share prices of the two stand alone firms is big business problem.

When no performance improvements are expected to result from the acquisition or merger deal the performance of the post-acquisition firm can be forecasted by simply adding the performance expectations of the two stand alone firms. An acquisition premium is a promise of performance above those already expected by the market. It is however difficult to get an appropriate measure of performance and also given the measure, the assessment of stand alone expectations at the time of the acquisitions is not easy.

Companies with high P/E ratios attract larger premiums as they promise large growth prospects. Average premium paid in South Africa has been established at 32 – 44% and it is comparable to the one found in the New York and the London stock exchanges.

Cash payment is the most popular method of paying for merger transactions in South Africa. The premium paid to an acquirer also depends on the relative size of the target company viz a viz the acquirer. The larger the target relative to the acquirer the greater the premium on acquisition.

2.7 Does Company Performance improve after an Acquisition / Merger?

Previous research in mergers and acquisitions have found mixed results for pre and post merger returns for bidding firms while findings for target firms show positive abnormal returns around announcement dates.

Evidence that would allow us to determine whether post-acquisition operating performance gains are actually achieved is still inconclusive. Many questions have been raised concerning the post – acquisition performance

- Do acquisitions produce the “real business” gains that appear to be anticipated by the stock markets at the time of the announcement? The answer is “yes” on average. However there is generally a lack of a benchmark against which “operational improvement” can be measured
- Are the prospects of post-acquisition operating gains better for certain acquisition strategies than for others? In other words are acquisition gains the result of operating synergies, better management or some other factors?

Other popular acquisition theory is that some firms are more valuable under the direction of a new management team. Studies have been concluded to prove that when the target management team is completely replaced by new management acquisition had significantly better post-acquisition operating performance than when the old management was retained.

Evidence on the effects of acquisitions yields mixed results. Many studies have documented significant share price gains (on average) at the time of acquisition announcements, with the lion's share, if not indeed all of the wealth accruing to the

target firm's shareholders. These wealth gains are often cited as evidence of the financial market's anticipation of post-acquisition improvement.

But despite the notable announcement wealth gains to shareholders evidence of performance (post-acquisition) is still inconclusive. The difficulties in management integration and the inability to achieve planned synergies have been cited as the reason.

Some stock price studies of takeovers indicate that bidders generally break even and the combined equity value of the bidding and target firms increases as a result of takeovers. These increases are attributed to some unmeasured source of economic gains such as synergy. But researchers have been unable to link equity value gains to improvements in corporate performance. This implies equity value gains could be due to capital market inefficiencies, arising simply from the creation of an overvalued security. Studies have been undertaken on failed mergers to determine if equity value increases are from real economic gains or capital market inefficiencies but the results have been inconclusive. Evidence from unsuccessful mergers indicates that anticipated premiums are not normally achieved by the fall of post merger stock prices to their pre-offer prices.

Stock price studies are therefore inconclusive on their own in determining real economic gains as such gains in stock prices may be purely due to market mispricing. Stock price studies are generally unable to provide evidence on the source of any merger-related gains.

Gains from mergers could result from a variety of sources such as operating synergies, tax savings, transfers from employees or shareholders or increased monopoly rents. Accounting data are therefore generally ideal for testing post-merger performance. Accounting data are however imperfect measures of economic performance as they can be affected by managerial decisions. Thus the free cash flow methods as a

measure of economic performance are preferred as they mitigate the impact of the financing of the acquisition and the method of accounting for the transaction.

Industry performance is used as a benchmark to evaluate post-merger performance. Post-merger improvements in operating cash flow returns explain a significant portion of the increase in equity values of merging firms at the announcement of the merger. This suggests that the stock price reaction to mergers is driven by anticipated economic gains after the merger.

Pre-tax operating cash-flow returns on assets are normally used to measure improvements in operating performance. Cash-flows represent actual economic benefits generated by assets. Operating cash-flows are defined as sales minus cost of goods sold and selling and administrative expenses plus depreciation and goodwill expenses. The method is unaffected by the method of accounting for the merger (purchase or pooling accounting) and the method of financing (cash, debt or equity)

The purchase accounting method restates the assets and liabilities of the target and the bidding firms at their current market values. No such revaluation is permitted under the "pooling" method. Further under the purchase method the acquirer records any differences between the acquisition price and the market value of the identifiable assets and liabilities of the company as goodwill and amortises it. No goodwill is measured under the pooling funds method. The purchase method consolidates results of the target with those of the acquirer from the date of the merger whereas the pooling of funds method consolidates results for the two firms from the beginning of the year regardless of when the merger actually took place. The same transactions therefore typically result in lower post merger earnings under purchase accounting than under pooling of funds accounting method. It is therefore misleading to compare post and pre-merger accounting rates of return for firms that use purchase accounting to infer whether there are economic gains from mergers. To avoid the effect of accounting method cash flow performance measures are used as they exclude depreciation and goodwill effects. Performance measurement can be further enhanced by the exclusion of the first year results after the merger.

Post merger performance may be affected by means of payment for the takeover. Relative size of the acquirer to the bidder also plays a major role in post acquisition performance. The presence of competition from other bidders and opposition from the incumbent management of the target may push the price of the merger up. Poor performance therefore results to the extent that share prices reflect disappointment with the performance of an acquisition.

A number of studies indicate that acquirers exhibit significant under performance after a merger. This issue has been unresolved because of methodical problems and conflicting results on prior research.

Merger activity has been high in recent years thus warranting large interest in the topic of mergers. Large body of researchers has dealt with abnormal returns realized by shareholders of the acquiring and target firms. Risk profile of the merged company has received less focus from researchers. Risk profile can be estimated by a measure of the company beta. Beta of a merged firm can be estimated from the betas of the pre-merger firms. This beta is compared against the actual beta measured after the merger and according to recent research there is always a shift in the value of beta signaling a change in the systematic risk of the company.

Acquisition of another firm by another will almost certainly lead to a change in the financial and intrinsic structure and thus beta of the company. This change is a function of:

- The absolute difference in pre-merger beta's of the acquiring and the acquired firms
- Market capitalization of the acquiring firm
- The degree of conglomerated-ness of the merger
- The ratio of the long term debt to total assets averaged over a period before and after the merger, etc

In their study Barr and Van der Horst tried to explain shifts in the systematic risks which the markets can not detect. Mergers always involve some debt restructuring and this may confound any analysis based on equity beta even further. Barr and Horst used ungeared/ intrinsic betas (beta with debt removed) in their study. The univariate tests showed that there are unexplained (according to capital market theory) shifts in beta due to a merger. This supports a major shift in the riskiness of a company and therefore its ability to attract finance.

2.8 Measurement of Post Acquisition (Or Merger) Performance

Measurement of post acquisition performance is not an easy exercise. Below are detailed research findings on this topic.

2.8.1 General

Mergers and Acquisitions remain the most popular method of corporate growth of this generation's executive teams with thousands of billions rands worth of such transactions in the past years. But there is little evidence if any that such transactions have benefited the shareholders of the acquiring firms. Study after study suggests that the lion's share of gains accrues to the target company's shareholders and that the acquiring firm's shareholders should consider themselves lucky to break even. Measurements are now there to prove that acquisitions generally fail to add value to the acquiring firm's shareholders but measuring the actual operating synergies remains grossly unexplored.

Unlike many other capital investment decisions that are spread over time such as R&D or advertising campaigns Acquisitions and Mergers are management decisions whose impact on shareholder value is assessed immediately by the markets around the world. Mergers and Acquisitions are discreet in nature. This implies two stand-alone entities are suddenly transformed into a single company providing an exciting challenge to measure performance issues. Shareholders experience a wide distribution of wealth changes when acquisitions are announced.

Analysing or appraising Mergers and Acquisition is not an easy exercise. It entails forecasting and evaluating post acquisition operating performance and contrasting it with pre-acquisition measures of operating performance to justify investment. Corporate practitioners and researchers are busy trying to develop a model that can accurately forecast future levels of annual operating performance. The current lack of such a model has often led to wrong investment decisions and hence the prevalence of many failed mergers and acquisitions transactions.

Stock-swap mergers offer an ideal opportunity for wealth creation and wealth redistribution. Unlike other kinds of mergers there are no cash out flows or asset changes. For this reason if the merger itself has no effect on the market's assessment then the market value of the newly merged company should equal the sum of the market values of the two merged companies' securities (adjusted for overall market movements in the financial assets values) just prior to the announcement of the merger. This in turn implies if the market expects either financial or operational synergies then net wealth created would be measured directly as the increase in the summed market values of the combined firms's securities.

Stock market response to acquisitions and mergers announcement has been used to measure the viability of the deal. However many strategists have questioned the validity of these shareholder returns as predictors of long run performance of a merger. Michael Porter has argued that short-term market reactions are likely to have little long-term significance on the performance of a merged entity. Thus the researchers and practitioners need find a way to correctly assess the validity of market changes to determine whether investors correctly anticipate the long-run effect of acquisitions on shareholder value.

Researchers Stephen O'Byrne and Sirowa (1996) tried to develop a benchmark for measuring post-acquisition market values of both companies and the acquisition premium in order to determine future levels of annual operating performance levels. These researchers recommend the use of a value-based methodology to

predict future levels as opposed to dependency on market reactions to merger announcement.

Financial researchers have typically used either stock returns or accounting returns independently to assess the performance gains resulting from an acquisition. Most recent studies on stock returns of acquiring firms have focused on either short-term (2 days to six months surrounding the announcement date) or long term (one to five years) price movements. The results of such studies including accounting based studies are remarkably consistent in that virtually all seem to show negative average returns to the acquirer.

Studies have also been undertaken to determine if the market's immediate response to an announcement of an acquisition can be used as a predictor of future long performance of the company. Results of such studies have indicated that the market's immediate response to the announcement of an acquisition provides an "unbiased" forecast – that is neither too pessimistic nor too optimistic on average – of long run effect of the acquisition on the acquiring firm's value.

Accounting based methods of measuring post-acquisition performance have serious problems. Some studies use ROS or ROA making it difficult to compare results as it is not clear which accounting results to use. Furthermore compounding this problem are "distortions" of economic performance introduced by several accounting conventions such as purchase accounting's amortization of goodwill which in turn lead to different interpretations of performance.

When the buying company's management pay a premium to the acquired firm's shareholders they implicitly promise their own shareholders that post acquisition performance would be improved, but the biggest question has been by how much to justify the premium. This further underscores shortcomings of using past accounting performance as a benchmark. Past performance is irrelevant and acquiring firms do not purchase past performance, but they combine two entities each with existing performance expectations after paying a premium to the

shareholders of the selling firm. In so doing they allocate capital to an investment that has an opportunity cost.

Stock prices reflect expectations of future performance and thus they are an important measure of post-acquisition performance. Shareholders of a firm contemplating an acquisition can buy shares of both the acquiring and the acquired company on their own. This implies that an acquisition should only be made only when performance gains or synergies are improvements in performance over and above what is already embedded in the security prices of the two independent companies. When an acquirer makes an acquisition the past essentially becomes irrelevant. Companies with a good past can will lose market value if they fail to meet market expectations.

There generally two approaches for the analysis of post-acquisition performance:

- (1) Share price analysis
 - (2) Analysis of operating performance
- Share Price Analysis: - Measures the long term impacts of the acquisitions by comparing the combined firm's post-merger share price returns to some benchmark return based on beta risk and / or broad market indices. If the future benefits from the acquisition are correctly assessed by the market then the post-acquisition share price performance should equal (on average) the benchmark return. Empirical studies on share price performance have shown that post-acquisition share price performance is often sub-standard, suggesting that anticipated are not necessarily accomplished. There is also very little evidence on whether any operational gains materialize. Such gains are oftenly linked to acquisition strategies.
 - Post acquisition operating performance is measured from reported financial and accounting data of the acquiring or merging firms. The advantage of this approach as a performance measure and benchmark that are not directly dependent upon the current market price and therefore reduces the impact of

the market's continued re-evaluation of the future which is likely to include the effect of non-acquisition related events.

Developing a post acquisition performance benchmark from accounting data is difficult because of the many biases that can lead to distortions. A measurement benchmark that uses cash flows is therefore recommended as it avoids distortions that may be introduced by the accounting methods in the treatment of depreciation, amortisation of goodwill, interest and taxes.

Mergers and Acquisitions is the most researched finance topic but some basic issues still remain unresolved. Most empirical studies look at daily stock returns surrounding announcement dates while other look in passing at the long run performance of acquiring firms after the mergers. Results of these studies indicate significant negative returns to stockholders of acquiring firms over one to three years after the merger. Recent studies however tend to contradict this general conclusion. Problems with prior studies are that they never adjusted for firm size effect. Adjustment for firm size effect is necessary in studies of long run performance. Acquirers are usually larger firms in studies of mergers. Beta has always been ignored as well, especial its fluctuation on a month to month basis. This creates a significant bias in the measurement of performance (abnormal returns) over a long period.

Research on mergers examines returns surrounding announcement dates in order to infer wealth effects of mergers. This approach implicitly assumes that markets are efficient, since returns following the announcement are ignored.

Studies focus on two dates:

- The date when the stock exchanges first mention a bid involving the acquiring firm and the date when the firm is delisted
- Two dates referred to as the announcement date and the completion date respectively.

2.8.2 Performance Benchmark

Pre-merger performance of the target and bidding firms is used as a benchmark and compared against the post-merger performance. This provides a measurement for change in performance. But some of the difference between pre-merger and post-merger performance could be also due to economy-wide and industry factors, or to a continuation of firm specific performance before the merger. Therefore abnormal industry adjusted performance is measured as the primary benchmark to evaluate post-merger performance.

2.8.3 Cash Flow Return Performance

Pre-tax operating cash flows for the target and acquiring firms are aggregated to determine pro-forma cash flows for the combined firms in each of the five years before the merger (year –5 to year –1). Post merger operating cash flows are the actual values reported by the merged firm in year 1 to 5.

The merging firms' performances are also adjusted for the impact of contemporaneous unrelated events by measuring industry cash flows during the same ten year period. Year 0 is normally excluded from the analysis for two reasons:

- Many acquiring firms use the purchase accounting method implying that in the year of the merger the two firms are consolidated for financial reporting purposes only from the date of the merger. Results for year 0 are therefore not comparable across firms or industry.
- Secondly year zero figures are affected by one-time merger costs incurred during that year, making it is difficult to compare with results for other years.

The improvements in cash flow returns in the post-merger period can arise from a variety of sources. These include improvements in operating margins, greater assets productivity or lower labour costs. Alternatively they may be achieved by focusing on short-term performance improvements at the expense of the long term viability of the firm.

Although there is some evidence that post merger gains come at the expense of labour, reduced labour costs do not significantly increase firms' cash flows. And there is no decrease in capital outlays and R&D expenditures after the merger indicating that merged firms do not reduce their long term investments

Two Questions:

- Are the increases in cash-flow returns and asset productivity caused by the merger or would they have occurred anyway without it? Mergers can lead to increased asset productivity if sub normal policies pursued by the target or the acquirer before the merger are eliminated or if they provide new opportunities to use existing resources of the merging firms. In contrast if the merger arises from undervaluation of the target firms by the stock market cash flow returns will improve whether or not there is a merger. A premium is paid by managers who anticipate cash flow improvements.

Previous studies (P Healy et al...) indicate that merged firms have significant improvements in operating cash flow returns after the merger, resulting from increases in asset productivity relative to their industries. These improvements are particularly strong for transactions involving firms in overlapping businesses. Post-merger cash flow improvements do not come at the expense of long-term performance, since many firms maintain their capital expenditure and R&D rates of expenditure relative to their industries after the merger. There is also a strong positive relation between post-merger increases in operating cash flows and abnormal stock price returns at merger announcements, indicating that expectations of economic improvements explain a significant portion of the equity reevaluations of the merged firms.

Ruback and Jensen in their study of mergers observed that abnormal stock price returns during takeovers overestimate the future efficiency gains from mergers.

2.9 Mergers and Acquisition Activity in South Africa

Like in other countries mergers and acquisitions are the most common strategy to achieve corporate growth objectives by South African companies. Many have however failed to meet expectations with gross human and financial costs (implications). Only one in nine mergers succeeded in the UK, Farrant (1970). Jacobs (1984) further asserted that 70% of all mergers fail to meet expectations with one third ending up in divestment or liquidation.

Swain (1985) concluded that one in five acquisitions were successful. This further reinforces the fact that growth through mergers and acquisitions is a very risky corporate strategy.

2.10 Why Do Mergers and Acquisitions Fail

Conglomeration as a form of strategy has long been proved to be a failure. The reasons are simply that the acquiring company normally lacks the management skill, knowledge and experience to manage the acquired business.

“Conglomerate enterprises rarely, if ever, bring any relevant managerial or marketing skills to the enterprises they acquire, for the simple reason that they have no direct knowledge of these unrelated business” (Reich, 1983:146)

Corporate growth through mergers and acquisitions can either be a viable strategy or a road to ruin. A systematic, structured and planned approach to the whole process of creating wealth through mergers and acquisitions can ensure viability and success. To be successful mergers and acquisitions must increase the present value of the owners' interest in the firm (Hogarty, 1970)

Successful mergers do not just happen but they have to be skillfully managed and guided. An unprofessional or “ad hoc” approach to mergers and acquisitions is likely to result in disaster for all parties involved.

For mergers to succeed

- Make sure cultures are compatible
- Have a viable integration plan: Paying the right price on itself is not enough. The acquirer must have a viable integration plan. Planning is absolutely essential for correctly valued target.

Plan to integrate as quickly as possible to maximize the savings and opportunities that were identified in the analysis to justify the acquisition price paid.

Chances of success through corporate mergers and acquisitions are very slim. A number of studies have been carried out to establish why. Kitching(1967) listed a number of reasons:

- Size mismatch :- target's sales need to be within 2% of the acquirer for success of the merger
- Breakdown in reporting relationships or restrictions on optimal autonomy
- The absence of “ managers of change” in the acquiring organisation to catalyse and implement the transaction
- The failure to formulate and abide by a set of acquisition criteria consistent with overall strategy
- Adhoc reactive responses to proposals

Levinson (1970) ascribed major reasons for failure to psychological reasons, including fear and anxiety on the part of the employees of the acquired firm and condescending attitudes on the part of the acquirer's management. Many other reasons include:

- Overhasty consumption
- Cultural (organisational) mismatch
- Inadequate evaluation and insufficient implementation planning

- Inadequate resources to manage change

2.11 Who Actually Gains From A Merger

Prior studies have indicated that shareholders of acquired companies enjoy significant positive abnormal gains on or before the announcement of the merger bid. Significant negative gains have been reported to accrue to shareholders of the acquiring firm in the long run (Barnes, 1984). There is no conclusive evidence of positive abnormal gains being made by the shareholders of the acquiring firms as a result of merger announcement whether the merger bid succeeds or not (Halpern and Mandelker, 1974)

In South Africa there has been little quantitative research examining merger activity on the JSE. Mergers and Acquisitions that took place during the 1960's and the 1970's passed virtually undocumented with very little or no studies to examine the effects of merger activity on the share prices of both the acquiring and the target company.

In a recent study, Affleck Graves and others examined the effects of the merger on the share price performance of South African companies on the JSE. The objective of the study was to:

- Assess whether merger and acquisitions are associated with any abnormal positive or negative stockholder returns and if so how these returns are shared between the shareholders of the acquiring and acquired companies
- Whether the JSE is efficient with respect to merger announcements

In their study Affleck and others concluded that:

- Shareholders of the acquired companies experience abnormal positive returns immediately prior to the announcement date. Results are consistent with the results from the NYSE (e.g Halpern, 1973; Mandelker, 1974; Langetieg, 1978)

- Gains to the acquired companies appear to be experienced from approximately 10 weeks prior to the announcement, whereas Mandelker(1974) and Langetieg(1978) observed the gains from 7 and 6 months respectively.

The reasons why the acquired companies experienced such gains before merger announcement have been sketchy. Some possible reasons:

- Insider trading or information leakages possible causes
- Accurate appraisal by investment analysts
- Anticipation by the markets

Shareholders of the acquiring firms do not benefit by the merger activity in the short term.

Measurement of conglomerate performance is done by contrasting the stock market performance of a company against industry performance over a five year period. A study by Affleck Graves on the performance of conglomerate companies on the JSE established that on average the conglomerates significantly under perform non-conglomerates. This is consistent with the view of that conglomeration is usually in the interest of management rather than in the interest of the shareholders

On average stockholders of acquiring firms suffer a statistically significant loss of about 10% over the five year post merger period (Aup Aawal, etal , 1972). This evidence suggests that neither the firm size effect or beta estimation problems are the cause of the negative post-merger returns.

It is often claimed that conglomerate mergers are less likely to succeed because managers of acquiring firms are not familiar with the target industry or they waste free cash flow on bad acquisitions (Jensen, 1986)

Two hypotheses

- Market adjusts fully to merger news at the time of its announcement and the subsequent under performance is because of unrelated causes

- Markets are slow to adjust to the merger announcements. This implies the long run post merger performance would reflect that part of the net present value of the merger to the acquirer not captured by the announcement period return. This is inconsistent with market efficiency theory and contradicts much of previous research on mergers based on announcement period returns.

There has been considerable interest in mergers and acquisitions in recent years. Studies in South Africa have been conducted by Affleck-Graves and others (1987) on:

- Benefits that accrue to shareholders of both acquiring and acquired firm's shareholders and the distribution of such returns around the announcement dates and in the long run.

Overall mergers should have positive net present values. Jensen and Ruback conclude in their research that both set of stockholders benefit from mergers. They further assert that:

- Target firms' shareholders on average earn 29% abnormal returns
- Stockholders of bidding firms on average earn between 2 –7% abnormal returns in the case of tender offers but do not earn abnormal returns significantly different from zero in the case of mergers. These results have been based on companies in the United States

In tender offers the stockholders of the target firms are approached directly whereas in mergers negotiations start with managers of the target company who then proceed to inform their stockholders for approval.

Studies on British Companies revealed that target companies stockholders earned abnormal returns about 38% while the stockholders of the acquiring firms earned small positive abnormal returns prior to the announcement but negative abnormal

returns of 4.5% within 24 months after the merger (Firth, 1979). All these results focus on share price movement around the date of the merger announcement.

Affleck-Graves, Flatch and Jacobson (1987) found that in South Africa stockholders of the target companies earned substantial positive abnormal returns of 20% in the 13 weeks prior to the merger announcement. No evidence was found for abnormal returns accruing to the shareholders of the acquiring companies.

In the prior studies it has been established that the stockholders in the target companies experience on average highly positive abnormal returns prior to the announcement of the takeover or merger. It has however not been conclusively been established whether this is due to:

- Anticipation
- Leakages(information)
- Insider trading or some other factors

Such gains are experienced up to six months prior to the merger.

Merger information is already impounded in the price (either as a result of leakage, insider trading or anticipation). Therefore it is not sufficient to assume that the premium on acquisition is simply the difference between the offer price and the quoted price of the stock immediately prior to the announcement of the merger.

Debate over merits of takeovers continues as mergers and acquisitions continue to be a major feature of many economic activities in many countries. Positive returns around announcement dates reflect optimistic expectations that fail to be realised.

Rensen and Ruback(1983) found that in twelve months after merger average returns are –5.5%. This contradicts market efficiency theorems and suggests stock price increases during announcement overestimate the future gains from mergers. These

findings are supported by Franks, Harris & Mayer (1988) in their study of US and UK mergers between the years 1955-1985.

Significant target price increases around the takeover announcement date have been reported (Jensen & Ruback(1983), Jarrell, Brickely and Netter(1988) and Franks & Harris(1989).Target gains are higher in all cash bids than in bids using all equity or mixture (J. Franks, etal(1991). All equity bids show significant bidder losses, likely reflecting downward revaluation of the bidder's assets-in-place. Bids that are either contested or opposed also lead to significantly higher target gains (J Franks (1991))

This study shall investigate whether investors could have earned abnormal risk-adjusted returns by purchasing the stock of acquiring firms subsequent to the takeover (Post merger performance study). Abnormal gains around announcements date can not be depended upon as estimates of the gains from merging.

2.12 CONCLUSION

As can be seen above a lot of money and time has been invested in research on the topic of mergers and acquisitions. Research by a number of different people has yielded similar results across the globe. However a lot of divergent results have also been reported on a number of aspects of this topic and therefore there still exist uncertainties and contradictory findings especially on the benefits of mergers and acquisitions to shareholders. The purpose of this study is to establish if the shareholders of both Abraxas Investment Holdings and AST Ltd benefited or not in the merger of these two companies in 1999 to form what is now known as AST Group Ltd. These findings are contrasted against the research findings that already exist in literature and are contained in this chapter. Work on this issue is contained in the following chapters after this one.

CHAPTER 3: AST LTD / ABRAXAS INVESTMENT HOLDINGS MERGER

3.1 Introduction

This Chapter discusses the merger of the two companies: Abraxas Investment Holdings and AST Ltd. It begins by looking at the two companies individually, their history and performance prior to the merger. The chapter then discusses the rationale for the merger, the nature of the merger and other pertinent issues

3.2 General

The AST Group Ltd is listed in the Software and Computers sector of the Johannesburg Stock Exchange (JSE). It is recognised as a dynamic and innovative Information and Communication Technology (ICT) Company. AST Group Ltd was formed when two ICT companies Abraxas Investment Holdings and AST Ltd merged in 1999. The sections that follow look at the historical background of the two companies.

3.3 Abraxas Investment Holdings

A brief history of Abraxas Investment Holdings is discussed underneath.

3.3.1 Background

Abraxas Investments was formed through amalgamation of a number of business entities from various corporate disciplines in 1996. Abraxas Investment Holdings was formed as information and communication technologies company providing services to mainly the financial, government and parastatal bodies. It listed on the JSE in September 1997 in the Industrial sector. Abraxas had grown in leaps and bounds through acquisitions and amalgamating with smaller companies like MD&A, CATS, Computer Appointments, WS & L, CEG and Great Lakes.

As part of it's strategy for growth Abraxas Investment Holdings also engaged in a number of strategic alliances and memoranda of understanding (MOU's) with other companies that included Kwezi Investment(a black empowerment company).

In its financial report of 1998, a year before its merger with ASTLtd and also a year after its listing on the JSE Abraxas Investment Holdings reported that it had exceeded its forecasts in earnings despite the shortage of skilled man power in the IT industry. Its balance sheet reflected a sound financial position and huge cash resources at its disposal, including unutilized capacity in its share capital that provided the company with huge prospects for growth through further investment decisions.

3.3.2 Abraxas Investment Holdings Strategy

Abraxas Investment Holdings' strategy was growth through penetration into the international markets. Growth through local acquisitions and consolidation of local operations was one of the major features of Abraxas Investment Holdings' strategy. But for international penetration the company's strategy detected that the local strategy be implemented first in order to give impetus and necessary resources to the international strategy.

Abraxas Investment Holdings' alliance with Kwezi, specifically in the area of telecommunications, where Kwezi has an existing and strategic relationship with Lucent Technologies Inc, a global telecommunications company headquartered in the USA provided further scope for growth into the international markets.

Abraxas Investment Holdings' strategy also entailed providing educational opportunities to young aspiring IT professionals especially those drawn from the Previously Disadvantaged Communities. Continual training of staff was one of the strategies through which Abraxas Investment Holdings intended not only to alleviate the shortage of IT professionals in the Industry but also to retain them. A share incentive scheme was one strategy Abraxas Investment Holdings used to ensure it retained its highly specialised IT professionals.

One the major objectives was to actively pursue new business opportunities incorporating inter alia internet technology, electronic commerce and telecommunications through the company's diversified range of products and services.

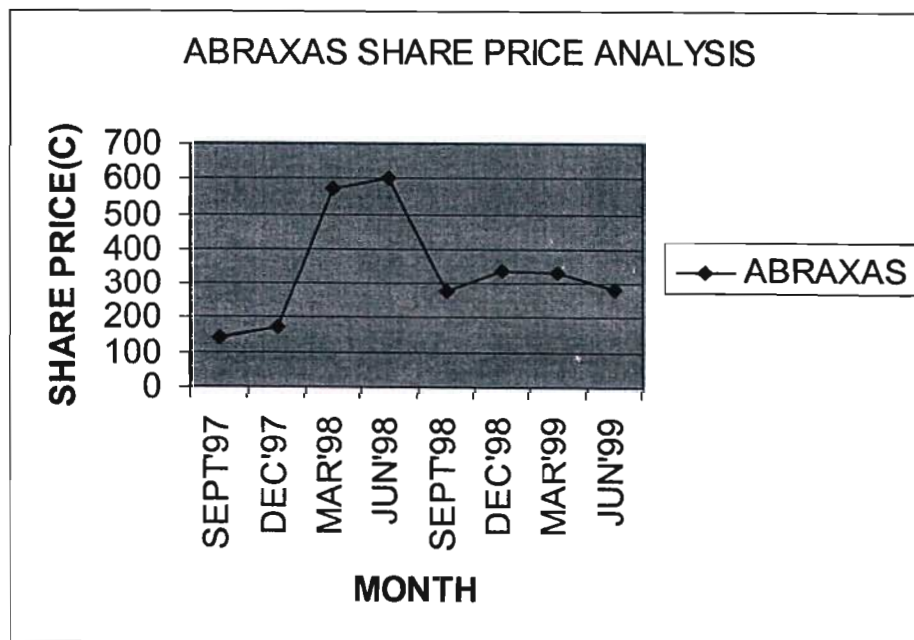
3.3.3 Future Prospects for Abraxas Investment Holdings

The successful implementation of the company's strategic objectives as outlined above would result in huge benefits for the company's stakeholders. Abraxas intended to actively partake in the development of the South African IT Industry to ensure that South Africa does not lag behind the rest of the world in that regard. Before the merger with AST Ltd, Abraxas Investment Holdings was already maintaining some presence in major business centres in the country. The company also boasted of a large pool of hardworking and dedicated workers.

3.3.4 Financial Performance

Since its formation in 1996 Abraxas Investment Holdings had enjoyed a steady growth in its headlines earnings and revenue on a year to year basis up to the time of the merger with AST Ltd in 1999. The share price of Abraxas stock had been increasing steadily since its listing on the JSE in 1997. The graph below depicts the share price behavior on a monthly basis since 1997. A bigger version of this graph and the full history of Abraxas Investment Holdings Shares is shown on the appendices.

Figure 3.1



3.4 AST LTD

A brief history of AST Ltd is discussed underneath.

3.4.1 Background

AST Ltd was formed in 1987 as an ICT Company specialising in providing technology services to the mining and manufacturing industrial sectors of South Africa. AST Ltd first listed on the JSE in 1998 after many years of trading. In August 1999, a year later, AST Ltd merged with Abraxas Investment Holdings to form what is now called AST Group Limited. AST was unique in that it was one of the few companies in South Africa where all employees are also shareholders. Since its formation AST Ltd enjoyed pleasing growth in revenue and headline earnings until its merger in 1999 with Abraxas Investment Holdings. AST Ltd's client base consisted of blue chip companies.

AST Ltd was consolidated and transformed into six major vertical entities after its listing in 1998. The six entities are listed below as:

- AST Consulting group
- AST Outsourcing Group
- AST Enterprise Systems Management Group
- AST IT Services Group
- AST Communications Group
- AST Education Group

3.4.2 Strategy

Like Abraxas Investment Holdings, AST Ltd's strategy emphasised growth through acquisitions and amalgamations. AST Ltd acquired Workforce Solutions (Pty) Ltd and Paras Africa (Pty) to form one of the top consulting houses in South Africa.

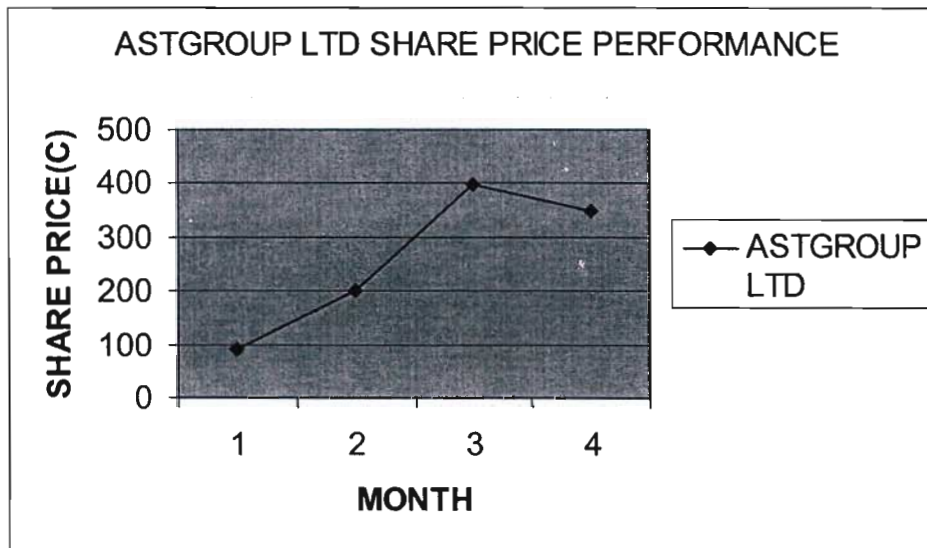
Strategic Objectives for AST can be listed as follows

- Providing Specialised expertise to the mining, bank-assurance, discreet manufacturing and process control
- Sustained Growth in headline earnings per share
- Globalisation by establishing international operations in the core areas of the business. Focus to be entirely on ESM, Mining and ERP
- Black empowerment was also high on the agenda

3.4.3 Financial Performance

AST Ltd had enjoyed continued growth in earnings ever since its formation. The graph below is a plot of AST Ltd's share price performance since its listing on the JSE in 1998 until its de-listing in August 1999. The graph depicts an ever increasing value of AST Ltd's share price, a clear indication of how the markets view AST Ltd.

Figure 3.2



3.5 THE MERGER

On Thursday 6th May 1999 it was announced in the financial press that an agreement had been reached, subject to ratification thereof by Abraxas Investment Holdings Shareholders and AST Ltd Shareholders in separate general meetings to merge Abraxas disposal assets and AST Ltd disposal assets with effect from the effective date. This marked the birth of AST-A which was later to be renamed AST Group Ltd. AST Ltd Shareholders were paid R2.1million(about R5 per share) in cash by AST Group Ltd for their shares in return for RLA whilst Abraxas Investment Holdings Shareholders received R4.41 per share. All transactions were in cash. On the date registration of AST Group Ltd on the JSE the original AST Ltd shareholders owned 420 000 000 shares in AST Group Ltd whilst Abraxas Investment Holdings shareholders owned 119 678 415 AST Group Ltd shares. Both AST Ltd and Abraxas Investment Holdings listing on the JSE were terminated when AST Group Ltd listed on 9th August 1999. After the implementation of the merger proposal the new share structure looked like this:

	<u>%</u>	<u>AST Group Shares</u>
Abraxas Investment Holdings Shareholders	22.2	119 678 415
AST Ltd	77.8	420 000 000
TOTAL	100	539 678 415

3.6 RATIONALE FOR THE MERGER

As reported in the pre-listing statement of AST Group Ltd the merger between AST Ltd and Abraxas Investment Holdings was motivated by both generic and specific reasons (objectives)

Generic Objectives are listed as:

- Size – the larger the size that AST Group Ltd became the larger the contracts that became accessible to it
- Synergistic benefits that would arise from the array of complimentary capabilities, products and service offerings and the extended client base between the two companies provided a strong case for implementing the merger proposal.
Rationalization of those duplicated capabilities and resources would obviously create an opportunity for synergistic benefits
- The most important opportunity for synergy lies in the creative synthesis of the extended array of capabilities, products and services in order to provide more comprehensive integrated solutions to the higher order needs of clients and to provide such solutions on a higher level of added value
- The merger would general enable the provision of solutions on an adhoc, arms length contractor basis

With the generic objectives for the merger above and the more specific reasons to be listed below the merger of AST Ltd and Abraxas Investment Holdings would create a company with big potential to expand geographically because of its size and extent of resources. This company would also boast of potential and capacity to take full advantage of the enormous opportunities the South African and Global IT markets have to offer.

SPECIFIC REASONS FOR THE MERGER

- Access to big scale IT contracts from Government, parastatals and large companies as a result of AST Group Ltd's financial capacity, expanded range of software products and the large skills pool that exceeded 2000 IT professionals
- Reduced costs of equity finance
- Ability to cover a larger geographic area and client base. AST Ltd focused mainly on the mining and the manufacturing industries whilst Abraxas Investment Holdings was involved in the financial services sector, government, and telecommunications and utilities industries. The merger would create one large entity with capacity and capabilities to serve every conceivable client across all the industries
- Complimentary competencies, technologies, products, service offerings and generic IT solutions created scope for the merger
- Synergistic benefits resulting from the combination of the expertise and management strengths of the AST Ltd and Abraxas Investment Holdings
- Employee benefits and the ability to attract and retain IT professionals of the highest calibre as all the employees of AST Group Ltd would also be shareholders with enhanced career opportunities
- Bigger merged entity would be in a stronger position to enter into strategic IT partnerships and also afford to service existing markets more easily with its much wider skills and technology base
- Exploiting enormous and vast opportunities the South African and the global IT market offer
- Greater financial strength as derived the sound financial bases of both Abraxas Investment Holdings and AST Ltd thus allowing AST Group Ltd to exploit opportunities of growth both locally and internationally.

The IT industry is very volatile and technology changes constantly thus providing a big challenge to companies to continually appraise the strategies in order adapt to changes. Amidst this change companies need to continue to survive, grow and continue to prosper. Companies need to create value for their clients, for their shareholders and at the same time for their employees and suppliers.

As outlined above the rationale for the formation of AST Group Ltd is clear and strong. It remains to be seen however that given such a strong case for the merger what the performance of the new entity has been. Does it justify the merger? What has been the effect of this merger on the wealth of the shareholders of both Abraxas Investment Holdings and AST Ltd? This is the main objective of this case study.

3.7 AST GROUP LT

The history of AST Group Ltd is summarized in the sections that follow.

3.7.1 General

AST Group Ltd is a result of the merger of between AST Ltd and Abraxas Investment Holdings. Both AST Ltd and Abraxas Investment Holdings came about as a result of growth strategies featuring acquisitions and amalgamations, but in combination with consistent organic growth. The driving force behind these mergers and acquisitions has always been to create even more value for the clients, employees, shareholders and other stakeholders. Each of the elements, which now together represent one of the leading Information and Communication Technology Organizations in Africa grew organically through sound business practice.

AST Group Ltd is considered one of the leading Information and Communication Technologies companies in South Africa with a large client base across different sectors of the economy that includes 90% of the top JSE listed companies. AST Group Ltd has a diversified and comprehensive range of ICT Consulting and delivery capabilities that includes providing general business services. AST Group Ltd employs more than 3800 ICT professionals world wide providing the group's specialised business knowledge in the financial services, mining and manufacturing, telecommunications, and government and health care industries as well as in some emerging sectors.

“AST Group's strategic purpose is sustainable accelerating growth measurable in terms of revenue and earnings. Obviously share price, price earnings ratio and market capitalisation are the ultimate measures of wealth creation. Management accepts

however that these variables are subject to speculative market forces beyond the control of management. Management therefore focuses on the tangible and intangible fundamentals that determine the value of shares over the long term” (Annual Report, 1999). This was a statement by the CEO of AST Group Ltd underlining the strategic objectives of AST Group Ltd. The purpose of this study is to investigate how far has AST Group gone in accomplishing their objectives in the last three to four years since the merger and also to establish how value has been created or destroyed for the shareholders.

Intergrating Abraxas Investment Holdings with the strongly innovative but disciplined AST Ltd culture has proven to be a challenged for management. However as management puts it AST Group Ltd has managed to reshape Abraxas Investment Holdings to become a jewel contributing positively to profits and also making a strong strategic contribution.

AST Group Ltd's delivery model is aimed at deriving synergy from the various individually focused business units which in turn are organized into three operating divisions. Clients should benefit from the company's project management abilities. Value for clients is created by means of the plan-build-run leverage service delivery model, meant to drive down the total cost of ownership while exploiting technology to create innovative business solutions that ensure that clients remain competitive in their chosen markets.

3.8 CONCLUSION

There it goes. The case for the merger between Abraxas Investment Holdings and AST Ltd was clear and strong. Before the merger both AST Ltd and Abraxas Investment Holdings had been posting positive earnings and obviously good returns to their shareholders. Expectations were therefore high from both set of shareholders for the new entity AST Group Ltd to surpass or maintain their level of returns. Thus the pressure was high on the management of AST Group Ltd to achieve good results. The next chapter analyses the performance of AST Group Ltd after the merger with an obvious objective of attempting to establish the gains accruing to the shareholders.

CHAPTER 4: ANALYSIS OF THE MERGER

4.1 Introduction

This chapter evaluates the merged company AST Group Ltd to establish the effects of the merger on the wealth of the shareholders. This is undertaken by analysing the performance of AST Group Ltd after the merger and comparing this with the pre-merger performance of merger parties Abraxas Investment Holdings and AST Ltd. Both accounting data analysis and share price analysis are used to analyse the performance of AST Group Ltd. The chapter opens by first evaluating if the price paid by AST Group Ltd for both Abraxas shares and AST Ltd shares was justified. This would also allow us to establish if there was any premium paid and the implication of that premium on the performance of AST Group Ltd. The available valuation methods are used to undertake the above exercise.

4.2 Valuation of Abraxas Investment Holdings

The purpose of this valuation is to establish the worth of Abraxas at the time of the merger. AST Group Ltd paid a price of R4.41 for each share of Abraxas Investment Holdings. Was this the real worth of the Abraxas Investment Holdings Share? A number of valuation methods are available for use however due to lack of adequate information most of the methods will not apply. The Discounted Cashflow Method, Capital Asset Pricing Method, Net Asset Value method, Dividend growth model and the Price Earning Ratio methods are amongst the available tools for use in this exercise.

The use of the methods that apply dividend information is limited as there is no history of dividend payment by Abraxas Investment Holdings. Furthermore the use of the cash flow method is also limited by the lack of information regarding the required rate of return either Abraxas or AST are using. Thus the value of the Abraxas Investment Holdings Share can only be estimated by use

of the Net Asset Value method, the Capital Asset Pricing Method and the Price earnings ratio method.

4.2.1 Valuation using CAPM

To eliminate the gain that may have been impounded to the price of the shares at the time of the merger either as a result of leakage of merger information, insider trading or anticipation the share price of Abraxas Investment Holdings exactly a year prior to the date on which the company's listing on the JSE was withdrawn is fixed. This share price is then adjusted by calculating the return that would reasonably have been expected from the firm in the absence of the merger offer, given the actual market conditions that arose in that year. This can be computed by using the Capital Asset Pricing Model(CAPM) as follows:

$$ER = R_f + B_s (R_m - R_f)$$

Where ER = the return that would have been expected from Abraxas Investment Holdings in the year prior to the merger; R_f = the risk free rate (taken as the three month Treasury Bill rate = 11%); B_s = Beta coefficient for the sector in which Abraxas Investment Holdings was quoted in the JSE; R_m = the return on the market (as measured by the JSE Actuaries Industrial Index) in the year of the de-listing of Abraxas Investment Holdings. The component $(R_m - R_f)$ has been estimated to be normally 12% per annum (JF Afleck – Grave). This shows that the market return is normally 12% above any return from an investment in a South African Treasury Bill.

The required estimates of B_s for the relevant sector of the JSE were acquired from the published betas by sector for listed companies. For companies in the Software and computer Services Sector of the JSE where Abraxas Investment Holdings and AST Group Ltd are registered the value of beta is estimated as 2.09.

Therefore using the information gathered above the expected return on the Abraxas share over the year prior to the merger can then be estimated as follows:

$$\begin{aligned} \text{ER} &= R_f + b (R_m - R_f) \\ &= 11 + 2.09(12) \\ &= \underline{36\%} \end{aligned}$$

The expected share price at the time of de-listing, in the absence of the merger bid, for Abraxas Investment Holdings can then be estimated as:

$$\text{EP} = (1 + \text{ER}) * \text{SP}$$

Where EP = the expected share price of Abraxas Investment Holdings on the date of delisting, assuming no merger bid had been made for Abraxas Investment Holding; SP = the share price of Abraxas Investment Holding one year prior to delisting(= 620c).

$$\begin{aligned} \text{EP} &= (1+0.36) * 620 \\ &= \underline{843c} \end{aligned}$$

The premium paid on the Abraxas Share can also be estimated by comparing the actual share price paid with the estimated share price. At the time of delisting in July 1999 the price of the Abraxas Share was 232c. According to the CAPM calculation above the expected share price at the time of delisting has been estimated as 843c. Using this calculated value it can then be concluded that at 441c the Abraxas share was bought at a discount by AST Group Ltd. However the actual market price of the share indicates that the share was bought at a premium. There is obvious a contradiction between the calculated value and the actual value of the share. This indicates the effects the merger had on the value of this share.

4.2.2 Valuation using Net Asset Value Method

Net Asset Value (NAV) of the company is taken as the minimum value acceptable for the company's shares. NAV is an accounting definition of business value as determined from historic cost balance sheet but quoted in terms of equity:

$$\text{Net Asset Value (NAV)} = \frac{\text{Ordinary shareholders funds}}{\text{Number of Ordinary Shares}}$$

The NAV method can also be used to establish the Market to Book value ratio which can also assist in establishing the effect of the merger on the wealth of the shareholders. NAV has been calculated on Appendix 2 as follows:

As at December 1998 the NAV for Abraxas Investment Holdings was: 35.98c. By the time of de-listing the results of Abraxas were already incorporated into the results of AST Group Ltd. Therefore it is not easy to calculate the NAV of Abraxas at the time of de-listing.

4.2.3 Valuation using the Price/Earnings Ratio Method

The value of the Abraxas Share can also be estimated by using the Price earning method. The P/E formula can be written as follows:

$$\text{P/E Ratio} = \frac{\text{Market Price of the Share}}{\text{Earnings per share}}$$

Re-arranging this formula the market price of the share can be estimated using the P/E ratio of the industry thus:

$$\text{Market price of the share} = \text{P/E ratio} * \text{Earnings per share}$$

Earnings per share have been calculated as 8.26 as at the end of December 1998 and this ratio can be read from appendix 2. The P/E ratio for the sector in which Abraxas was registered has been obtained from the JSE as 17. This therefore implies that the share price of Abraxas can be estimated as:

$$\begin{aligned} \text{SP} &= 17 * 8.26 \\ &= \underline{140c} \end{aligned}$$

The P/E is considered a yardstick for investor sentiment towards the shares of a company and is a crude measure of the worth of a particular company's shares. Although it is not a favoured method of valuing a company it is worth including in any valuation exercise.

4.2.4 What premium was paid for the Abraxas Share?

The results of the three valuation methods used above indicate the following:

<u>Method</u>	<u>Share Price (Cents)</u>
CAPM	843
Net Asset Value Method	35.98
Price Earnings Ratio	140
Actual Share Price at time of de-listing	232
Actual Price paid for the Abraxas Share	441

As can be seen above there is a big variance in the calculated values of the price of the Abraxas Share using the three applicable methods. This variance is made worse by the absence of necessary information necessary to make use of the fourth valuation method and the most favoured cash flow method. It is not certain what method ASTGroup Ltd used for valuing Abraxas but based on the CAPM calculations it can be concluded that Abraxas Shares were bought at a discount. It is however not easy to commit one on this conclusion as the results of the calculation may not necessarily be true because of the many assumptions and estimations on the variables used on the formula.

The other methods too have their shortcomings. The P/E and the NAV methods use historic accounting data as reflected on the balance sheet and the income statement. The available data for Abraxas used in the calculations is one which was reported about six months before the merger and therefore the calculated values reflect the worth of Abraxas as at the 31 December 1998 and not at the time of delisting. This further limits the validity of these calculations. By the time of delisting the financial results of Abraxas were already incorporated in the financial statements of AST Group Ltd. It is therefore not easy to estimate the premium paid for the Abraxas Shares by AST Group Ltd

4.3 **Valuation of AST Ltd**

Using the methods as outlined above the value of the AST share at the time of the merger can be estimated as follows:

<u>Method of valuation</u>	<u>Price (cents)</u>
CAPM ($SP=(1+0.36)*90$)	122
Net Asset Value Method	33
Price Earnings Ratio	114
Actual price at the time of delisting	275
Actual price paid by AST Group Ltd	500.

As with the Abraxas Investment Holdings above the valuation of AST Ltd before the merger or at time of the merger is difficult given the amount of information available. However if the above results are anything to go by then it can be concluded that the AST Ltd Share was overvalued at 500c at the time of merger. This indicates that it bought at a premium.

4.4 **The Merger Results**

To analyse the effect of the merger on the wealth of the shareholders two complimentary methods are used namely

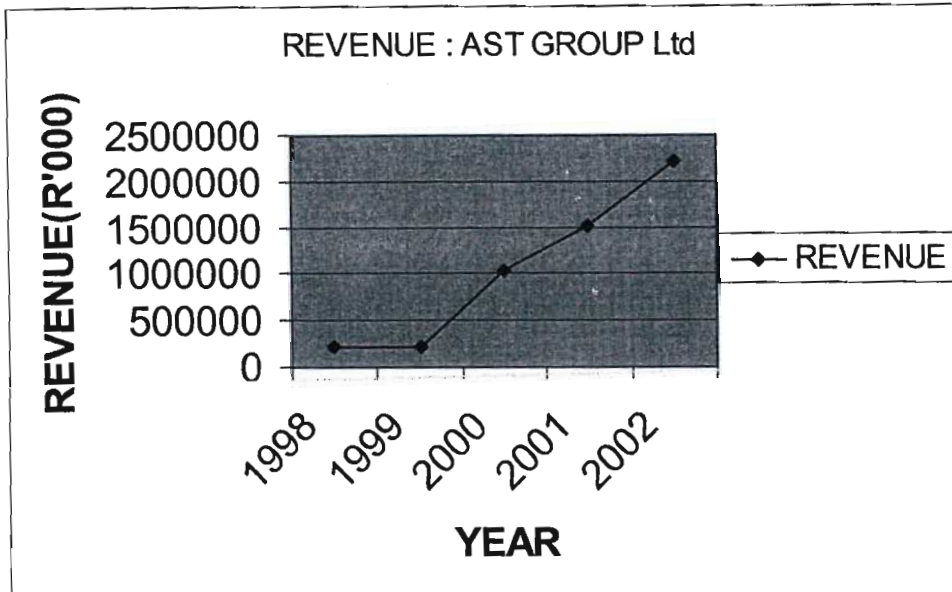
- Accounting Data Analysis
- Share price analysis

4.4.1 **Accounting Data Analysis**

This method tries to establish what the effect of the merger could have been on the wealth of the shareholders by analysing the performance of the company after the merger and contrasting it with the pre-merger values. Various accounting ratios have been calculated based on AST Group Ltd's Annual Income Statements and Balance Sheets. Plots of these ratios are shown below to depict the trends

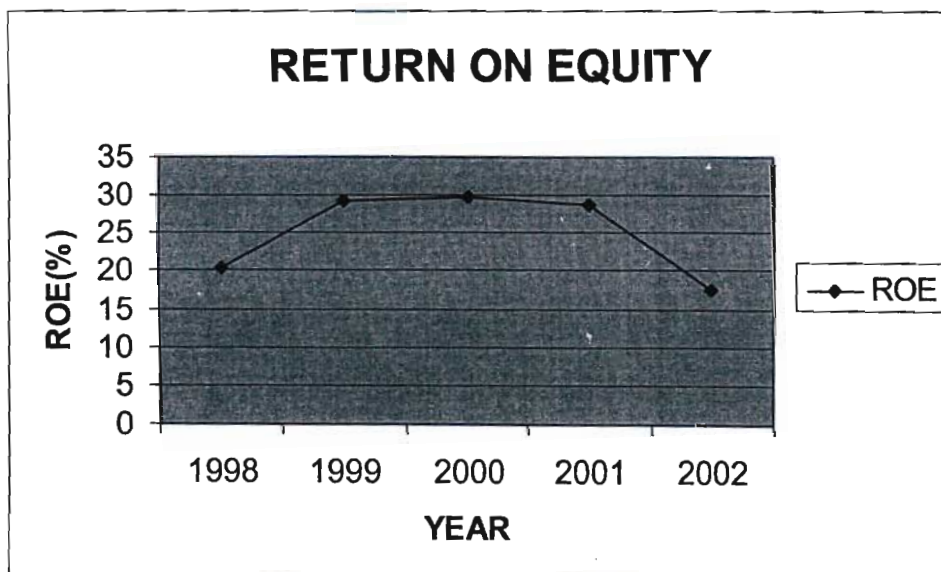
096302

Figure 4.1



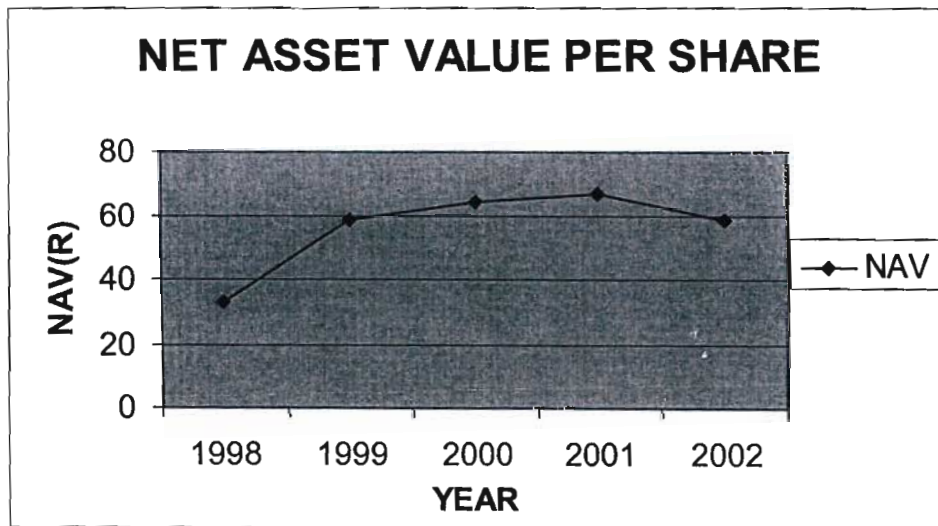
As the above graph shows Revenue for AST Group Ltd has been increasing steadily from a pre-merger value of below R500million in 1998 to a value of over R2 billion in 2002. This obviously reflects an improvement on the performance of AST Group Ltd following the merger. This should automatically translate to an improvement of the value of the shareholders' wealth if revenue alone were to be used as a measure of this effect.

Figure 4.2



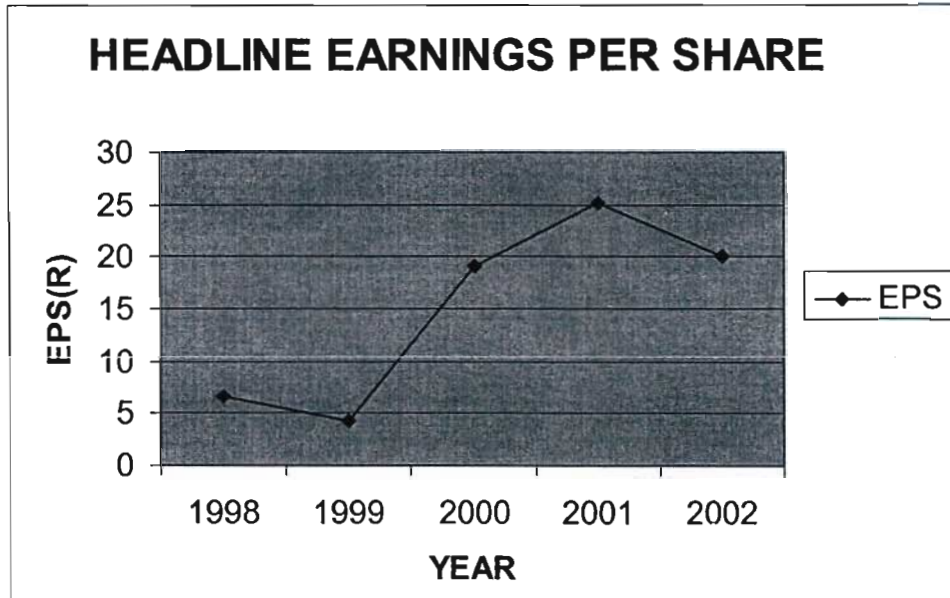
Return on Equity is the main ratio for measuring the effect of an investment on the wealth of the shareholders. Return on equity jumped from a figure of 20% before the merger to a figure of around 30% after the merger until the year 2001. This figure dropped to less than its pre-merger value in 2002. Between the years 1999 and 2001 there has been an obvious improvement on the worth of the shareholders wealth. It is however not easy to interpret from the graph above which of the shareholders benefited most from the merger of these two companies.

Figure 4.3



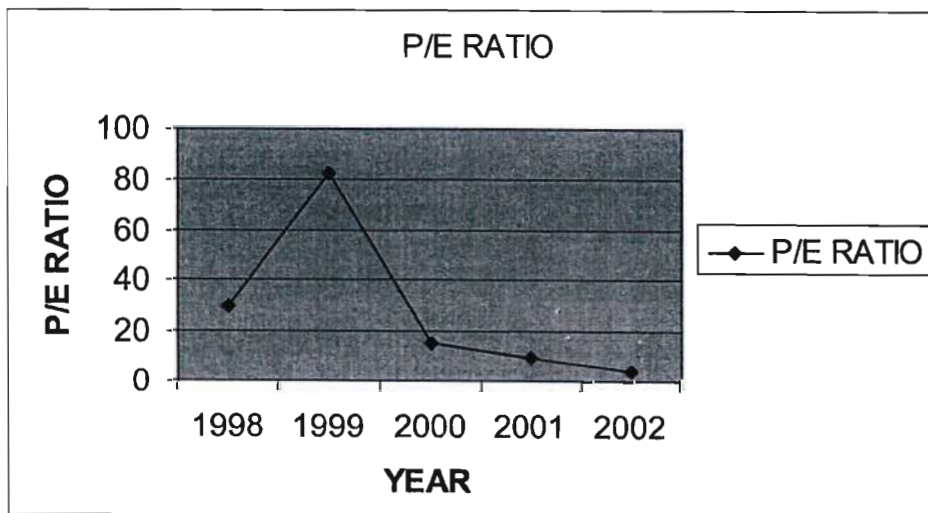
Net Asset Value (NAV) is the actual measure of the worth of the company's shares based on book value and the shareholder wealth. The above graph indicates that the wealth of the AST Group Ltd shareholders improved after the merger. The value of NAV jumped from a pre-merger value of 25c in 1998 to a value of 60c immediately after the merger and has been increasing gradually afterwards.

Figure 4.4



The above graph also reflects an improvement on the wealth of the shareholders as reflected by a gradual increase in the value of earnings per share over the years after the merger.

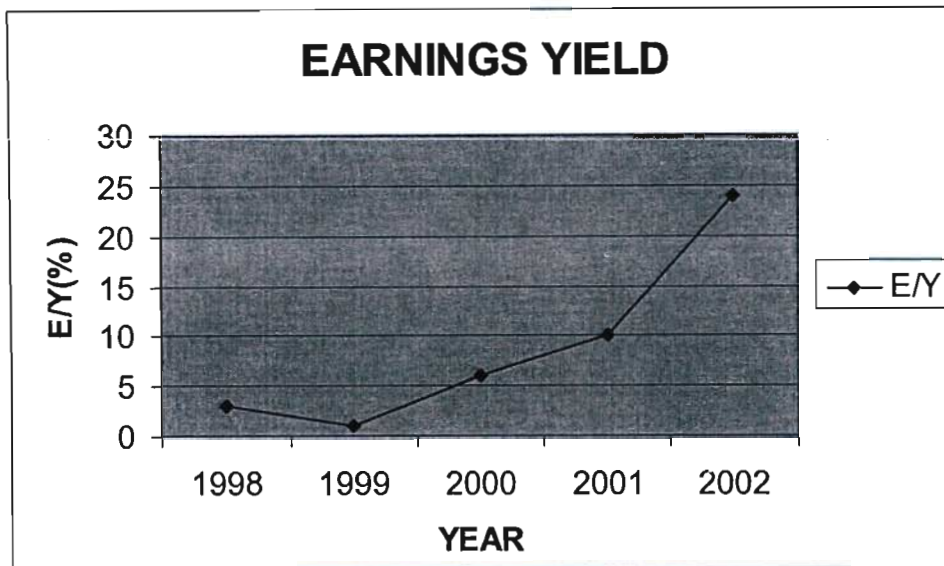
Figure 4.5



The graph above indicates that the P/E ratio increased drastically from a pre-merger value of 22 to a value of just over 80 immediately after the merger. This reflects what the market's expectations were for this merger. This ratio has however nose-dived after the first jump to below pre-merger values and it has continued to drop on a year by year basis. This is due to the ever decreasing value of the AST Group Ltd Shares indicating the market's

continued re-assessment of this merger. In contrast to the scenario presented by the other ratio the P/E depicts a scenario of value loss to the shareholders wealth

Figure 4.6



Due to the ever decreasing value of the AST Group Ltd share the above correctly depicts a gradual growth on the earnings yield. While the earnings continue to grow the share price continues to drop and thus resulting in an increase on this ratio.

According to the above analysis it can be concluded that the merger had positive outcomes for the shareholders as evidenced by increases on a number of ratios: Revenue, ROE, NAV, and EPS after the merger. Although the P/E ratio has been declining after the merger it cannot be safely concluded that this is a direct result of the merger. Probably both the Abraxas Investment Holdings and the AST Ltd shares were grossly overvalued before the merger and thus the evident drop is a result of the market's reassessment of these companies.

4.4.2 Share Price Analysis

This analysis looks at the share prices prior and after the merger with a view of establishing any trends and thus inferences on the gains on the shareholder values. The Abraxas Investment / AST Ltd merger was unique in that the effective date of the merger was before the date of announcement of the merger. This merger was announced on the financial mail on Thursday 6th May 1999 whereas in principle the two companies effectively merged their operations on 1st April 1999. The share price analysis normally considers the behavior of share prices on and around the announcement dates. In this case both the effective date and the announcement date will be considered

The effect of the merger on the market value of the company shall be investigated with a view of trying to establish the synergistic benefits and hence the benefits to the shareholders. For this exercise the effective date of the merger shall be used as the date of reference in terms of share price values.

At the time of the merger the following scenarios prevailed:

A. Market Value of the Merger firms before the merger

- As at the end of March 1999 the Abraxas Investment Holdings Share cost 330c and there were 135 482 272 shares in issue
- As at the end of March 1999 the AST Ltd share cost 398c and there were 420 000 000 shares in issued

Therefore the market value of the merger firms before the merger can be estimated as follows:

Market Value of Abraxas = 135 482 272 * 330 = R 447 091 497.60

Market Value of AST Ltd = 420 000 000 * 398 = R 1 671 600 000.00

TOTAL MARKET VALUE (Pre-Merger) = R 2 118 691 497.60

B. Market Value of the Merged firm (After the merger)

- As at April immediately after the effective date of the merger the Abraxas share cost 375c and there were 119 678 415 shares in issue
- The AST Ltd share cost 495c and there were 420 000 000 shares in issue

Therefore the market value of the merged firm immediately after the merger can be estimated as follows:

Market value of Abraxas shares = $119\,678\,415 \times 375 = \text{R } 448\,794\,056.00$

Market value of AST Ltd = $420\,000\,000 \times 495 = \text{R } 2\,079\,000\,000.00$

TOTAL MARKET VALUE (after the merger) = R 2 527 794 056.00

C. COST OF THE MERGER

- The Abraxas share was valued at 441c for the purpose of the merger whilst the AST share was valued at 500c

Therefore the value of the deal can be estimated as follows:

Value of Abraxas = $119\,678\,415 \times 441 = \text{R } 598\,392\,075.00$

Value of AST Ltd = $420\,000\,000 \times 500 = \text{R } 2\,100\,000\,000.00$

TOTAL VALUE OF THE DEAL = R 2 698 392 075.00

The merger between Abraxas Investment Holdings and AST Group Ltd is classified as a related merger as both companies are in the same industry i.e Information and Communication Technology consulting. One of the major objectives of the merger was the realization of synergistic benefits that would accrue as a result of rationalization and streamlining of complimentary functions. If the value of such benefits is known together with the value of the premium paid when the deal was concluded then the gains to the shareholders can be estimated.

Synergistic benefits can be estimated as follows:

$G_0 = V_{ab} - (V_a + V_b)$ where

$G_0 =$ Synergistic benefits

$V_{ab} =$ Market value of the merged firm

$V_a, V_b =$ Market values of the merger firms (Abraxas and AST Ltd)

Using figures already calculated above synergistic benefits are calculated below:

$G_0 = \text{R } 2\,527\,794\,056 - \text{R } 2\,118\,691\,497.60$
 $= \text{R } 409\,102\,558.40$

The premium paid by AST Group Ltd for both Abraxas and the original AST Group Ltd shares can also be estimated using the calculated figures above as follows:

$$G_t = PP - (V_a + V_b)$$

Where G_t = Premium paid

PP = Price paid

V_a, V_b = Market value of Abraxas and AST prior to the merger

$$\begin{aligned} G_t &= R\ 2\ 698\ 392\ 075 - 2\ 118\ 691\ 497.60 \\ &= \mathbf{R\ 579\ 700\ 577.40} \end{aligned}$$

The gain to shareholders can also be estimated using the above calculations as follows:

$$\text{Gain to Shareholders} = G_0 - G_t$$

Where G_0 = Synergistic benefits as calculated above

G_t = Premium paid for the shares

$$\begin{aligned} \text{Gain to shareholders} &= R409\ 102\ 558.40 - R579\ 700\ 577.40 \\ &= \mathbf{R - 170\ 598\ 019.00} \end{aligned}$$

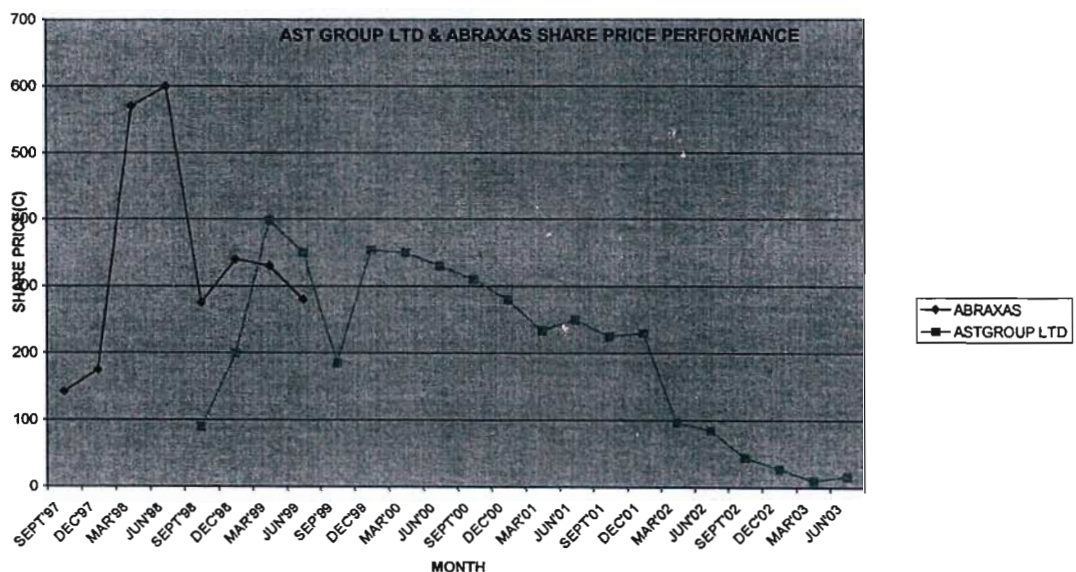
The above calculation indicates that overallly the shareholders of both companies experienced negative gains as a result of the merger between the two companies. It is however not easy from the above calculations to conclude which of the two groups of shareholders was affected most. An attempt to establish this is undertaken by analysing the share price behavior on a monthly basis on and around the merger date. A history of the share prices of both companies since their listing until de-listing was obtained from the JSE. A plot of the monthly share price is shown on the graph below. A bigger version of this graph is also included as appendix 1 including a full list of the monthly share prices.

Prior studies have indicated that shareholders of acquired companies enjoy significant positive abnormal gains on or before the announcement of the merger bid. Significant negative gains have been reported to accrue to shareholders of the acquiring firm in the long run (Barnes, 1984).

Shareholders of the acquired companies experience abnormal positive returns immediately prior to the announcement date (Halpern, 1973; Mandelker, 1974; Langetieg, 1978; Affleck-Graves .etal). Studies have also indicated that gains to acquired companies appear to be experienced from approximately 10 weeks prior to the announcement (Affleck-Graves). Mandelker(1974) and Langetieg(1978) also observed gains from 7 or 6 months before the announcement date.

The purpose of this exercise is to establish how the above findings apply to the Abraxas / AST Ltd merger. A study of the share prices of both Abraxas Investment Holdings and AST Ltd in the months leading to the merger appear to yield contradictory results to the findings about share price behavior as inferred by the findings mentioned above.

Figure 4.7



The amalgamation of Abraxas Investment Holdings and AST Ltd is classified as a merger. But because of their relative sizes and developments after the transaction it may also be said that Abraxas Investment Holdings was acquired by AST Group Ltd.

As depicted by the graph above and in clear contrast of the prior findings no major abnormal gains or changes accrued to the shareholders of either Abraxas Investment Holdings or AST Group Ltd. Six months before the announcement of the merger the share price of Abraxas Investment Holdings stood at 375c and that of AST Group Ltd was 152c. It is shocking to note as depicted by the graph above that the Abraxas Investment Holdings Share declined in value gradually in the months that followed, this in direct violation of existing literature.

The Abraxas Investment Holdings share reached a low price of 299c in February 1999 but gained significantly after that to reach 330c in March 1999 i.e 10% gain. March 1999 is the period one month before the effective date of the merger and two months before the announcement of the merger. The share price of Abraxas Investment continued to increase after March until it reached a high of 375c in April but then declined after that until Abraxas Investment Holding's de-listing from the JSE in July 1999. At the time of de-listing the Abraxas Investment Holdings share cost 232c representing a drop of 63% over the 12 months period leading to the merger. This represents three periods of share price behavior: two periods of gain being 6 months before the merger announcement and two months before merger prior to the announcement date followed by a period of decline after that. This behavior indicates that the markets did not have much expectation from the merger between Abraxas Investment Holdings and AST Ltd.

A study of the AST Group Ltd shares reflects two periods of share price behaviour. A period of gain 6 months prior to the date of announcement until the effective date of the merger. During this period the share price of AST Ltd increased from 152c in October to 495c in April 1999(i.e 226 % increase). April 1999 is one month before the announcement date of the merger. The share price then declined in the second period stretching from April 1999 to the date the AST Ltd was de-listed on the JSE in July 1999.

From the above it can be concluded that AST Shareholders might have benefited abnormally during the period running up to the merger. The period after the merger is marked by an ever declining price of AST Group Ltd share. The price has declined from a high of 275c in August 1999 to a low of 16c in June 2002 i.e 3 years after the merger. This represents a 94% decline on the market value of AST Group Ltd despite posting positive earnings in the years that followed the merger. Aup Aawal (1972) discovered that on average stockholders of acquiring firms suffer a statistically significant loss of about 10% over the five years post merger period. It has been 4 years after the merger of Abraxas Investment Holdings and AST Ltd and already the shareholders have suffered a 94% loss on the value of their shares.

4.5 Conclusion

The analysis of the AST Ltd / Abraxas Investment Holdings merger as performed above reflects mixed results. In terms of the accounting data review it can be concluded that AST Group Ltd has been doing well after the merger as reflect by a positive growth in the accounting ratios: revenue, ROE, EPS and NAV over the years. This growth in the performance should obviously translate to growth on the value of shareholders' wealth.

On the other hand the Share price analysis depicts a different scenario. The shareholders especially those of AST Ltd experienced some positive abnormal gains in the six months period leading to the merger. This is reflected by a positive growth in the price of the shares. The same can not however be said about the shareholders of Abraxas Investment Holdings whose share price declined in the period leading to the merger except for the meager 10% gain it experienced in March 1999.

The overall conclusions and recommendations of the findings of this analysis are discussed in the next chapter.

CHAPTER FIVE: - RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

This study was undertaken in order to determine whether the merger between AST Ltd and Abraxas Investment Holdings resulted in enhanced value on the shareholders wealth. This merger has resulted in mixed outcomes for both sets of shareholders. Conclusions on this investigation of this merger can be summarized as follows:

5.2 Conclusion

- The accounting data analysis reflects an improvement on the post-merger performance of AST Group Ltd as measured by the ratios EPS; ROE; Revenue; NAV etc. Operational synergy between AST Ltd and Abraxas Investment Holdings could have resulted in improved performance. If these ratios were to be taken as true proxies for measurement of shareholders wealth improvement then it can be concluded that the merger resulted in improved value for shareholders. It is however not easy from these values to establish which set of shareholders benefited most

- The P/E ratios of AST Group Ltd have continued to drop in the post- merger period up to the year 2002. The P/E ratio measures the current profits being made by a company relative to its share price. Growth companies will normally have high P/E ratios as they are expected to grow rapidly and provide extra ordinary profits in the future. High P/E ratios mean it will take an investor many years to get a return but because the growth will be rapid the expected returns make the current investment worthwhile. As depicted in Appendix C the P/E ratio of AST Group Ltd has been dropping continuously in the post-merger period. The drop in the P/E ratios of AST Group Ltd signals the markets' disappointment with the merger. AST therefore has to do something to revive the market's confidence in them

- Myers and Beaty have shown that improvements in EPS alone without any other efficiency or synergistic benefits will not result in improvements in shareholder wealth. Although it has been calculated and proven that the merger between AST Ltd and Abraxas Investment Holdings would result in synergistic benefits it is not clear whether AST Group Ltd have implemented the right integration strategy in order to actually realize such gains. The fall in the P/E ratio is clear proof that there is something wrong that AST Group Ltd is doing. Rapport(1971) asserts that acquisitions or mergers that don't have a set acquisition strategy are less likely to succeed. It can therefore be concluded from this investigation that AST Group Ltd have not implemented an appropriate integration strategy in this merger. Laying off all the employees of Abraxas Investment Holdings in the years that followed the merger does not seem to be bearing fruits for AST Group Ltd.
- Stock price analysis reflects that the merger between AST Ltd and Abraxas Investment Holdings would result in Synergistic benefits and overall loss to the shareholders as result of the premium paid for some shares
- The stock price analysis also reflects significant abnormal gains to the shareholders of AST Ltd in the period leading to the effective date of the merger. Lance A Nail and other researchers concluded that in related mergers acquiring firms' security holders experience significant abnormal wealth increases on and around merger announcement dates. If AST Ltd were to be taken as the acquirer in this merger as mentioned before this finding is in line with the results obtained
- The same cannot be said however of the Abraxas Investment Holdings shareholders. As the stock price analysis shows the Abraxas share received a knock in the twelve months period leading to the merger. In this period this share dropped from 620c to 232c at the time of de-listing of Abraxas i.e a 63% loss. Despite recording some abnormal gains around the announcement date of the merger Abraxas shareholders did not benefit significantly from the merger. Stock price studies are however inconclusive on their own in determining real economic

gains to shareholders value as such gains or loss in stock prices may be purely due to mispricing

- Prior research show positive abnormal returns for acquired firms and mixed results for pre and post merger returns for bidding firms around announcement dates. The above findings are somewhat consistent with the findings in this study as both sets of shareholders experienced some improvements on their values around the announcement date.

5.3 Recommendations

As recommendations the following can be said about AST:

- AST Group Ltd needs to revisit its integration strategy and appraise its corporate objectives in line with the changing industrial environmental conditions. This will enable this company with great potential and capacity to realize the synergistic benefits from this merger and thus afford its shareholders the value they deserve on their wealth.
- The ever-declining value of the AST Group Ltd share is worrying. Despite producing solid profits year after year the markets seem to have lost favour with AST Group Ltd. Why? Investors use P/E and Dividend yields as the criteria for investing in stocks. The higher the value of these two ratios for a company then the more favorable will it be to invest in that company. The two ratios are very low for AST Group Ltd at the moment. AST has no history of paying any dividends. Dividends are important for long term investors particularly for people living on the income they derive from their investments. This could be one of the reasons the AST share price is so low. It is not in demand. AST Group Ltd therefore needs to consider paying a dividend in order to try and prop its share performance.

5.4 Summary

Overallly it can be concluded that the merger between AST Group Ltd and Abraxas Investment Holdings has not yielded the best possible results to the shareholders of these companies. Apart from yielding positive abnormal results for the shareholders around the announcement date the stock price analysis reveals declining returns to shareholders in the post merger period. On the other hand the accounting ratios depict a situation of improved performance in the post merger period. Performance improvement as reflected by the book values alone is not good as the important ratios like P/e and the Market to Book ratios are on the decline. AST Group Ltd needs to urgently implement a strategy that would revive its share prices. Otherwise this great company with great potential will be battling with a takeover bid soon

BLIBLIOGRAPHY

1. Donald R.C and Schindler P.S, 2001. Business Research Methods , 7th edition , McGraw Hill
2. Glen Arnold, 1998. Corporate Financial Management , 1st edition , Financial Times Prentice Hall
3. Carlos C, etal, 2000. Financial Management , 4th edition , Juta
4. Pervez G, etal, 1998. Research in Business Studies: A practical guide, 1st edition , Financial Times Prentice Hall
5. Kjell E.R and Rae R.N, 2001. Surviving Your Dissertation: A compressive guide to content and process, 2nd edition, Sage Publications inc
6. Ernst & Young Corporate Finance, 2000. Review of Merger & Acquisition Activity in South Africa
7. N. Bhana, 1987. Takeover announcements and Insider Trading activity on the Johannesburg Stock Exchange. South African Journal of Business Management, Volume 18(4)
8. P. Brews, 1986. Corporate growth through mergers and acquisitions: Viable Strategy or Road to ruin? South African Journal of Business Management, Volume 18(1)
9. J.P Affleck – Graves, G.H. Burt, S.J.M Cleaver, 1987. The performance of conglomerate companies on the Johannesburg Stock Exchange: An empirical valuation. South African Journal of Business Management, Volume 19(4)
10. SuHan Chan, J.W Kensinger, Arthur J Keown, John D. Martin, 1999. When do strategic alliances create shareholders value. Journal of Applied Corporate Finance, Volume 11(4)
11. Lance A Nail, William L Megginson, Carlos Maquieira, 1998. How Do Stock Swap mergers affect shareholders(bondholders) wealth: More evidence of the value of Corporate “Focus”. Journal of Applied Corporate Finance, Volume 11(2)
12. Mark L. Sirower, Stephen F O’Byrne, 1998. The Measurement of Post acquisition performance : Toward a value based benchmarking method. Journal of Applied Corporate Finance, Volume 11(2)

- 13 Navin Chopra, 1992. Measuring abnormal Performance: Do stocks overreact?.
Journal of Financial Economics, Volume 31
- 14 Anup Agrawal, Jeffrey F Jaffe, Gershon N. Mandelker, 1992. The Post- Merger
Performance of Acquiring Firms: A re-examination of an anomaly. The Journal of
Finance, Volume XLV11(4)
- 15 Juhan Franks, Robert Harris, Sheridan Titman, 1991. The Post Merger Share price
Performance of acquiring firms. Journal of Financial Economics, Volume 29
- 16 Paul M Healy, Krishna G. Palepu, Richard S Ruback, 1992. Does Corporate
Performance improve after merger? Journal of Financial Economics, Volume 31
- 17 Granville M Sawyer Jnr, Ronald E Shrieves, 1994. Stockholder Returns among
Homogeneous groups of mergers. The Journal of Financial Research, Volume
XV11(1)
- 18 Frederick Wright Searby, 1969. Control of Post Merger Change. Havard Business
Review
- 19 Oliver Kim, Robert E Verrecchia, 1991. Market reaction to anticipated
announcements*. Journal of Financial Economics, Volume 30
- 20 Louis W. Stern, 1969. Mergers under Scrutiny. Harvard Business Review
- 21 Ashok Singh, 2000. An exploratory study of the post merger performance and
accrual of benefits in the Wayne Rubber Merger. University of Natal Graduate
School of Business
- 22 AST Group Ltd, 1999. Pre Listing Statement. ast.co.za
- 23 Abraxas Investment Holdings, 1998. Annual report for the year ended 31
December 1998. ast.co.za
- 24 AST Ltd, 1998. Annual report for the year ended 31 December 1998. ast.co.za
- 25 AST Group Ltd, 1999. Annual report for the year ended 31 June 1999. ast.co.za
- 26 AST Group Ltd, 2000. Annual report for the year ended 31 June 2000. ast.co.za
- 27 AST Group Ltd, 2001. Annual report for the year ended 31 June 2001. ast.co.za
- 28 AST Group Ltd, 2002. Annual report for the year ended 31 June 2002. ast.co.za

APPENDICES

Pre-Merger Income Statements and Salient Statistics

Appendix A

	<i>Abraxas Technologies</i>	<i>AST Ltd</i>
	31-Dec-1998 (12 months) R'000	31-Dec-1998 (6 months) R'000
Revenue	175,530.00	213,131.00
Operating Income	13,883.00	30,450.00
Income from Investments / Interest Received	1,875.00	4,178.00
Finance Costs	1,136.00	
Profit before tax and amortisation	14,622.00	34,628.00
Tax	3,888.00	12,113.00
Profit After Taxation	10,734.00	22,515.00
Minority Interest	-	23.00
Share of results of associates	118.00	-
Profit Attributable to Ordinary Shareholders	10,852.00	22,538.00

Number of shares in issue	131,323.00	337,480.00
(Loss) / Earnings per ordinary share(cents)	8.26	6.68
Price Earnings Ratio	41.14	29.95
Earnings yield	2%	3%
Share price at Year end(cents)	340.00	200.00

<i>Abraxas Technologies</i>	<i>AST Group</i>
31-Dec-1998 R'000	31-Dec-1998 R'000

1.Assets

Non-Current Assets	17,588.00	47,091.00
Property, Plant and Equipment	5,734.00	38,522.00
Investment & Loans	11,854.00	7,188.00
Intangible assets	-	-
Deferred Tax assets	-	1,381.00

Current Assets

	66,582.00	122,445.00
Other Receivables & Prepayments	2,027.00	-
Inventories	7,429.00	731.00
Accounts receivable	37,470.00	57,521.00
Cash and Cash equivalents	19,656.00	64,193.00

Total Assets	84,170.00	169,536.00
---------------------	------------------	-------------------

2.Equity and Liabilities**Capital and Reserves**

	46,286.00	110,461.00
Ordinary Share Capital	131.00	34.00
Share Premium	35,303.00	87,889.00
Distributable Reserves	-	22,538.00
Non-Distributable Reserves	10,852.00	-

Minority Interest	960.00	-
-------------------	---------------	---

Non-Current Liabilities

	3,051.00	122.00
Interest Bearing Liabilities	1,357.00	122.00
Deferred tax liabilities	1,694.00	-

Current Liabilities

	33,873.00	58,953.00
Accounts Payable	27,773.00	45,800.00
Amounts due to Vendors	3,084.00	-
Short-term Debt	822.00	-
Tax Liability	2,194.00	13,153.00

Total Equity and Liabilities	84,170.00	169,536.00
-------------------------------------	------------------	-------------------

No of Shares in Issue	131,323.00	337,480.00
Net Asset Value per Share(cents)	35.98	32.73
Return on Equity(%)	22.97	20.40
Share Price(Cents)	340.00	200.00
Market / Book Ratio	9.45	6.11

	30-Jun-2002 (12 months) R'000	30-Jun-2001 (12 months) R'000	30-Jun-2000 (12 months) R'000	30-Jun-1999 (3months) R'000
Revenue	2,219,650.00	1,513,542.00	1,027,103.00	210,263.00
Cost of Sales	1,699,222.00	1,261,481.00	831,350.00	168,161.00
Gross Profit	520,428.00	252,061.00	195,753.00	42,102.00
Operating Expenses	366,615.00	68,250.00	77,868.00	16,680.00
Earnings Before Exceptional Items	153,813.00	183,811.00	117,885.00	25,422.00
Loss on Sale/ Discontinuity of Business	30,184.00	1,197.00	-	-
Operating Profit	123,629.00	182,614.00	117,885.00	25,422.00
Net(finance cost) / interest received	3,432.00	1,923.00	10,967.00	4,430.00
Share of results of associates	2,619.00	69.00	-	-
Profit before tax and amortisation	117,578.00	184,606.00	128,852.00	29,852.00
Arnotization of goodwill	138,179.00	126,547.00	-	-
(Loss)/ Profit before tax	-20,601.00	58,059.00	128,852.00	29,852.00
Tax	29,605.00	41,342.00	25,429.00	6,695.00
(Loss)/ Profit after tax	-50,206.00	16,717.00	103,423.00	23,157.00
Minority Interest	4,674.00	814.00	-	36.00
Net(Loss) / Profit for the year	-54,880.00	15,903.00	103,423.00	23,121.00
Number of shares in issue	575,046.00	554,123.00	546,321.00	540,678.00
Headline Earnings per ordinary share(cents)	20.08	25.06	19.03	4.24
Price Earnings Ratio	4.23	9.58	15.45	82.55
Earnings yield	24%	10%	6%	1%
Share price at Year end(cents)	85.00	240.00	294.00	350.00

	30-Jun-2002 R'000	30-Jun-2001 R'000	30-Jun-2000 R'000	30-Jun-1999 R'000
1.Assets				
Non-Current Assets	602,219.00	554,060.00	270,147.00	237,394.00
Property, Plant and Equipment	164,683.00	133,102.00	96,207.00	60,165.00
Interest in subsidiary companies	-	-	-	-
Interest in associate companies	604.00	12,149.00	-	-
Investment & Loans	24,245.00	21,167.00	41,533.00	31,124.00
Intangible assets	281,498.00	261,192.00	1,179.00	-
Deferred Tax assets	131,189.00	126,450.00	131,228.00	146,105.00
Current Assets	551,253.00	500,860.00	405,987.00	224,346.00
Rental Assets	34,915.00	11,375.00	-	-
Inventories	30,452.00	18,950.00	4,095.00	2,932.00
Accounts receivable	374,155.00	309,577.00	197,941.00	140,246.00
Cash and Cash equivalents	111,731.00	160,958.00	203,951.00	81,168.00
Total Assets	1,153,472.00	1,054,920.00	676,134.00	461,740.00
2.Equity and Liabilities				
Capital and Reserves	336,264.00	370,162.00	348,606.00	317,107.00
Ordinary Share Capital	58.00	55.00	55.00	54.00
Share Premium	253,519.00	228,359.00	220,920.00	294,033.00
Distributable Reserves	78,278.00	144,788.00	127,277.00	23,114.00
Non-Distributable Reserves	4,409.00	-3,040.00	354.00	-94.00
Minority Interest	60,960.00	55,814.00	-	86.00
Non-Current Liabilities	125,230.00	112,959.00	35,507.00	334.00
Interest Bearing Liabilities	86,656.00	62,290.00	15,763.00	332.00
Amounts due to Vendors	25,667.00	46,168.00	18,921.00	-
Deferred tax liabilities	12,907.00	4,501.00	823.00	2.00
Current Liabilities	631,018.00	515,985.00	292,021.00	144,213.00
Accounts Payable	562,666.00	417,076.00	268,621.00	140,393.00
Amounts due to Vendors	46,563.00	60,999.00	17,813.00	-
Tax Liability	21,789.00	37,910.00	5,587.00	3,820.00
Total Equity and Liabilities	1,153,472.00	1,054,920.00	676,134.00	461,740.00
No of Shares in Issue	575,046.00	554,123.00	546,321.00	540,678.00
Net Asset Value per Share(cents)	58.48	66.80	63.81	58.65
Return on Equity	17.56	28.68	29.67	29.16
Share Price(Cents)	85.00	240.00	294.00	350.00
Market / Book Ratio	1.45	3.59	4.61	5.97

SHARE PRICES AND ALSI : ABRAXAS, AST Ltd AND AST GROUP Ltd

Appendix E

MONTH	SHARE PRICE(CENTS)		ALL SHARE INDEX
	ABRAXAS	AST GROUP LTD	
SEPT'97	142		7123.3839
OCT'97	142		6589.1185
NOV'97	166		6326.261
DEC'97	175		6202.3106
JAN'98	265		6550.2842
FEB'98	425		7095.6884
MAR'98	570		7578.8788
APR'98	691		8235.4571
MAY'98	675		7629.5629
JUN'98	600		6771.6058
JUL'98	620		7020.4256
AUG'98	450		4923.3547
SEPT'98	275	90	5098.5976
OCT'98	375	152	5828.3213
NOV'98	371	220	5620.8586
DEC'98	340	200	5430.4833
JAN'99	320	330	5799.1251
FEB'99	299	365	5914.6278
MAR'99	330	398	6382.5393
APR'99	375	495	7064.6947
MAY'99	309	400	6488.7809
JUN'99	280	350	7047.9641
JUL'99	232	275	7095.913
AUG'99		240	6938.1106
SEPT'99		185	6855.4998
OCT'99		210	7153.1347
NOV'99		294	7552.6315
DEC'99		354	8542.785
JAN'00		417	8475.3354
FEB'00		419	7992.3559
MAR'00		350	7957.233
APR'00		295	7445.1047
MAY'00		285	7364.1705
JUN'00		330	7709.6692
JUL'00		325	7737.5694
AUG'00		326	8489.0558
SEPT'00		310	8274.2315
OCT'00		270	8111.4685
NOV'00		263	7804.5435
DEC'00		280	8326.1864
JAN'01		305	9071.8383
FEB'01		276	9013.4157
MAR'01		234	8158.8594
APR'01		250	8977.6715
MAY'01		233	9389.6374
JUN'01		250	9222.6279
JUL'01		243	8556.9276
AUG'01		260	8985.6993
SEP'01		225	8126.1149
OCT'01		233	8543.2276
NOV'01		230	9440.7533
DEC'01		230	10441.6825

MONTH	SHARE PRICE		ALSI
	ABRAXAS	AST-GROUP LTD	
JAN'02		200	10313.8693
FEB'02		118	10814.6265
MAR'02		97	10948.6827
APR'02		105	11029.7054
MAY'02		108	11219.26
JUN'02		85	10657.73
JUL'02		66	9239.02
AUG'02		56	9677.26
SEPT'02		45	9465.33
OCT'02		35	9376.23
NOV'02		27	9563.74
DEC'02		27	9,277
JAN'03		21	8798.35
FEB'03		15	8402.09
MAR'03		10	7679.88
APR'03		9	7510.4
MAY'03		14	8564.33
JUN'03		16	8352.2

Appendix E (Cont'd)

AST GROUP LTD & ABRAXAS SHARE PRICE PERFORMANCE

Appendix F

