

**FINANCIAL STATEMENTS AND
SUCCESS OF RIGHTS ISSUES AT THE
NAIROBI STOCK EXCHANGE:
1998 – 2002**

UNIVERSITY OF NAIROBI
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BY

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DECLARATION

This research project is my original work and has not been presented for a degree in any other University.

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This research project has been submitted for examination with my approval as the University supervisor.

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DEDICATION

**To my parents the late
Staanslaus Nyangweso and
Bernedette Anyango**

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ABSTRACT

The study set out to determine the role financial ratios help in forecasting the success or failure of a rights issue.

This is a number of companies at the Nairobi Stock Exchange have failed in their attempt to raise capital through a right issue. There is no evidence to be relied on in explaining failure of these companies to raise the required capital through a rights issue.

The approach in this study is to compare ratios that capture performance and financial position of the firms that offered a right issue before and after the right issue. The three year (at times five years) average before and after the issues are compared to decipher information useful in explaining the success or otherwise right issue.

The findings show that the successful firms performance and financial ratios outperformed the less successful ones. The ratios that have higher discriminating power were return on equity, debt equity ratio, dividend payout ratio, growth in dividends and earnings net worth to total assets.

The one that had poor explanatory powers are growth in total assets, profit margin, cash flow to debt.

The tentative conclusion of the finding is that investors may rely on ratios extracted from financial statements in making the decision to exercise their right or not.

CHAPTER ONE

1.0 INTRODUCTION AND BACKGROUND

1.1 BACKGROUND

Raising capital through issuance of securities such as shares and bonds is a complex and costly exercise. The first problem is that of convincing investors to risk their funds in the firm for a promise of better returns and or increase in their wealth in the future. The investor and the issuing firm are aware that the future is uncertain and that both of them are assuming some risks. Secondly the issuing firm has to go through a number of stages before securities are issued to the investor. A capital issue (share or bonds) would require that the issuing firm negotiate with underwriters and investors, prepare an acceptable prospectus, register the issue with Nairobi Stock Exchange, Capital Markets Authority, Treasury and in some cases the Central Bank of Kenya. The issuing firm enters into arrangements with a number of commercial bank and brokers to act as its agents in issuing and collecting subscription forms. The prospectus useful in marketing the issue contains the issue price. A descriptive or fair security price is critical to the success of a capital issue.

In a security issue life cycle we can identify a decision interval. The decision interval refers to the time from the registration of a capital issue to the point at which the issue is completed or withdrawn. The potential investor can decide whether or not to participate in the issue before the issue is completed or withdrawn. To make the decision to buy or not, investors seek information that they can use in modeling their decisions. In financial management it is accepted that the investors' objective is to maximize return while minimizing risk. Information plays a central role in such a process largely because what you know

might not surprise you. It is therefore not surprising that investors and their advisors associate information with reduction of uncertainty.

There is a controversy as to the role information should play in efficient capital markets. This is because the investor's ability to diversify out of a large portion of the risk associated with a single security's returns has potentially dramatic implications for the investors demand for security – specific information. The effects of diversification are potentially powerful, and the benefits of additional security – specific information with respect to improved parameter assessment may be minimal.

A role of financial information is to alter investor beliefs about security – specific parameters. For the under diversified investor, this includes beliefs about unsystematic returns, as well as the systematic portion of security returns. However, for an investor who considers only well diversified portfolios, the unsystematic portion of return is not of obvious interest, since that portion of return is diversified away. Therefore, the direct demand for financial information would appear to depend upon the class of portfolio strategies considered.

This study will establish the type of information used by investors in making the decision to invest i.e. the decision to subscribe for securities on offer by a firm. Specific attempt is made to gather evidence that help confirm that information contained in financial statements is useful to investors in deciding whether to subscribe for a share or not. The other source of information considered is the prospectus published by firms issuing securities for subscription. Financial statements contain information that is of interest to investors. From the financial

statement an investor could find information relating to a firm's profitability, liquidity and solvency. The assumption is that such variables are critical in deciding whether to subscribe or not and that by examining them we could be in a position to explain why a particular security issue failed or succeeded.

In the context of a share issue we have an initial public offer and a right issue. Initial public issue is when a company offers shares to the public for the first time. This study focuses on a right issue. In the case of a right issue, the current shareholders must be given the right of refusal in regard to the purchase of new shares on offer, Brealey and Myers (1977). The practice is to issue each current shareholder with a certificate indicating the number of new shares he or she is authorized to purchase. The number of shares an investor can purchase is proportional to the number of existing shares currently held by the shareholder. Issuing firms tend to price the new shares below the current market price of the share. This makes the right of some value. Whether the issue price is relevant or irrelevant is debatable.

The shareholder has three options available to him or her in relation to a right issue: exercise the rights and therefore buy the new shares; sell the rights in the market; buy a proportion of shares while selling some of the rights; or ignore the rights. Given that the rights are generally valuable, it is unlikely that an informed investor will allow it to lapse. It is possible that the rights might be worthless in which case the shareholder can do nothing about it.

1.2 Why a Rights Issue?

Many times companies find themselves in need of more funds for investment into profitable projects or for expansion purposes or to retire expensive debt. However

this will only be the case when equity capital is considered cheaper capital as a means for funding growth or retiring debt.

Other reasons why firm's opt for rights issues include, the conversion of shareholders loans into equity, also as a planned way of introduction of a strategic shareholder and to achieve a more wider distribution of shareholding in order to conform with the minimum of shareholders as required under continued listing requirement. Whatever source they select must appeal to investors who are considering subscribing for the shares or bonds.

When a firm has decided to sell new securities through rights offering, the concern is to ensure that the required funds are raised i.e. the offer is not withdrawn. Failure to do so would mean that the project is abandoned. Researchers have linked the success of a right issue to the subscription price. A low subscription price relative to the market price increases the probability of a successful rights offering; though, a low subscription price could be interpreted as a sign of weakness and thus be detrimental to the value of the share.

Share issue that is not a right issue has risk and control implication to the existing shareholders for the firm. Wider share distributions have the potential of lowering the amount of risk because it will be not be difficult finding buyers should there be a need to sell them. Whenever the existing shareholders want to keep control over the affairs of the firm, right issue is the most appropriate method to raise new capital. It is possible that some projects show extremely high risk profile that management may find it easy convincing the existing shareholders to provide the required funding than to invite general investing public. However, a wider ownership of the firms' shares allows the risk associated with the new project to be

spread across many shareholders who can in turn, diversify across different corporations. This diversification eliminates the unsystematic (diversifiable) risk of the project and hence, lowers the risks premium component in the cost of capital. At the same time, a stable, solvent closely held firm faced with a need to finance a new project that promises good return the owner/manager is likely to prefer a right issue.

Shareholders who do not exercise their rights stand disadvantaged. An important disadvantage is the dilution of control. Even shareholders who have exercised are disadvantaged because they have new faces in the company, who may agree or disagree with them. In developing markets, the control issue is probably the most important deterrent to going public and or not exercising a right. This effect should be most significant for privately held firms and closely held public firm's where family based ownership is very dominant and where information asymmetry between the owner/manager and outside investor is severe, Asquith and Mullins (1986).

A successful right issue increases the likelihood of a favorable rating of the firm by the market because it shows the confidence of the owners of the company in their own company. Where a rights offering stimulate an enthusiastic response from stockholders and from the investment market as a whole, the firm's opportunities for financing becomes more attractive. The benefit is that the financial manager may be able to engage in share financing at lower costs and under more favorable terms.

A related advantage is that the issuer's floatation costs associated with a rights offering are lower than the cost of a public floatation. The costs referred to here are

cash costs. For example, Smith (1977) found that the floatation costs of common stock issues during the period 1971 to 1975 were 6.17% on public issues compared with 2.45% on the right offerings.

1.3 Right Issue and Information Contained in Financial Statements.

Finance Managers face a major decision planning a rights offering which involves setting the subscription price which should be set below the market price and timing the issues for it to be successful. In which case the managers' understanding of investor perception of the future performance of the company is critical in fixing the subscription price. Though managers would provide information (in the prospectus) that could be relied upon by investors in making the investment decision, investors may resort to other sources of information. The investors may study the historical share price of the issuing firm, the quality of management or the profitability of the firm. The assumption in this study is that investors find financial statements to be containing information useful in evaluating a subscription price. Knowing the kind of information that moves investors' and/or prices is important to our understanding of corporate finance.

The finance literature considers the decision to issue securities as an irrevocable decision. Withdrawal is costly and damaging to the reputation of the firm. This would suggest that any share issue withdrawal should be investigated. If we assume that financial statements contain useful information then we may rely on the same to explain the collapse of the right issues.

Investors may look below the issue price in deciding whether to subscribe for the shares or not. The price is paid by the investors to have a share in the future earnings of the firm. In which case the investors are expected to look at the

fundamental of company (e.g. dividends, cash flow) in determining whether the price is in line with their expectations. Most of this information is found in financial statements.

When a company decides to raise finances through a right issue, the following information is contained in the prospectus that is given to its shareholders: -

- 1 The company's present owners – director's and number of existing shareholders.
- 2 How the company came into being.
- 3 The company's present earning per share (EPS ratio).
- 4 The company's present growth in equity
- 5 The company's dividend policy i.e. methods by which a company pays its dividend to its shareholders such as interim and or final dividend and the rate of such dividends.
- 6 The company's future prospectus in particular contemplated investments and expansion programmes.

1.4 Right Issue – Recent Issues at Nairobi Stock Exchange.

In the recent past, Kenyan companies have not been very successful in their right issues. This have the effect of forcing companies that would find it cheaper raising capital through a share issue resort to other sources that turn out to be costly. Kenya Breweries Limited now known as East African Breweries Limited undertook a rights offering through Nairobi Stock Exchange in 1997. The results of the offer was not encouraging since local shareholders subscribed for a meager eight percent (8%) of the 28 million shares paving the way for Guinness PLC (UK), a new shareholder, to subscribe for the balance of ninety two percent (92%)

of the shares. Guinness PLC thus contributed Kshs. 1.4billion of the Kshs 1.5billion that Kenya Breweries Limited needed to put up Kibo Breweries in Tanzania. The local shareholders only contributed Kshs. 40million. The staffs and directors of this company declined to take up the offer. The participation of ordinary shareholders was therefore, very marginal.

The critical question in the Kenya Breweries Limited offer was: Why did local investors loose interest in the issue?

The controversial aspect was the offer price, which was Kshs. 53 while the open market price at the Nairobi Stock Exchange was between Kshs. 47 and Kshs. 49. It appears that many shareholders did not find merit in taking up the offer when they can get the same share at a lower price in the market. The question is: was this company's share available in the market at those numbers?

Total Kenya Limited launched a multi million shillings (1.275 billion) right issue to bring down its crippling short-term debt in 2002. Total (K) Limited valuation at the Nairobi Stock Exchange suffered in the period preceding the rights issue to Kshs. 20 from Kshs 49 resulting in a loss of sixty-three (63%) in its market capitalization (or in shareholders wealth), from KShs 2.7billion in 1999 to Kshs. 1billion in 2001. Before the right issues the net financing cost of this company was to the tune of over Kshs. 400million a year. Total's profits cover for interest payments was slightly two times. The short-term debt was almost four times its shareholder's funds. Total's earnings only needed to fall by forty four percent (44%) for the company to start experiencing pressures on servicing debt. This shows that investors' lost as a result of right issues.

The Standard newspaper group also launched a rights issue in 2001, which was not a success. The purpose of the issue was to raise equity capital to further fast track expansion of the group, to convert shareholders debt into equity, to reduce creditors and to provide working capital. The ratio of the rights issues was six new shares for every one held, with the rights priced at Kshs. 5.85 a share and raised Kshs. 306,080,775.

The successful rights issues at the Nairobi Stock Exchange between 1989 and 2002 are the following: -

Name of the company	Amount raised
ICDC	Shs. 70,966,196
EA Portland cement	Shs. 1,008,000,000
Total Company Ltd.	Shs 1,275,086,508
Barclays Bank (K) Ltd	Shs. 88,000,000

Right issue between 1989 and 2001 at NSE**Amount to be raised**

Year	Company	No. of shares	Amount raised	Sponsoring Broker
1989	Barclays Bank	2,050,000	88,000,000	
1990	ICDC	5,069,014	70,966,196	
1991	Marshalls	1,827,000	21,475,475	
1992	KFB	2,719,707	44,875,000	
1993	EA Portland	72,000,000	1,008,000,000	Shah Munge
1994	EABL	28,080,675	1,488,275,775	Kestrel Capital
1995	ICDCI	9,419,476	282,584,280	Dyer & Blair Ltd
1996	Unga	5,201,450	82, 000,000	
1997	Pan Africa Insurance	24,000,000	516,000,000	Suntra Stocks Ltd
1998	Kenya Orchards	7,2000,000	36,000,000	Hall securities
1999	Standard Newspaper	76,000,000	306,000,000	
2000	Total Company Ltd.	76,871,154	306,080,775	CFC financial Services
2001	Total Company Ltd	70,030,000	1,275,086,508	Shah Munge & partner

The above table shows right issue that has been undertaken through Nairobi Stock Exchange from 1989 to 2002.

Out of 52 listed companies in the exchange only 12 companies have undertaken right issue as way of raising finance. This number is small as only 23% which raises the question why right issue is not an attractive means to companies who need to raise additional finance at the exchange? Is it because the companies that have undertaken right issue at Nairobi Stock Exchange have not been successful and why. Which is the question this study sets out to determine.

1.5 Statement of the problem

When there is under subscription, a firm would be left exposed to debt as a form of financing its operations and more importantly, its investment programs. Debt could turn out to be an expensive source of capital when the project under consideration is extremely risky or there is a short fall in cash flows. Debt enhances the chances of a problematic firm to bankruptcy and liquidation. Our local economy is awash with examples of firms who have painfully gone through this route as a result of over reliance on debt. House of Manji is a good example. Business week, nation Newspaper of 2001

While a number of companies at The Nairobi Stock Exchange have failed in their attempt to raise capital through a rights issue, there is lack of empirical evidence to be relied on in explaining this phenomenon. Identifying the information set, specifically the critical variables, which firms issuing shares and the investors rely on in reaching a consensus subscription price might help us solve this puzzle. Of specific interest is whether by relying on financial statements investors and managers can rely on information contained in financial statements to predict a success or otherwise of a right issue.

Investors can be asked through a questionnaire whether they look at the information items contained in financial statement or we can assume that they look at them and then proceed to determine the discriminating power. In the study the assumption is that financial statement contain useful information and that investors look at them. This will enable us determine empirically whether or not the information contained in financial statements is useful in predicting the success of a right issue.

Given that this study is an attempt to understand why rights issue fail, it is further useful establishing whether or not the use to which funds will be put to influence investors decision to subscribe for the new shares. We set to determine whether the information contained in the prospectus issued prior to a right issue relating to the use of the funds raised from a right have a bearing on the success of a right issue.

Drawing from the studies undertaken by Otieno (1987) and Beaver (1996) on the use of financial statements and financial ratios, we attempt to select the ratios that are useful in discriminating between firm's successful and those that would fail to realize full subscription in the right offering.

Following from the above, the following hypothesis emerges:

- 1 Financial statements contain information useful in predicting the success or otherwise of a rights issue.
- 2 Prospectus contain information useful in predicting the success or otherwise of a rights issue.

This study therefore sets out to suggest a predictive model that can help firms planning to undertake right offering thus minimizing the chances of under subscription.

1.6 Objectives of the study

Identify financial ratios that help forecast the success or failure of a right issue.

1.7 Assumptions of This Study

- ◆ That the limitations of the use of accounting numbers do not apply and therefore ratios can be used for estimation and prediction purposes.
- ◆ Where ratio analysis is done from financial statement variables unadjusted for inflation, distortions may arise causing difficulties in comparisons for example the value of the fixed assets will be overstated. For the purpose of this study, the assumption is made that there is no inflation and hence the value of money may remain constant.
- ◆ Accounting method choice is important factor affecting reported financial statement numbers, for example, LIFO (last in, first out) results in higher cost of goods sold than do other methods during inflationary periods. This study assumes that there is no effect on financial statement numbers of alternative accounting methods.
- ◆ That the variables used in the model are the only determinants of the likelihood of a failure of a rights offering. Other factors (non – quantifiable) such as the stock brokerage firm(s) that does the placement of the rights issued or the marketing promotion undertaken are held constant.

Agutu Evalyne unpublished research on stock split MBA research (2000)

1.8 Justification of the study

The findings of this study are of importance to companies who would have investment projects to be undertaken and are in need of funds to allow for such projects and are aware of the fact that internal generated funds are cheaper than external debts. To such companies the reason for success in rights issue would be important.

The model provides managers and shareholders with information necessary in facilitating their decision making process for instance on the timing of the rights offering.

The study would be beneficial to the finance managers in setting subscription price at the time of a rights issue.

CHAPTER TWO

2.0 LITERATURE REVIEW

Bhagat (1983) investigated the value of rights in a rights issue offering. For a sample of 211 sample proposals to remove charter provisions, which required rights offering, he found that in only four instances did shareholders turn down the proposals. He reports that stock prices declined by an average of thirty-four 34 percent when the proposal was announced (this is statistically significant at the 10% confidence level). The evidence indicates that removal of the rights provision from corporate charters has the effect of decreasing shareholders would vote in favour of the removal in the first place.

It is often said that issuing new stock through rights will depress the price of the company's existing common stock. It is logical that to the extent that a subscription price, is lower than the market price, there will be a "stock – split effect" on the market price of the common stock.

Empirical analysis of the movement in stock prices during rights offerings indicates that generalization is not practical, that is, what happens to the market price of the stock ex rights and after the rights trading period depends on the future earnings prospects of the issuing company.

The pecking order theory (Myers 1984), indicates hierarchy in financing. It suggests that internal sources be preferred over other source because it is the cheapest. According to Myers, managers will first resort to using retained earnings for financing investments rather than debts or equity as external financing. The use of retained earnings is advantageous because it is a low cost of financing compared to the issuing of new shares. Moreover, the management retains control of the firm.

Rights issue on a pro-rata basis to existing shareholders is a cheaper source of funds for investment. They are a way of raising additional equity capital in a cost-effective way.

Floatation costs of common stock issues on rights offering with standby underwriting are at about the same level as fully underwritten issues. But, pure rights offerings have much lower floatation costs. Yet, during the five-year period studied, only 38 of 578 common stock issues were pure rights offerings. Smith (1977), who compiled the data, but reached the conclusion that none have validity. An additional possibility is that it was only some special circumstances of the rights offerings that resulted in their lower costs and that absent these characteristics, the cost of floatation of pure rights offerings would not be greatly different from underwritten issues.

Rock (1986) notes that in the case of initial public equity offers (IPOs), there is substantial under pricing [see Ibhotoson (1975) and Ritter (1984)]. He attributes this to the information disparity among potential investors. If investment bankers set the offer price equal to the expected after market price then those offers that were ex-post over paid would be under subscribed. While ex-post under priced issues would be over subscribed.

Current events in the market for corporate control have revived analysis of the conflicts between managers and shareholders. Managers of publicly held company may allocate resources to activities that benefit them, but which are not in the shareholders best interest. For instance, Jensen's (1975) "free cash flow" hypothesis, suggest natural tendency of firms with excess cash flows to waste it rather than pay it out to investors. The "problem" as Jensen put it "is how to

motivate managers to disgorge the cash rather investing it below the cost of capital or wasting it on organizational inefficiencies". In which case the current shareholders may not take up right issue if they believe that the management have not identified viable projects or have in the past not employed the funds profitably. The past is captured in the financial statements whereas part of the future is captured in the prospectus.

In developed countries right issues are well planned and failure is not imagined. In simple such issues are insured. In that a company can ensure the complete success of a right offering by having an investment banker or a group of investment bankers "stand by" to underwrite the unsold portion of the issue. Most companies use a standby arrangement in rights offering. For this standby, the underwriter charges a fee that varies with the risk involved in the offering. Often the fee consists of two parts; a flat fee and an additional fee for each unsold share of stock that the underwriter has to buy Van Horne (1995). From the standpoint of the company issuing the stock, the greater the risk of an unsuccessful sale, the more desirable a standby arrangement. Although it is more costly, in essence, the underwriter sells a put option to the firm and its shareholders. If the stock price declines below the subscription price, the stock will be put to the underwriter at the subscription price Van Horne (1995). That is bad for the underwriter, but it all is in the nature of writing options. If the stock price remains above the subscription price, rights will be exercised and the underwriter will pocket the standby fee. Because of the risk, standby fees are significant and increase with the volatility of the stock. Therefore, the firm must pay for its put option. However underwriters too need a proper understanding of the investors' perception of a right issue. Established underwriters worried about their reputation will not handle a security issue unless they believe the facts have been presented fairly to investors.

The reputation hypothesis (Ross 1977) on the other hand postulates that the loss of reputation is one of the indirect costs associated with false signaling. Firms therefore reveal their information truthfully because it is prohibitively costly for low value firms to mimic the financial decisions of high value firms. Heinkel (1984) indicates that firms maintain their reputation so as to have the opportunity to signal favourable information in the future.

Underwriters sometimes obtain the option to purchase additional stock at the offering price known as a green shoe provision after an actual company; the option usually lasts several weeks after the offering. As with any option, the green shoe provision benefits the holder and works to the disadvantage of the issuer.

Another and less used means of increasing the probability that the entire issue will be sold is through over subscriptions Riley (1979). This device gives stockholders not only the right to subscribe for their proportional share of the total offering but also the right to oversubscribe for any unsold shares. Over subscriptions are then awarded on a prorata basis relative to the number of unsold shares.

Although the use of the over subscription increases the chances that the issue will be entirely sold, it does not assure this occurrence, as does standby agreement. It is possible that combination of subscriptions and over subscriptions will fall short of the amount of stock the company desires to sell.

The size of the capital outlay in relation to stockholders' existing ownership of the stock is an influence on the success of rights offering. Hirshleifer (1980) Stockholders are likely to be more willing to subscribe to an issue amounting to a

ten- (10) percent addition to the stock they now hold than to an issue amounting to a five (5) percent addition because of significant increase in their wealth. The mix of existing stockholders may also be a factor.

The balance between institutional and individual investors may also bear on the success of the rights offering. The current trend and tone of the stock market are influential too. If the trend is upward and the market is relatively stable in this upward movement, the probability of a successful sale is quite high. The more uncertain the stock market, the greater the under pricing that may be necessary in order to sell the issue. There are times when the market is so unstable that the offering will have to be postponed.

Firms failing in their share issues might resort to use of debt. Kraus and Litzenberger (1993) suggest a theory of the optimal capital structure by formalizing the argument that the corporate tax shield of debt is offset by increased expected bankruptcy costs. Increases in leverage increase the probability of bankruptcy and thus increase expected bankruptcy costs.

Warner (1977) argues that bankruptcy can take two forms namely direct and indirect costs. Indirect cost include lost sales, lost profits, costs associated with restrictions on the firms borrowing and higher compensation that managers demand because of higher probability of unemployment.

The information disparity hypothesis has implications for packaging a security sale. If potential investors are concerned that the issuing firm has more precise information about the value of the securities than they do, this creates a derived demand for bonding and investors might prefer to subscribe for debt as opposed to equity.

Myers and Majluf (1984) indicate that a firm issues new equity only when managers expect unfavourable states to occur. In this respect rights issues serve in concealing the management's inability to generate cash flow. In Myers and Majluf's argument, potential investors in securities have less information than management, and management tends to issue securities when the market's assessment of their value is higher than its own. In other words, managers are more likely to issue debt or preferred when they believe the common stock is underpriced in the market and to issue common when it is believed to be overpriced.

This would be particularly true with common stock where investors have only a residual claim to income and assets.

This implies that where the potential information disparity is greater, the derived demand for bonding is greater. Smith (1986) argues that an underwritten offer is better bonded than a rights offer. The signaling hypothesis (Ross, 1977) developed from the Spence signaling model holds that there is information asymmetry between managers and the investors. Managers therefore use their financial decisions, such as rights issues, to convey favorable information to the investors. The attention and the reputation hypothesis are both offshoots of the signaling hypothesis.

2.1 Financial Information and Rights Issue

Financial planning, analysis and decision-making are to a large extent based on the information derived from financial statements. Financial statements information is of importance especially in improving the quality and speed of the decisions to be made. The availability of competing information sources and the potential of the information to reduce uncertainty both influence whether this improvement is expected to occur (Foster, 1986). From the investors point of view, predicting the future is what financial statement analysis is all about, while from the management's point of view, financial statement analysis is useful both as a way to anticipate future conditions and more importantly as a starting point for planning actions that will influence the future courses of events.

2.2 The Role of Financial Information

The value of information is personal and subjective and can vary across investors as their personal characteristics differ. This leads to heterogeneity in the demand for financial information across investors.

To be able to appreciate the role of Information in Investment decisions the decision – theoretic characterization involves the following components: -

1. Acts
2. States
3. Consequences
4. A Preference function
5. A Probability distribution over states

6. An Objective function

Acts

One element of theory of choice is that more than one action by the decision-maker is feasible. In the investor setting the action choice is described by the set of alternative portfolios and by the set of current consumption choices. Investment is the act of giving up current consumption in exchange for claims to future, uncertain consumption. To amplify this point, the choice is often artificially split between two elements.

- I. The decision of how much to invest versus how much to consume (the consumption investment decision)
- II. Given the amount to be invested the decision of how to allocate total investment among the various securities. (i.e. portfolio selection decision). In principle, these decisions are inter related and are made simultaneously, although they are commonly treated as if they were separate.

States

Information has potential value because uncertainty exists about the future. Uncertainty is characterized by a description of the set of mutually exclusive and collectively exhaustive possible occurrences called states. Each state describes one possible scenario that could occur in the future. The description of each state is extremely rich and includes all aspects of the state of interest to the investor. This presumably not only includes descriptions of economy – wide events and events of general interest but also those aspects of the state that are of particular interest to that individual investor.

Consequences

Associated with each state is a set of consequences that fully describes those aspects of the state that are of importance to the investor. The consequences are described in terms of the consumption bundles that accrue to the investor in each state.

The consequences are also often described in terms of cash flows e.g. interest payment, or dividend payments not directly in terms of consumption.

Preference

The investor behaviour is characterized such that he/she maximizes a preference function.

Belief

The investor is characterized as if assessments are formed regarding the probability of each state occurring. These probabilities are subjective and personal to the investor. They are based upon the entire experience of the investor, including training and education. Beliefs are also conditional upon what information the investor has. Beliefs are a critical element of the decision setting and the role of information is its potential to alter investor's beliefs.

Studies on the uses of financial statements, Otieno (1987) Beaver (1996), assume that such statements contain useful information. Based on this assumption, these statements have been used for various purposes, some of which include; forecasting firm performance, estimating or predicting firm specific variables such

as risk return, dividend yield, and corporate failure. Other objectives of financial statements include providing information on the changes in economic resources and variables, as well as providing information on the obligations and performance of the firm.

Financial statements are preferred over other competing sources of information on firms operations on various grounds (Foster, 1986). This is because financial statements focus directly on the variables of interests are certified by auditors and hence are reliable that the statements can be obtained by investors at a comparatively low cost and is a more timely information source.

Analysts have focused on the predictive capability as well as the diagnostic role of the accounting numbers derived from the financial statements and used them extensively as a tool in financial analysis. These numbers are believed to form a critical background on the item(s) of the user's interest. However, there are mixed views on the power of the ratios in their use for prediction purposes.

Otieno (1987) reports that Beaver (1966), focused on whether ratios discriminate between failed and non-failed firms. Beaver (1966) examined the predictive power of thirty different ratios and established that ratios can be used to predict corporate failure as early as five years prior to the failure.

On the contrary, Johnson (1970) held that ratios do not contain information about alternative strategies and the investing economic conditions, such as mergers, deferrals, confronting management and investors.

It can be shown that under fairly general condition decision – making behavior under uncertainty can be characterized as if the decision-makers choose the act that maximized expected utility. The theory does not imply that the decision-maker literally forms probability assessments and preferences for outcomes. It merely states that if the decision-maker obeys some general axioms of consistency, choice behavior can be described as if the decision-maker were solving such an optimization problem, Savage (1972). A potential conclusion is that the investor will select that portfolio and current consumption that has the greatest expected utility.

2.3 Financial information and investments

1. Financial information can affect the distribution of wealth among investors. Differential access to the information may permit more informed investors to increase their wealth at the expense of the less informed.
2. Financial information can affect the aggregate level of risk incurred and can affect the distribution of the risk among the constituencies. For example, the incentive contracts between investors and management, in response to concern over moral hazard also determine how risk is shared between them. Similarly, legal liability imposed on management for unfavorable outcomes can influence the risk – reward trade off made by management in project selection and can affect the aggregate level of risk taking in the economy.
3. Financial information can affect the rate of capital formation in the economy with a resulting reallocation of society's wealth between consumption and investment.

4. Financial information can also affect how investment is allocated among firms. Disclosure may alter investors' beliefs about the relative rewards and risks associated with particular securities.
5. Financial information can alter the incentives of management to undertake certain projects [Axelson (1975)]

These and other examples are documented in Horngren (1972, 1973), Armstrong (1977), Rapport (1977), Zeff (1978) and Beaver (1966).

Ratios have also been used to determine the extent to which a firm has used its long term solvency by borrowing funds; the operating efficiency and performance of the firm, the extent to which the firm is utilizing its assets in generating sales revenue and the ability of the firm to meet its current obligations. Other practical applications of the ratios have been in credit and security analysis.

Security analysis focuses on the long-term profitability of the firm. Credit analysis on the other hand employs the use of current/quick – asset ratio to establish the firm's ability to pay its debts and the debt/equity ratio to determine the firm's survival in the long run.

Altman (1968) focused on credit analysis. He combined a set of ratios to form a single measure important in predicting corporate bankruptcy. His study was based on 66 firms, half of which went bankrupt. He establishes 5 ratios as being efficient in predicting corporate bankruptcy. These include:

- ◆ Net working capital to total assets,
- ◆ Retained earnings to total assets,
- ◆ Earning before interests and taxes (henceforth abbreviated as EBIT) to total assets,
- ◆ Market value of total equity to book value of debt and,
- ◆ Sales of total assets.

He established the functions: -

$$Z = 0.012x_1 + 0.014x_2 + 0.033x_3 + 0.006x_4 + 0.999x_5$$

Where X_1 to X_5 represent the ratios; net working capital to total assets, retained earnings to total assets. EBIT to total assets, market value of total equity to book value of debt and sales to total assets respectively, and the Z is the discriminant function score of the firms. Altman concluded that ratios possess predictive value.

To derive meaning from the ratios, it is important to compare a firm's ratios with those of its benchmarks. Ratios would be meaningless without a reference point, Otieno (1987). Comparisons can be indicative of the extent to which a firm deviates from the norm (where the norm is the reference point, which in this case is the company used as the benchmark, or the industry average). Caution should be taken in using the ratios since there are limitations to their use.

These limitations include: -

The lack of an appropriate basis of comparison (the industry average may not be an appropriate reference point in the case where the companies use different accounting principles).

- ◆ The fact that interpretations are rendered inaccurate due to price changes.
- ◆ That the ratios are computed based on past data renders them inappropriate as predictors of future eventualities.
- ◆ They are computed at a point in time and thus suffer short-term changes.
- ◆ The differences in situations of two companies or of a company over the years render the comparisons difficult.

Studies such as that by Altman (1968) overcame the limitations of using single ratios in the analysis by looking at and combining various ratios into a single measure, a technique termed multiple discriminant analysis.

The weakness of the reputation or the attention hypothesis is that they do not explain why.

2.4 Other Related Studies

Early research by Benston (1966) and Ball and Brown (1968) explored the relationship between security price changes and earnings changes. Ball and Brown found a significant Association between the sign of the price changes and the sign of the earnings changes. For the years in which a firm experiences positive residual earnings change there tends to be a positive residual price changes and conversely, for the years in which there is a negative residual earnings change.

There are also other sources of information about future dividends and future earnings besides current earnings. Even though current earnings is one important source of information. It is not the only source of information. Announcements of litigation, contract, awards, petroleum discoveries, future capital expenditures, anticipated strikes, are examples of events that may affect future earnings but may

not be reflected in current earnings. Other sources of changes in stock prices that are not related to changes in future earnings or future dividends e.g. economy – wide events such as changes in interest rates or risk premiums.

In Bearer and Morse (1978) study, they found that stocks, which have high price – earnings ratios at the end of a year, have experienced low earnings growth in that year and high earnings growth in the subsequent year.

Certain events may permanently affect the level of accounting earnings but not in a way that implies a change in the value to the security. The nature of the financial accounting system is a major contributor to such event e.g. a company may change its accounting for depreciation. This can produce a change in earnings that is “permanent” in the sense that the level of earnings is expected to be permanently affected, but it may not be an event that alters the firm’s dividend – paying ability.

Revenues and many expenses increase with inflation, but some expenses such as depreciation (under historical cost) do not. The result is an increase in net income that is greater than the rate of inflation, even if nothing has changed in real terms, Hence, there can be a portion of the change in accounting earnings that is not associated with a change in dividend – paying ability.

Firms with net growth in asset acquisition will report higher net income under straight – line depreciation than under accelerated depreciation. This induces a difference in the level of earnings across firms that are unrelated to the future dividend – paying ability of the firm. Price - earnings ratios of firms that use

different depreciation methods would be expected to differ after taking into account other reasons for differing price – earnings ratios. Empirical evidence by Bearer and Dukes (1973) suggest that price – earnings ratios systematically differ as a function of the depreciation method used for annual report purposes.

Archibald (1972) examined the security price behaviour at times when firms changed their method of depreciation for annual report purpose from accelerated to straight line He finds that prices behave with no favourable impact on security prices.

Cassidy (1976) finds that there is no impact on security prices of firms that switched from normalization (or deferral) of the investment tax credit to flow-through, even though the effect of the change would be to make earnings greater than. They otherwise would have been if they had been computed under the old method.

Hong, Kaplan and Mandelker (1978) conclude that the use of the pooling treatment of accounting for business combination produced no apparent superior stock price performance relative to that of firms that used the purchase treatment of accounting for their business combinations, even though pooling will lead to higher reported earnings than the Purchase Treatment.

Duke (1976) finds that security price behaves as if investor implicitly regards research and development expenditures as assets, even though the firm entirely expensed this expenditure in the year of incurrence for annual report purposes

Forster (1977) finds that the security prices of property-liability insurance companies behave as if unrealized gains and losses on marketable securities are part of earnings

Even though such items are not reported as such by the insurance firm, Foster (1975) finds that “proforma “ earnings of life insurance that attempt to adjust for conservative accounting treatment of assets and liabilities under reported earnings show a higher association with security prices than reported earnings do.

Beaver and Dukes (1973) finds that price changes are more highly associated with a hypothetical class of earnings numbers using more accelerated depreciation than reported earnings.

This evidence is consistent with the contention that prices behave as if investors “look beyond” reported accounting earnings and attempt to make adjustments for the affects of events on earnings that do not imply altered dividend –paying ability. Such as depreciation method, Purchases vs. pooling research and development.

Several other studies have also examined whether earnings changes or changes in “cash flow” are more highly associated with changes in security price.

Beaver and Duke (1972) find that residual changes in prices are generally more highly associated with residual changes in earnings than with changes in cash flow.

Ball and Brown (1968) also analyzed residual “cash flow” changes and found that they were not as successful as residual earnings changes in “predicting” the sign of residual price changes both of these studies treat earnings and “cash flow” as mutually exclusive variables.

Patel and Kaplan (1977) formulate the issue differently and ask the question whether or not cash flow data possess information content over and above those annual earnings. Patel and Kaplan are unable to reject the hypothesis that no additional information content exists. However the results are difficult to interpret because “cash flow” can be viewed as a more primitive number than earnings [Ijiri (1978)]. The earning computation involved in” cash flow “ plus additional accruals such as depreciation. Hence from this perspective, a relevant issue is whether or not earnings convey additional information over and above that provided by “cash flow” .

The studies by Benston (1966) and Ball and Brown (1968) among others indicate that much of the price reaction associated with earnings occurs prior to the announcement of annual earnings. This “anticipatory” effect is consistent with the notion that prices reflect earnings expectations

The result in existing literature suggest that rights issue firms are selling over value equity the question of whether there was a better time to issue equity. When the level of over valuation might have been more extreme, was not explored. The issue is whether managers are able to fully exploit a level of asymmetric information that exists between inside and outside investors.

Loughram and Ritter (1995), Spiess and Affleck-Graves (1995), Ahn and Shirdasani (1999), and others studied managers ability to time the equity offering in a manner that the over valuation is the largest. Based on the assumption of asymmetric information about expected earnings, the values of a firms stock expected earnings, the values of a firms stock at various times around the rights offering are estimated using three earnings – based valuation models which are: -

- (1). Industry price to earning valuation
- (2). Valuation based on a residual income model, and
- (3). Valuation based on a model derived by Bakshi and Chen (1999) and extended by Dong (1999).

For each model the estimated, theoretical value, is compared to the prevailing market price. The difference between the two is an estimate of misvaluation, and as such proxies for valuation divergence that exists between managers and the market.

As a first test of whether firms time their equity offering to take advantage of over-valuation, the levels in years around rights issue are compared. The result show that rights issue firms estimated over valuation increases up to the equity offering and drifts down in the post issue period.

Another test they carried out involved assessing the economic importance of valuation level for firms financing behaviour. Logit regression modeling the probability of a rights issue is estimated. The result is consistent with earlier findings that the degree of misvaluation is a strong predictor of a firm's decision to issue seasoned equity. This was even after controlling for other firm characteristics. These results are in contrast to previous findings of Jung, Kim and Stulz (1996) and Hansen and Sarin (1998) who present evidence inconsistent with the timing motivation of equity issues.

Their study also found support for the hypothesis that firm's issues equity to take advantage of overvaluation, a small portion of firms in the sample (about 6-15%) appears to issue equity when they are under valued. A natural question arises: why would firms issue equity when they are undervalued? Analysis of this sub sample suggests that undervalued issuers experience less negative reaction around the filing date of the right issue. Undervalued issuers are also older and larger firms that issue opportunities less negative reaction around the filing date of the rights issue. Undervalued issuers experience less negative reaction around the filing date the rights issue. Undervalued issuers are also older and larger firms that issue proportionately less equity, have higher leverage, low interest coverage, and lower operating income at the time of the offering. Such firms are in general, financially constrained and have lower information asymmetry.

Based on the result of this on the economic importance of valuation level for firms financing behaviour they concluded that most firms that issue seasoned equity do so when their offer valuation is greatest. Another piece of evidence consistent with timing is that the estimated misvaluation is a significant predictor of equity issuance. Overall, the results are consistent with overvaluation of firm's equity playing an important role in corporate financing choices.

Lucas and McDonald (1990) extend the Myers and Majluf (1984) model and show that firms with undervalued stock tend to delay issue equity until its stock price rises to its fair value. Thus, when managers have private information about the firm value, they will postpone the equity offering to a time when the valuation of the stock improves.

The closest to studying firm-specific timing of rights issue is Jung Kim, and Stulz (1996) in which they investigate the ability of the pecking-order model, the agency model, Harris and Ravir (1991), in addition to the timing model to explain firms debt-equity decision and the stock price reaction to their decisions. Jung Kim, and Stulz (1996) use the actual long-term post issue abnormal returns as a proxy for management's assessment of a firms over valuation. That is, Jung Kim and Stulz (1996) are implicitly assuming that management has perfect foresight with respect to the five years future stock performance. Furthermore, they are assuming that the extent of the under performance over the 5 year post-issue period for the misvaluation at the time of the offering. They do not find support for the timing model. The long run abnormal returns, a proxy for the extent of misvaluation at the time of the offering are not related to the choice of issuing equity versus debt.

Related literature on earnings manipulation [Teoh, Welch and Wong (1998) and Rangan (1998)] suggests that firms that manage their earnings most aggressively via accruals perform the worst in the five years following the equity offering. This result suggests that a firm, at the time of the offering, might be attempting to influence investors' perception of its future earnings by overstating its earnings in the issue period.

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CHAPTER THREE

3.0 METHODOLOGY OF STUDY

3.1 The population

All the firms that have issued rights make the population. There are a total of twelve (12) right issues between 1989 and 2001.

3.2 Period Of the Study

The period between 1989 and 2002.

3.3 Data collection

This would be done by extracting the figures of the relevant items from the financial statements of the firms under the study for the period 1989 – 2002.

The financial statements would be obtained from the Nairobi Stock Exchange. From financial statements, the performance and financial position of the firms issuing rights shares is extracted.

Earning power (ROI), earning power provided by return on investment and return on equity, growth in assets, return on equity, liquidity ratio, financial risk, earning per share, earning yields, dividend yields, growth in capital reserves and NSE index GDP.

3.4 Data analysis

In this study successful firms in right issue are the ones that are able to raise the exact amount of funds or exceed the targeted amount of funds and that the offer is not withdrawn.

While unsuccessful firms are the ones who are not able to raise the full amount of funds as a result of shareholders allowing for the rights to lapse.

The data available on the firms that have issued rights is available. However, for each firm that has issued rights data would be extracted for the preceding period before the period on which rights issue is done to determine whether any signal of rights issue success or failure can be discerned by comparing the average ratio before the right issue with that after the right issue. One would expect the performance of the firms that successfully issued the rights to be superior to those after that were not successfully. Specifically the change in performance will be different between the successful and less successful. The procedure adopted in this study is: -

1. Calculate the averages of the variables in the study before and after study, at least three (in some cases five) years before and after the rights issue.
2. Calculate the change in the ratio
 - ◆ Market as a whole
 - ◆ Successful group
 - ◆ Unsuccessful group
3. Find out the differences in the ratio between the period before and the period after the issue.

Based on the financial statements of the companies that undertook rights issue, the following ratios can be calculated for the period of one (1) year before the rights issue and one (1) year after the right issue.

Cash flow to debt ratio, debt to equity ratio, dividend payment ratio, growth to dividends, growth to earning after tax, growth in total assets, network to total assets, profit margin ratio, return on equity, return on total assets, total debt to total assets

After the ratios have been calculated for the two periods, then, their statistical mean and standard deviation would be calculated so as to be able to obtain percentage change and see if the change is significant or not between the companies that succeed and those that did not succeed in right issue.

3.5 Study variables

Paid-up share capital and retained earnings

They form the owners' claims to the net assets of a business entity. Retained earnings are the total amount of a company's net income less its net losses and dividend declared since its inception. Earnings/accumulated profits arise from the use in the business of the funds entrusted to the company, and represent a surplus accruing to the shareholders out of which dividends may be paid to them, and which if not distributed, is ultimately attributed to the common shareholder. These earnings indicate the financial performance as well as the growth prospects of the company. For growth companies, they would record success in right issues as opposed to non-growth companies who are not employing capital efficiently. This variable is useful in computing return to shareholder or return on equity (ROE).

Dividend

Represent the return on the investor who puts his/her money at risk in the company. It is dependent on the level of earnings.

A high earning power therefore implies that the earnings will increase. The earning power is provided by the return on investment (ROI), which determines the efficiency of operations.

When investors who prefer dividends to capital gains or both evaluate whether or not to buy stock at a given price per share, they take into account how much return is expected in the form of dividend. If this is higher than interest offered by banks on fixed deposit then the investment on the share is viable hence success in right issue.

Dividend Yield

A statistic useful in comparing the dividend paying performance of the different investment opportunities is the dividend yield. Dividend yield is computed as the dividend per share divided by the market value per share and evaluates the shareholders' return in relation to the market value of the share. It also measures the payment that stockholders receive from their investments. Where dividends are constant and stock prices increase, dividend yield will decrease.

This reveals the company's retention policy in that if it is high it will signify liberal dividend policy. Companies with a history of paying dividends ensure success of right issue.

Dividend Pay Out Ratio

Using the dividend yield, the pay out ratio can be computed. One minus the dividend payout ratio gives the retention ratio. The dividend payout ratio indicates the percentage of earnings paid out in the form of dividends. The retention ratio when multiplied by the return on equity (ROE) gives the growth in owners' equity as a result of the retention policy.

Total debt and total assets

This ratio of total debt to total assets also referred to as the debt ratio measures the percentage of total assets financed by creditors/lender. Creditors prefer moderate

debt ratio, since the lower the ratio, the greater the cushion against creditors losses in the event of liquidation. If the debt ratio is too high, then the level of commitments of the shareholders in their firm is low. This might encourage shareholders to speculate. Optimal capital structure is desirable for success of a right issue because investors tend to avoid heavily indebted firms.

Time interest earned

This ratio is determined by dividing earnings before interest and taxes (EBIT) by the interest charges. This ratio measures the extent to which earnings can decline before the firm can fail to meet annual interest commitment. Failure to meet interest obligation may result in action by creditors, possibly leading to bankruptcy. The higher the ratio the less is the likelihood for default, a situation which existing shareholders may look at favourably in deciding whether to subscribe for right issue or not.

Profit margin ratio

This ratio shows the firm's ability to control production and operating decisions in order to earn required returns to the shareholders.

This ratio would be able to show whether there is a marked difference between the ratio for companies that succeeded in rights issue and those that did not succeed in rights issue and those that did not succeed and also whether it can be discerned that potential investors based their decision to invest in the right issue on it.

Return on total assets

This ratio shows the efficiency with which the firm uses its various funds to generate return to the providers of funds.

It can indicate to potential investors the companies that are prudently employing their funds. The higher this ratio is, the more attractive it would be to shareholders as according to Savage (1972), a potential investor would select that portfolio that presents the greatest expected utility.

Cash flow to debt ratio

This ratio shows the company's ability to meet its short term maturing obligations. The higher this ratio is, the better the financial position of the company, as it means that such a company is not experiencing financial distress in servicing its debt. Kraus and Litzenerg (1993) suggest a theory of the optimal capital structure by formalizing the argument that the corporate tax shield of debt is offset by the increased expected bankruptcy costs. Increases in leverage increase the probability of bankruptcy and thus increase expected bankruptcy costs.

Shareholders are therefore interested in knowing that the additional funds they are to provide to a company through rights issue would be invested in projects with higher return so as to add to their wealth that in the normal activities. Ijiri (1978) contends that "cash flow" can be viewed as a primitive number than earnings.

CHAPTER FOUR

4.1 RESULTS AND INTERPRETATION

The firms that succeeded in their rights issues have their means for the period before and after the rights issue almost the same while this is not true for the firms that did not succeed. This therefore means that ratio has information content, which is relied on by the shareholders.

Mean, standard deviation before and after the rights issue and Comparing the change in financial indicators after (1) and before (0) right issues

Table 1.0

Table 2.0

Table 3.0

Table 4.0

Table 5.0

4.2 INTERPRETATIONS

The test in this study has successful accounting information predicting performance after a right issue. The idea is to determine whether companies that were successful in their rights offering reported marked improved performance and financial indications after the issue. This requires that the ratios before and after the rights issue. We expect the ratios for firms that were not successful in their rights issue relative to those before the rights issue. The reliability of the financial ration in predicting rights issue is established for.

The list of firms used in the analysis is as contained in table one, which also contain the mean of each of the ratio calculated for each company before the rights issue represented by class (0) and after the rights issue represented by class (1).

The mean/average ratio of cash debt ratio for Barclays Bank represents an insignificant improvement after the rights issue, while for ICDC, there is a marked improvement on cash to debt ratio after the right issue and after the right issue as it is 1.97. it can be inferred that, these companies were successful in their rights issue because shareholders were able to predict well in advance that the firms would post a favourable cash to debt ratio. This supports Beaver (1966) position that ratios have predictive power. The same is true of East Africa Portland cement, which also succeeded in its rights issue.

The mean/average ratio of debt to equity ratio for Barclays Bank represents no change for the period before the rights issue and after the rights issue while for ICDC the ratio went down signifying the lower risk exposure to the shareholder. This is not true of companies like Pan Africa and Unga Ltd which did succeed in their rights issue.

Table 1.0: Mean for the period before and after the rights issue for each ratio

No.	Company	Class	Cdr	Der	Dpr	Gd	Get	Gta	Nwa	Roe	Rota	Tda
1	Barclays bank	0	1.0404	0.000	0.5691	0.540	0.2477	0.262	0.0762	0.2197	0.0334	0.00
		1	1.0676	0.000	0.7608	0.2718	0.275	0.1484	0.0978	0.3820	0.0553	0.000
2	EABL	0	0.5374	0.555	0.438	0.2578	0.189	0.263	0.4735	0.1157	0.09106	0.2512
		1	1.883	0.182	0.898	0.2191	0.651	0.0431	0.6446	0.0905	0.0904	0.1162
3	ICDC	0	-0.099	15.79	0.5880	0.275	0.216	1.65	0.449	0.1914	0.1028	4.65
		1	1.97	0.0202	0.5636	0.0877	0.223	0.445	0.8330	0.1857	0.1637	0.0165
4	Kenya Orchard	0	0.0517	9.13	0.000	0.6506	-1.97	0.283	0.2684	-1.313	-0.0689	0.4611
		1	0.1811	-30.4	-0.196	0.000	0.532	0.0338	0.0581	3.39	-0.0472	0.6937
5	Marshall E.A. Ltd	0	-0.092	1.495	0.219	0.0100	2.92	0.1965	0.2878	0.0609	0.0440	0.3759
		1	0.362	0.772	0.501	0.122	-0.371	0.094	0.4397	-0.146	-0.0260	0.2779
6	Pan Africa Insurance	0	11.37	0.00298	0.4108	0.1776	0.261	0.1713	0.6431	0.03359	0.03007	0.00196
		1	-4072	0.0123	0.2116	-0.293	-0.283	0.1278	0.65133	0.0219	0.0280	0.00803
7	E.A. Portland Cement	0	0.521	2.288	0.2167	0.667	0.378	0.508	0.2903	0.0953	0.0517	0.4464
		1	0.1395	3.274	0.0599	-0.125	0.77	0.1072	0.2336	-0.202	-0.0188	0.6544
8	Standard media group	0	0.530	0.627	0.440	-0.392	-1.46	0.1335	0.3437	-0.0043	0.0172	0.2653
		1	0.0080	-3.91	0.000	-0.333	-13.9	0.0889	-0.1776	1.40	-0.1350	0.1193
9	Total (K) Ltd	0	5.35	1.093	0.772	0.502	0.537	0.237	0.3371	0.2712	0.1412	0.3291
		1	0.0060	-2.030	0.000	-0.500	0.400	0.200	-0.0150	1.200	-0.0130	0.000
10	Unga Ltd	0	0.4397	0.287	0.301	0.484	-2.58	0.1189	0.8959	0.0067	0.0444	0.2477
		1	0.500	0.3803	0.0759	-0.276	-0.68	0.0046	0.9221	-0.1676	-0.1148	0.3358

Class – represents period before rights issue (1) represents after the issue

Cdr – Cash flow to debt ratio

Der – Debt to equity ratio

Dpr – Dividend payout ratio

Gd – Growth in dividend

Get – Growth in total asset

Roe – Return on equity

Rota – Return in total assets

Tda – Total debt to total asset

Gta – Growth in total assets

Table 2.0: Standard deviation before and after the rights issue for each ratio

Company	Class	Cdr	Der	Dpr	Gd	Get	Gta	Nwa	Roe	Rota	Tda
Barclays bank	0	0.0018	0.000	0.1200	0.193	0.109	0.195	0.0103	0.0281	0.00196	0.000
	1	0.0434	0.000	0.2215	0.2702	0.348	0.1396	0.0249	0.128	0.0142	0.000
EABL	0	0.1050	0.1664	0.2782	0.1918	0.368	0.420	0.0838	0.0445	0.01667	0.0520
	1	1.708	0.0906	0.570	0.1443	1.329	0.055	0.034	0.0532	0.0466	0.0538
ICDC	0	0.203	26.060	0.1890	0.295	0.366	4.43	0.366	0.0680	0.0958	10.09
	1	1.77	0.0314	0.2153	0.2101	0.611	0.884	0.0901	0.0747	0.0319	0.0258
Kenya Orchard	0	0.2711	21.39	0.000	0.045	5.04	0.638	0.1729	2.984	0.1044	0.1834
	1	0.0664	33.4	0.277	0.591	0.634	0.0853	0.0642	4.77	0.0643	0.00832
Marshall (EA) Ltd	0	0.312	0.636	0.259	0.0141	5.55	0.1375	0.1092	0.0530	0.0264	0.0487
	1	0.532	0.583	0.459	0.652	2.666	0.316	0.1227	0.328	0.1145	0.1161
Pan Africa Insurance	0	17.10	0.00505	0.1455	0.2007	0.638	0.1670	0.0318	0.01331	0.01202	0.00333
	1	10.85	0.00925	0.1645	0.569	1.099	0.1061	0.01968	0.0326	0.0301	0.00601
EA Portland cement	0	0.671	3.080	0.2242	1.633	1.323	1.083	0.0865	0.0916	0.0435	0.2074
	1	0.0357	1.907	0.1198	0.629	2.98	0.1561	0.0796	0.628	0.1537	0.1157
Standard Media group	0	1.141	0.501	0.850	0.458	4.39	0.2672	0.1123	0.2132	0.0727	0.1621
	1	0.0719	3.19	0.000	0.5777	25.8	0.1125	0.1170	2.41	0.1467	0.0361
Total (K) Ltd	0	15.20	0.884	1.227	1.514	1.802	0.382	0.0803	0.2334	0.1074	0.02617
	1	13.00	2.000	0.000	0.310	22.40	0.100	0.0700	3.20	0.0100	0.00200
Unga Ltd	0	0.1490	0.1059	0.391	1.311	6.88	0.2332	0.1441	0.0488	0.0723	0.0681
	1	0.961	0.1460	0.1760	0.641	3.03	0.1769	0.1349	0.1799	0.1755	0.1093

Class (0) represents period before rights issue (1) represents after the issue

- Cash flow to debt ratio
- Debt to equity ratio
- Dividend payment ratio
- Growth in dividend
- Growth in total assets
- Return on equity
- Return on total assets
- Total debt to total assets
- Networth to total assets
- Groth in total assets

The standard deviation for each ratio of study of the companies that undertook rights issue at the Nairobi Stock Exchange between 1989 and 2002 was calculated for the period before (0) and after (1) the rights issue as shown in table 2.

Barclays bank of Kenya the change in the ratios of study before and after the rights issue is not significant. This could explain why Barclays bank succeeded in their rights issue.

While for companies like Pan Africa insurance, Standard media group, Unga Ltd, EABL, Kenya orchard and Marshall (EA) Ltd, there is wide disparity in the ratios before and after the rights issue.

TABLE 3.0: COMPARING THE CHANGE IN FINANCIAL INDICATORS A AFTER (1) AND BEFORE (0) RIGHT ISSUE

Company	Status	Cdr1	Cdr0	Cdr%*	Cr1	Cr0	Cr%	Der1	Der0	Der%	Dpr1	Dpr0	Dpr%
1 BBK	Succ				1.07	1.04	0.03				0.76	0.57	0.34
2 EABL	UnSucc	1.88	0.54	2.5	1.21	0.89	0.36	0.18	0.56	-0.67	0.9	0.44	1.05
3 ICDC	Succ	1.97	-0.1	20.83	1.03	2.14	-0.52	0.02	15.79	-1	0.56	0.59	-0.04
4 KOC	UnSucc	0.18	-0.05	4.5	0.67	0.96	-0.3	-30.35	9.13	-4.32	-0.2	0	
5 MARC	UnSucc	0.36	-0.09	4.93	1.17	1.02	0.15	0.77	1.49	-0.48	0.5	0.22	1.29
6 PAN	UnSucc	-4.72	11.37	-1.42	1.83	1.46	0.25	0.01	0	3.14	0.21	0.41	-0.48
7 PORTL	Succ	0.14	0.52	-0.73	1.69	1.69	0	3.27	2.29	0.43	0.06	0.22	-0.72
8 SMG	UnSucc	-0.01	0.53	-1.02	0.74	1.21	-0.39	-3.91	0.63	-7.23	0	0.44	-1
9 Total	Succ		5.35			1.36			1.09				
10 Unga	UnSucc	0.5	0.44	0.14	0.97	0.88	0.1	0.38	0.29	0.32	0.08	0.3	-0.75
12 Average Change All*excluding ICDC				1.27			0.02			-1.23			-0.09
13 Average Change Unsuccessful				1.61			0.03			-1.54			0.02
14 Average Change Successful				10.05			0.03			-0.28			-0.38
15													
16 StDev of Change All*excluding ICDC				2.68			0.3			3.18			0.86
17 StDev of Change Unsuccessful				2.99			0.23			3.52			0.17
18 StDev of Change Successful				15.25			0.31			1.01			0.54
19 Cdr% is percentage change in this ratio for each company on comparing before and after right issue.													

1. Cash flow to debt ratio
2. Debt ratio to equity ratio
3. Dividend payout ratio

Debt to Equity ratio

This ratio measures the level of commitment of owners in their own company. It is relied on to estimate the risk exposure that lenders are subjected to. Managers may use right issue proceeds to retire debt or to invest in projects with positive net present value. From table 1 it is clear that the unsuccessful group experienced a decline of 2 percent (1.54%), in this ratio,

I. Successful firms, $R^1 > R^0$;

II. Unsuccessful firms, $R^1 < R^0$;

Where R^1 is the ratio after right issue; and R^0 is the right issue, suggesting that they used substantial part of the proceeds to retire its debt. The decline in this ratio for unsuccessful group was almost zero (-0.28%) percent, suggests that the right issue proceeds were used to fund new projects or replace old assets. Though retirement of debt could be a net positive project however, the investors in this market do not think so hence their reluctance to subscribe for shares in companies that they thought would use part of the proceeds to retire its debt.

Dividend Payout ratio:

This ratio gives an indication of the percentage of earnings paid out in the form of dividends. The average change for both groups was a decline of 0.09%. However, the average decline of this ratio for the group that succeeded in its rights issue was lower than the whole group, 0.38%. This suggests that the companies whose existing shareholders failed to take up the right issue reduced their dividends after right issue. The possible reason for dividend reduction was to fund projects identified in prospectus. While for the unsuccessful ones the percentage change was almost zero (-0.02%),

confirming investors confidence in the companies that succeeded in their right issues

This scenario is a pointer that financial statements have information content which potential investors relies on in making investment decision.

TABLE 4.0: COMPARING THE CHANGE IN FINANCIAL STATUS AFTER (1) AND BEFORE (0) RIGHT ISSUE CONTINUED

	Company	Status	Gd1	Gd0	Gd%	Get1	Get0	Get%	Gta1	Gta0	Gta%	Nwa1	Nwa0	Nwa%
1	BBK	Succ	0.27	0.54	-0.5	0.27	0.25	0.11	0.15	0.26	-0.43	0.1	0.08	0.28
2	EABL	UnSucc	0.22	0.28	-0.15	0.65	0.19	2.44	0.04	0.26	-0.84	0.64	0.47	0.36
3	ICDC	Succ	0.09	0.27	-0.68	0.22	0.22	0.03	0.45	1.65	-0.73	0.83	0.45	0.86
4	KOC	UnSucc				0.53	-1.97	1.27	-0.03	0.28	-1.12	-0.06	0.27	-1.22
5	MARC	UnSucc	0.15	0.01	14.31	-0.37	2.92	-1.13	0.09	0.2	-0.52	0.44	0.29	0.53
6	PAN	UnSucc	-0.29	0.18	-2.65	-0.28	0.26	-2.08	0.13	0.17	-0.25	0.65	0.64	0.01
7	PORTL	Succ	-0.25	0.67	-1.38	0.77	0.38	1.05	0.11	0.51	-0.79	0.23	0.29	-0.2
8	SMG	UnSucc	-1	-0.39	-1.55	13.94	-1.46	-8.53	0.09	0.13	-0.33	-0.18	0.34	-1.52
9	Total	Succ		0.59			0.54			0.24			0.34	
10	Unga	UnSucc	-0.46	0.48	-1.95	-0.68	-2.58	-0.74	0	0.12	-1.04	0.92	0.9	0.03
11														
12	Average Change All				0.85			-0.96			-0.7			-0.14
13	Average Change Unsuccessful				1.33			-1.46			-0.68			-0.3
14	Average Change Successful				-1.03			0.54			-0.76			0.33
15														
16	StDev of Change All				5.57			3.19			0.31			0.79
17	StDev of Change Unsuccessful				0.33			2.01			0.07			0.24
18	StDev of Change Successful				0.46			0.57			0.19			0.53
19														

1. Growth on dividends
2. Growth in earnings after tax
3. Growth in total assets
4. Net work to total assets

Growth in dividends:

On comparing the growth in dividend (Gd) before and after the right issue, the average change for both groups was an increase of (0.85%) as shown in table 2. However, the average change for the unsuccessful one was about one (1.33%) higher than (due to influence of Marshall) the average change for the successful one which was a decline of about one (-1.03%) percent. When Marshall is excluded, then the unsuccessful group post a negative growth in dividends, a signal that might influence investors decisions not to invest in this group of companies. However the low growth in dividends by successful firms can be interpreted to mean that potential investors consider dividend policy of the companies that they would invest in, and some prefer postponement of dividend now to allow for further expansion for a better dividend in future. It is a sign of clientele effect.

Growth in Earning After Tax:

This ratio measures the performance of a company and its management ability to generate earnings from assets available from one period to another. The higher it is the better the performance.

Table 2 shows that before and after the right issue, the change in the average growth in earnings after tax for both groups was a decline of about one (-0.96) percent. However, the average of this ratio for the group that did not succeed in its rights issue was lower than the whole group as represented by a decline of one point give (-1.46%) percent. The same ratio was, for the successful group increased by about a half (0.54%) percent.

Investors did not consider it worthwhile taking up investment in the group with no growth in earning after tax further demonstrating that financial statements convey valuable information to investor as proposed by Otieno (1987)

Growth in Total Assets:

On comparing growth on total assets before and after the right issue, the average change for both groups was a decline of 0.7%, while for the unsuccessful group the decline was (-0.68%) and for the successful group the decline was (0.7%, while for the unsuccessful group the decline was (-0.68%) and for the successful group the decline was (-0.76%). Even if the investors could have relied on this ratio, it is difficult commenting on how successful they were in using it to forecast future financial position of the firm. It is also a pointer that the firms would have put the funds to uses other than funding long-term assets

Net Worth to Total Assets:

This ratio shows the quality of the assets of a firm. Table 2 shows that the average change for both groups before trend after the right issue was a decline of 0.14% while the average increase for the successful group was positive 0.33% which is higher than that of the successful group which was a decline of 0.30%. The interpretation is that the wealth of the investors in successful group increased whereas those in the unsuccessful group declined. Again it is not by chance that firms take in right issue posted a decline in shareholders wealth.

TABLE 5.0: COMPARING THE CHANGE IN FINANCIAL INDICATORS AFTER (1) AND BEFORE (0) RIGHT ISSUE CONTINUED.

Company	Status	Pmr1	Pmr0	Pmr%	Roe1	Roe0	Roe%	Rota1	Rota0	Rota%	Tda1	Tda0	Tda%	
	Succ				0.38	0.22	0.74	0.06	0.03	0.65				
	UnSucc	0.07	0.06	0.09	0.09	0.12	-0.22	0.09	0.09	-0.01	0.12	0.25	-0.1	
	Succ				0.19	0.19	-0.03	0.16	0.1	0.59	0.02	4.65		
	UnSucc	-0.05	-0.05	0.15	3.39	-1.31	3.58	-0.05	-0.07	0.32	0.69	0.46	0	
	UnSucc	-0.03	0.01	-2.84	-0.15	0.06	-3.39	-0.03	0.04	-1.59	0.28	0.38	-0.2	
	UnSucc				0.02	0.03	-0.35	0.03	0.03	-0.07	0.01	0	3	
	Succ	-0.03	0.03	-2.04	-0.2	0.1	-3.12	-0.02	0.05	-1.36	0.65	0.45	0.4	
	UnSucc	-0.05	0	-44.9	1.4	0		-0.13	0.02	-8.84	0.12	0.27	-0.1	
	Succ		0.03			0.27			0.14			0.33		
	UnSucc	0	0.03	-1	-0.17	0.01	-25.96	-0.11	0.04	-3.58	0.34	0.25	0.3	
	Change All				-8.42		-4.21			-1.82			0.2	
	Change Unsuccessful				-8.08		-4.39			-2.3			0.4	
	Change Successful				-1.02		-1.57			-0.39			-0.2	
	Change All				17.91		9.3			3.06			1.2	
	Change Unsuccessful				0.04		0.55			0.05			0.1	
	Change Successful				0		2.04			1.15			1.0	
	Cash Flow to Debt Ratio													
	Class 0 represents the period before bonus issue and 1 period after the bonus issue.													
	Debt to Equity Ratio													
	Dividend Pay Out Ratio													
	Growth in Dividends													
	Growth in Earnings After													
	Growth in Total Assets													
	Net Worth to Total Assets													
	Profit Margin Ratio													
	Return on Equity													
	Return on Total Assets													

1. Profit margin ratio
2. Return on equity
3. Return on total asset

Profit Margin Ratio:

This ratio shows the firms ability to control production and operating decisions. Table 3 shows that the average change for both groups before and after the rights issue was a decline of about eight (8.42%) percent. While the average change for the successful group was a decline of about one (1.02%) percent, the average change for the unsuccessful group was a decline much low of about eight (8.08%) percent. The investors might have the profit margin ration of the successful group good as the decline was not as much as

for the unsuccessful group. How this is a difficult ratio to rely on because it varies from industry to industry taking into account risk interest in each industry.

Return on Equity:

On comparing the return on equity (Roe) before and after the right issue, the average change for both groups was a decline of about four (4.21%) percent. However, the average decline of this ratio for the group that succeeded in its right issue was low than the whole group, two percent (1.57%). The same ratio was, for the unsuccessful group declined by almost four percent (4.39%), slightly above the whole group but worse off than the successful one. This could be a pointer of reliance on this performance indicator ratio by potential investor. It is not by chance that investors down rated unsuccessful firms by not subscribing for shares in companies that did not perform well after the issue. It is like on the basis of their past performance they predicted no improvement in performance of failed firms.

Return on Total Assets:

This ratio shows the efficiency with which the firm uses its various funds to generate return to the providers of funds. Table 3 shows that the average change for both groups before and after the rights issue was as decline of about two (1.82%) percent and the average of this ratio for the group that did not succeed in its rights issue was low than the whole group about two (-2.3%) percent while the same ratio was for the successful group a decline of almost zero (-0.39%) percent.

CHAPTER FIVE: SUMMARY AND CONCLUSION

5.1 Summary and Conclusion

The aim of this study is to find out whether financial statements have information content that investors rely on making their investment decision. Our findings show that there are ratios that investors would have relied on in making the investment decision.

We find that a number of ratios that could be used to discriminate between firms that are likely to succeed in a rights issue, and the ones that are likely to fail. Ratios sensitive to a rights issue include return on equity, debt equity ratio, dividend payout ratio, growth in dividends and earnings, net worth to total asset. Growth in total assets does not tell much when it comes to discriminating between successful and unsuccessful right issues. Through the growth in earnings as a performance indication show a marked difference between successful and failed issue it is difficult relying on it given its level of appreciation.

The overall decline of the economy explains the decline in most of performance indicators used in this study. However it is clear that the decline is more pronounced in companies that were less successful in their right issues. And this suggests that investors may rely on information contained in financial statements in making investment decisions. This is an advantage that translates into cost savings (less searching) given that the financial statements are readily available.

5.2 Limitations of the study

It is sometimes difficult to identify the industry category to which a firm belongs due to diversification of firms across industries. This therefore makes industry analysis difficult.

Also ratios are normally calculated or computed from historical data and therefore are not accurate indicators of the failure. And also ratio cannot reflect management philosophy, which is non – quantifiable.

5.3 Suggestions for further research

- I. Further research can be conducted to test information content of the financial statements over a longer period of time.
- II. Further research can also be carried out using other parameters on predictability of success or failure of rights issue.

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APPENDIX 1

Dividend Yield

There is evidence in past studies that dividend yield forecasts returns. Fama and French (1988) find that Dividend Yield henceforth abbreviated as DY predicts monthly NYSE returns from 1941 – 1986, with t-statistics between 2.20 and 3.21 depending on the definition of returns (equal – Vs value – weighted; real Vs nominal). However, Stambaugh (1986, 1999) and Mankiw and Shapiro (1986) show that predictive regressions can be severely biased towards finding predictability. Nelson and Kim (1993) replicates the Fama and French tests, correcting for bias using bootstraps simulations and estimate that the P – values are actually between 0.03 and 0.33.

To improve on the predictive ability of Dividend Yield as a financial ratio tool then we incorporate information about DY's sample autocorrelation. The sample autocorrelation is strongly correlated with the slope estimate in the predictive regression, so any information conveyed by the autocorrelation helps produce a more powerful test of predictability. Incorporating this information into empirical tests has two effects: -

- ◆ The slope coefficient is often larger than Stambaugh's estimate
- ◆ The standard error of the estimate is much lower.

In combination, the two effects can substantially raise the power of empirical tests.

NB: DY predicts long – horizon returns more strongly, but the statistical significance is sensitive to the time period considered and small sample corrections.

The model of returns analyzed by Stambaugh (1986, 1999) and Mankiw and Shapiro (1986).

$$r_t = X + Bx_{t-1} + E_t \quad (1a)$$

$$x_t = O + Px_{t-1} + U_t \quad (1b)$$

Where r_t is the stock return

and X_{t-1} is the Dividend Yield (or other financial ratio)

Equation (1a) is the predictive regression and

Equation (1b) specifies an AR1 process for DY.

The residuals, E_t and U_t are correlated because positive returns lead to a decrease in DY. As a consequence, estimation errors in the two equations are closely connected:

$$B - B = y(p - p) + n1 \quad (2)$$

Where N is a random error with mean zero and y is a negative constant. Empirical tests are typically based on marginal distribution of B from equation (2) integrating over all possible values of $P - P$ and n . For example, the bias in B is found by taking expectations of both sides; the well known downward bias in P induces an upward bias in B (since Y is negative). Notice, however that this approach implicitly throws out information we have about $P - P$. Specifically, if we are willing to assume that DY is stationary, so on the sampling error in P is $P - 1$. In return, equation (2) implies that the bias in B is at most $Y(p - 1)$. This upper bound is less the standard bias - adjustment if P is close to one. When this occurs, empirical tests that ignore the information in P will understand DY's predictive power.

Empirically, using the information in P dramatically strengthens the case of predictability. When NYSE returns are regressed on $\log DY$ from 1964 – 2000, OLS slope estimate is 0.92 with a standard error of 0.48. Stambaugh's (1999) bias correction yields an estimate of 0.20 with a one sided P – value of 0.308. However, using the information in P , the bias – adjusted estimate becomes 0.66 with a t – statistic of 4.67, significant at 0.000 level. Predictability is also strong in sub periods. For the first half of the sample, 1946 – 1972, the bias – adjusted estimate is 0.64 with a P -value of 0.000. In short, by recognizing the upper bound on P , we obtain much stronger evidence of predictability.

Book to market ratio and earning price ratio also have significant predictive power. The tests with these variables begun in 1963 when compustat data is available. From 1963 – 1994, B/M and E/P forecast both equal – and value weighted NYSE indices.

Book to market ratio abbreviated as B/M is the ratio of book equity in the previous fiscal year to market equity in the previous month.

Earning price ratio, E/P is the ratio of operating earnings (before depreciation) to market value. Operating earnings is used because Shiller (1984) and Fama and French (1988) suggest that net income is a noisy measure of fundamentals; to ensure that the tests are predictive, accounting numbers would not be updated until months after the fiscal year.

Also to reduce selection biases, a firm must have three years of accounting data before its included in the sample (see Kathari, Shanker and Sloan, 1995)

APPENDIX 2

Cdr = Cash Flow to Debt Ratio

Cls = Class 0 represents the period before bonus issue and 1 period after the bonus issue.

Der = Debt to Equity Ratio

Dpr = Dividend Pay Out Ratio

Gd = Growth in Dividends

Get = Growth in Earnings After Tax

Gta = Growth in Total Assets

Nwa = Net Worth to Total Assets

Pmr = Profit Margin Ratio

Roe = Return on Equity

Rota = Return on Total Assets

Tda = Total Debt to total assets

Descriptive Statistics: BBKCr, BBKDer, BBKDpr, BBKGd, BBKGet, BBKGta, BBKNwa, BB

Variable	N	N*	Mean	Median	TrMean	StDev
BBKCr	15	0	1.0621	1.0418	1.0600	0.0401
BBKDer	15	0	0	0.00000	0.00000	0.00000
BBKDpr	15	0	0.7225	0.6557	0.7040	0.2166
BBKGd	14	1	0.3101	0.3004	0.3129	0.2722
BBKGet	14	1	0.2709	0.2178	0.2625	0.3219
BBKGta	14	1	0.1646	0.1445	0.1496	0.1453
BBKNwa	15	0	0.09345	0.08566	0.09323	0.02419
BBKRoe	15	0	0.3496	0.3172	0.3372	0.1325
BBKRota	15	0	0.05091	0.04850	0.05019	0.01554
BBKTda	15	0	0.00000	0.00000	0.00000	0.00000

Variable	SE	Mean	Minimum	Maximum	Q1	Q3
BBKCr	0.0103	1.0073	1.1442	1.0322	1.0884	
BBKDer	0.00000	0.00000	0.00000	0.00000	0.00000	
BBKDpr	0.0559	0.4321	1.2539	0.6066	0.8217	
BBKGd	0.0728	-0.1431	0.7298	0.1082	0.5623	
BBKGet	0.0860	-0.2487	0.8919	0.0438	0.4905	
BBKGta	0.0388	-0.01521	0.5245	0.0707	0.2158	
BBKNwa	0.00625	0.06259	0.12723	0.07194	0.11610	
BBKRoe	0.0342	0.1996	0.6598	0.2344	0.4326	
BBKRota	0.00401	0.03199	0.07929	0.03567	0.06562	
BBKTda	0.00000	0.00000	0.00000	0.00000	0.00000	

Descriptive Statistics: BBKCr, BBKDer, ... by BBKCls

Variable	BBKCls	N	N*	Mean	Median	TrMean
BBKCr	0	3	0	1.0404	1.0410	1.0404
	1	12	0	1.0676	1.0671	1.0660
BBKDer	0	3	0	0.00000	0.00000	0.00000
	1	12	0	0.00000	0.00000	0.00000
BBKDpr	0	3	0	0.5691	0.6196	0.5691
	1	12	0	0.7608	0.7431	0.7411
BBKGd	0	2	1	0.540	0.540	0.540
	1	12	0	0.2718	0.2005	0.2675
BBKGet	0	2	1	0.2477	0.2477	0.2477
	1	12	0	0.275	0.217	0.265
BBKGta	0	2	1	0.262	0.262	0.262
	1	12	0	0.1484	0.1445	0.1271
BBKNwa	0	3	0	0.07627	0.07791	0.07627
	1	12	0	0.09775	0.10341	0.09831
BBKRoc	0	3	0	0.2197	0.2078	0.2197
	1	12	0	0.3820	0.3791	0.3693
BBKRota	0	3	0	0.03345	0.03269	0.03345
	1	12	0	0.05528	0.05731	0.05514
BBKTda	0	3	0	0.00000	0.00000	0.00000
	1	12	0	0.00000	0.00000	0.00000

Variable	BBKCls	StDev	SE Mean	Minimum	Maximum	Q1
BBKCr	0	0.0018	0.0010	1.0383	1.0418	1.0383
	1	0.0434	0.0125	1.0073	1.1442	1.0312
BBKDer	0	0.00000	0.00000	0.00000	0.00000	0.00000
	1	0.00000	0.00000	0.00000	0.00000	0.00000
BBKDpr	0	0.1200	0.0693	0.4321	0.6557	0.4321
	1	0.2215	0.0639	0.4652	1.2539	0.6107
BBKGd	0	0.193	0.136	0.404	0.676	*
	1	0.2702	0.0780	-0.1431	0.7298	0.1026
BBKGet	0	0.1109	0.0784	0.1693	0.3261	*
	1	0.348	0.101	-0.249	0.892	-0.038
BBKGta	0	0.195	0.138	0.123	0.400	*
	1	0.1396	0.0403	-0.0152	0.5245	0.0546
BBKNwa	0	0.01031	0.00595	0.06523	0.08566	0.06523
	1	0.02499	0.00721	0.06259	0.12723	0.07196
BBKRoc	0	0.0281	0.0162	0.1996	0.2518	0.1996
	1	0.1283	0.0370	0.2310	0.6598	0.2687
BBKRota	0	0.00196	0.00113	0.03199	0.03567	0.03199
	1	0.01423		0.00411	0.03268	0.07929 0.04303
BBKTda	0	0.00000		0.00000	0.00000	0.00000 0.00000
	1	0.00000		0.00000	0.00000	0.00000 0.00000

Variable	BBKCl	Q3
BBKCr	0	1.0418
	1	1.1099
BBKDer	0	0.00000
	1	0.00000
BBKDpr	0	0.6557
	1	0.9079
BBKGd	0	*
	1	0.5138
BBKGet	0	*
	1	0.507
BBKGta	0	*
	1	0.2013
BBKNwa	0	0.08566
	1	0.12360
BBKRoe	0	0.2518
	1	0.4585
BBKRota	0	0.03567
	1	0.06800
BBKTda	0	0.00000
	1	0.00000

4.2 Regression Analysis: BBKCl versus BBKCr, BBKDer, ...

* BBKDer has all values = 0

* BBKDer has been removed from the equation

* BBKTda has all values = 0

* BBKTda has been removed from the equation

The regression equation is

$$\text{BBKCl} = 26.5 - 28.2 \text{ BBKCr} + 2.94 \text{ BBKDpr} - 1.79 \text{ BBKGd} - 0.370 \text{ BBKGet} - 0.976 \text{ BBKGta} + 28.7 \text{ BBKNwa} + 0.98 \text{ BBKRoe} - 1.5 \text{ BBKRota}$$

14 cases used 1 cases contain missing values

Predictor	Coef	SE Coef	T	P
Constant	26.52	17.37	1.53	0.187
BBKCr	-28.24	19.19	-1.47	0.201
BBKDpr	2.940	1.071	2.75	0.041
BBKGd	-1.7871	0.9036	-1.98	0.105
BBKGet	-0.3700	0.4623	-0.80	0.460
BBKGta	-0.9760	0.8422	-1.16	0.299
BBKNwa	28.71	38.05	0.75	0.485
BBKRoe	0.975	4.408	0.22	0.834
BBKRota	-1.51	43.29	-0.03	0.973

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S = 0.2608 R-Sq = 80.2% R-Sq(adj) = 48.4%

4.3 Analysis of Variance

Source	DF	SS	MS	F	P
Regression	8	1.37415	0.17177	2.52	0.161
Residual Error	5	0.34014	0.06803		
Total	13	1.71429			
Source	DF	Seq SS			
BBKCr	1	0.09226			
BBKDpr	1	0.03918			
BBKGd	1	0.70331			
BBKGet	1	0.09131			
BBKGta	1	0.27663			
BBKNwa	1	0.12595			
BBKRoe	1	0.04542			
BBKRota	1	0.00008			

* NOTE * All values in column are identical.

Descriptive Statistics: EABLCdr, EABLCls, EABLCr, EABLDer, EABLDpr, EABLGd, EABL

Variable	N	N*	Mean	Median	TrMean	StDev
EABLCdr	15	0	1.165	0.609	0.940	1.319
EABLCls	15	0	0.467	0.000	0.462	0.516
EABLCr	15	0	1.0396	0.9806	1.0221	0.2132
EABLDer	15	0	0.3814	0.3064	0.3771	0.2331
EABLDpr	15	0	0.653	0.592	0.600	0.484
EABLGd	12	3	0.2352	0.2364	0.2373	0.1586
EABLGet	14	1	0.420	0.237	0.298	0.967
EABLGta	14	1	0.1530	0.0632	0.0829	0.3096
EABLNwa	15	0	0.5533	0.5910	0.5572	0.1087
EABLPmr	11	4	0.06441	0.06102	0.06414	0.02810
EABLRoe	15	0	0.1040	0.1027	0.1032	0.0487
EABLRota	15	0	0.09074	0.09130	0.08945	0.03273
EABLTda	15	0	0.1882	0.1863	0.1891	0.0863

Variable	SE Mean	Minimum	Maximum	Q1	Q3
EABLCdr	0.340	0.331	4.933	0.524	1.213
EABLCls	0.133	0.000	1.000	0.000	1.000
EABLCr	0.0551	0.7646	1.5419	0.8740	1.1737
EABLDer	0.0602	0.0734	0.7457	0.2009	0.5892
EABLDpr	0.125	0.000	1.990	0.486	0.651
EABLGd	0.0458	0.0000	0.4500	0.1207	0.4072
EABLGet	0.258	-0.689	2.997	-0.094	0.643
EABLGta	0.0827	-0.0445	1.1915	0.0392	0.1205
EABLNwa	0.0281	0.3705	0.6857	0.4332	0.6574
EABLPmr	0.00847	0.02013	0.11113	0.04886	0.08785
EABLRoe	0.0126	0.0255	0.1919	0.0685	0.1391
EABLRota	0.00845	0.03309	0.16513	0.07460	0.10831

EABLTda 0.0223 0.0469 0.3183 0.1342 0.2563

Descriptive Statistics: EABLCdr, EABLCIs, ... by EABLCIs

Variable	EABLCIs	N	N*	Mean	Median	TrMean
EABLCdr	0	8	0	0.5374	0.5526	0.5374
	1	7	0	1.883	1.213	1.883
EABLCIs	0	8	0	0.00000	0.00000	0.00000
	1	7	0	1.0000	1.0000	1.0000
EABLCr	0	8	0	0.8893	0.8798	0.8893
	1	7	0	1.2114	1.1737	1.2114
EABLDer	0	8	0	0.5552	0.5540	0.5552
	1	7	0	0.1828	0.2009	0.1828
EABLDpr	0	8	0	0.4380	0.5453	0.4380
	1	7	0	0.898	0.632	0.898
EABLGd	0	5	3	0.2578	0.2727	0.2578
	1	7	0	0.2191	0.2000	0.2191
EABLGet	0	7	1	0.189	0.153	0.189
	1	7	0	0.651	0.321	0.651
EABLGta	0	7	1	0.263	0.083	0.263
	1	7	0	0.0431	0.0540	0.0431
EABLNwa	0	8	0	0.4735	0.4543	0.4735
	1	7	0	0.6446	0.6574	0.6446
EABLPmr	0	4	4	0.06103	0.05984	0.06103
	1	7	0	0.0663	0.0836	0.0663
EABLRoe	0	8	0	0.1157	0.1064	0.1157
	1	7	0	0.0905	0.1027	0.0905
EABLRota	0	8	0	0.09106	0.09141	0.09106
	1	7	0	0.0904	0.0862	0.0904
EABLTda	0	8	0	0.2512	0.2558	0.2512
	1	7	0	0.1162	0.1342	0.1162

Variable	EABLCIs	StDev	SE Mean	Minimum	Maximum	Q1
EABLCdr	0	0.1050	0.0371	0.3314	0.6689	0.4812
	1	1.708	0.646	0.536	4.933	0.609
EABLCIs	0	0.00000	0.00000	0.00000	0.00000	0.00000
	1	0.0000	0.0000	1.0000	1.0000	1.0000
EABLCr	0	0.0988	0.0349	0.7646	1.0765	0.8053
	1	0.1737	0.0656	0.9806	1.5419	1.1355
EABLDer	0	0.1664	0.0588	0.2109	0.7457	0.5023
	1	0.0906	0.0342	.0734	0.3064	0.0891
EABLDpr	0	0.2782	0.0984	0.0000	0.6838	0.1215
	1	0.570	0.215	0.434	1.990	0.581
EABLGd	0	0.1918	0.0858	0.0000	0.4500	0.0690
	1	0.1443	0.0545	0.0000	0.4286	0.1149
EABLGet	0	0.368	0.139	-0.501	0.593	0.050

	1	1.329	0.502	-0.689	2.997	-0.633
EABLGta	0	0.420	0.159	0.019	1.192	0.049
	1	0.0555	0.0210	-0.0445	0.1112	-0.0180
EABLNwa	0	0.0838	0.0296	0.3705	0.6498	0.4271
	1	0.0340	0.0129	0.5910	0.6857	0.6082
EABLPmr	0	0.00366	0.00183	0.05824	0.06620	0.05834
	1	0.0360	0.0136	0.0201	0.1111	0.0219
EABLRoe	0	0.0445	0.0157	0.0685	0.1919	0.0776
	1	0.0532	0.0201	0.0255	0.1604	0.0276
EABLRota	0	0.01667	0.00589	0.06394	0.11734	0.07943
	1	0.0466	0.0176	0.0331	0.1651	0.0423
EABLTda	0	0.0520	0.0184	0.1371	0.3183	0.2473
	1	0.0538	0.0203	0.0469	0.1863	0.0591

Variable	EABLCIs	Q3
EABLCdr	0	0.6112
	1	3.642
EABLCIs	0	0.00000
	1	1.0000
EABLCr	0	0.9484
	1	1.2926
EABLDer	0	0.6863
	1	0.2622
EABLDpr	0	0.6363
	1	1.380
EABLGd	0	0.4393
	1	0.3433
EABLGet	0	0.531
	1	1.726
EABLGta	0	0.297
	1	0.0809
EABLNwa	0	0.5021
	1	0.6679
EABLPmr	0	0.06490
	1	0.0910
EABLRoe	0	0.1508
	1	0.1302
EABLRota	0	0.10451
	1	0.1284
EABLTda	0	0.2800
	1	0.1550

Descriptive Statistics: ICDCdr, ICDCr, ICDCDer, ICDCDpr, ICDCGd, ICDCGet, ICDC

Variable	N	N*	Mean	Median	TrMean	StDev
ICDCdr	7	8	0.491	0.009	0.491	1.258
ICDCr	15	0	1.693	1.206	1.623	1.124
ICDCDer	15	0	9.48	0.03	5.23	21.26
ICDCDpr	15	0	0.5783	0.5622	0.5789	0.1927
ICDCGd	14	1	0.1945	0.1252	0.1728	0.2704
ICDCGet	14	1	0.219	0.017	0.171	0.464
ICDCGta	14	1	1.131	0.142	0.352	3.351
ICDCNwa	15	0	0.6024	0.7673	0.6168	0.3425
ICDCRoe	15	0	0.1891	0.1601	0.1886	0.0682
ICDCRota	15	0	0.1272	0.1444	0.1274	0.0810
ICDCTda	15	0	2.80	0.00	0.84	7.98

Variable	SE Mean	Minimum	Maximum	Q1	Q3
ICDCdr	0.475	-0.568	3.216	0.002	0.715
ICDCr	0.290	0.329	3.957	0.921	2.634
ICDCDer	5.49	0.00	74.22	0.00	4.57
ICDCDpr	0.0498	0.2653	0.8826	0.4383	0.7418
ICDCGd	0.0723	-0.1953	0.8448	0.0011	0.3900
ICDCGet	0.124	-0.360	1.371	-0.062	0.458
ICDCGta	0.896	-0.902	12.518	-0.002	0.598
ICDCNwa	0.0884	0.0620	0.9564	0.0963	0.8581
ICDCRoe	0.0176	0.1017	0.2833	0.1203	0.2570
ICDCRota	0.0209	0.0092	0.2431	0.0153	0.1972
ICDCTda	2.06	0.00	31.10	0.00	2.23

Descriptive Statistics: ICDCdr, ICDCr, ... by ICDCClS

Variable	ICDCClS	N	N*	Mean	Median	TrMean
ICDCdr	0	5	4	-0.099	0.005	-0.099
	1	2	4	1.97	1.97	1.97
ICDCr	0	9	0	2.136	1.486	2.136
	1	6	0	1.027	0.959	1.027
ICDCDer	0	9	0	15.79	0.04	15.79
	1	6	0	0.0202	0.0000	0.0202
ICDCDpr	0	9	0	0.5880	0.5622	0.5880
	1	6	0	0.5636	0.5349	0.5636
ICDCGd	0	8	1	0.275	0.257	0.275
	1	6	0	0.0877	0.1111	0.0877
ICDCGet	0	8	1	0.216	0.175	0.216
	1	6	0	0.223	0.011	0.223
ICDCGta	0	8	1	1.65	0.18	1.65
	1	6	0	0.445	0.142	0.445
ICDCNwa	0	9	0	0.449	0.479	0.449
	1	6	0	0.8330	0.8256	0.8330
ICDCRoe	0	9	0	0.1914	0.1601	0.1914

	1	6	0	0.1857	0.1811	0.1857
ICDCRota	0	9	0	0.1028	0.1104	0.1028
	1	6	0	0.1637	0.1563	0.1637
ICDCTda	0	9	0	4.65	0.02	4.65
	1	6	0	0.0165	0.0000	0.0165

Variable	ICDCCIs	StDev	SE Mean	Minimum	Maximum	Q1
ICDCCdr	0	0.263	0.118	-0.568	0.056	-0.283
	1	1.77	1.25	0.72	3.22	*
ICDCCr	0	1.211	0.404	0.840	3.957	1.063
	1	0.550	0.225	0.329	2.023	0.740
ICDCDer	0	26.06	8.69	0.00	74.22	0.00
	1	0.0314	0.0128	0.0000	0.0641	0.0000
ICDCDpr	0	0.1890	0.0630	0.3378	0.8826	0.4203
	1	0.2153	0.0879	0.2653	0.8665	0.3950
ICDCGd	0	0.295	0.104	0.001	0.845	0.004
	1	0.2101	0.0858	-0.1953	0.3846	-0.1238
ICDCGet	0	0.366	0.129	-0.271	0.744	-0.055
	1	0.611	0.249	-0.360	1.371	-0.146
ICDCGta	0	4.43	1.57	-0.90	12.52	-0.21
	1	0.884	0.361	-0.104	2.238	0.039
ICDCNwa	0	0.366	0.122	0.062	0.858	0.083
	1	0.0901	0.0368	0.7186	0.9564	0.7551
ICDCRoe	0	0.0680	0.0227	0.1042	0.2833	0.1332
	1	0.0747	.0305	0.1017	0.2792	0.1108
ICDCRota	0	0.0958	0.0319	0.0092	0.2431	0.0104
	1	0.0319	0.0130	0.1236	0.2046	0.1392
ICDCTda	0	10.09	3.36	0.00	31.10	0.00
	1	0.0258	0.0106	0.0000	0.0552	0.0000

Variable	ICDCCIs	Q3
ICDCCdr	0	0.032
	1	*
ICDCCr	0	3.386
	1	1.266
ICDCDer	0	31.64
	1	0.0589
ICDCDpr	0	0.7668
	1	0.7730
ICDCGd	0	0.415
	1	0.2571
ICDCGet	0	0.550
	1	0.626
ICDCGta	0	0.84
	1	0.683
ICDCNwa	0	0.811
	1	0.9177
ICDCRoe	0	0.2600

	1	0.2625
ICDCRota	0	0.2007
	1	0.1990
ICDCTda	0	4.26
	1	0.0467

Descriptive Statistics: KOCdr, KOCr, KODer, KODpr, KOGet, KOGta, KONwa, KOPmr, K

Variable	N	N*	Mean	Median	TrMean	StDev
KOCdr	13	1	-0.0159	0.0000	0.0220	0.2632
KOCr	13	1	0.9177	0.8295	0.9068	0.2434
KODer	13	1	3.06	0.86	1.87	26.34
KODpr	12	2	-0.0326	0.0000	-0.0000	0.1130
KOGet	12	3	-5.94	-0.08	-1.79	15.94
KOGta	12	2	0.230	0.008	0.141	0.591
KONwa	13	1	0.2182	0.1717	0.2235	0.2007
KOPmr	13	1	-0.0466	-0.0486	-0.0437	0.1028
KORoe	12	2	-0.53	-0.22	-0.34	3.56
KORota	13	1	-0.0655	-0.0780	-0.0549	0.0974
KOTda	13	1	0.4969	0.5675	0.5071	0.1889

Variable	SE	Mean	Minimum	Maximum	Q1	Q3
KOCdr	0.0730	-0.7248	0.2763	-0.0426	0.1623	
KOCr	0.0675	0.6506	1.3048	0.7001	1.1983	
KODer	7.31	-53.94	73.13	0.49	5.39	
KODpr	0.0326	-0.3914	0.0000	0.0000	0.0000	
KOGet	4.60	-54.58	1.21	-2.37	0.43	
KOGta	0.171	-0.243	1.592	-0.083	0.287	
KONwa	0.0557	-0.1035	0.4805	0.0460	0.4259	
KOPmr	0.0285	-0.2380	0.1120	-0.1338	0.0411	
KORoe	1.03	-9.67	6.75	-0.98	0.15	
KORota	0.0270	-0.2923	0.0440	-0.1288	0.0294	
KOTda	0.0524	0.1825	0.6996	0.2966	0.6605	

Descriptive Statistics: KOCdr, KOCr, ... by KORClS

Variable	KORClS	N	N*	Mean	Median	TrMean
KOCdr	0	11	1	-0.0517	0.0000	-0.0134
	1	2	0	0.1811	0.1811	0.1811
KOCr	0	11	1	0.9623	0.9461	0.9588
	1	2	0	0.6726	0.6726	0.6726
KODer	0	11	1	9.13	2.56	2.99
	1	2	0	-30.4	-30.4	-30.4
KODpr	0	10	2	0.00000	0.00000	0.00000
	1	2	0	-0.196	-0.196	-0.196
KOGet	0	9	3	-1.97	-0.13	-1.97
	1	2	0	0.532	0.532	0.532
KOGta	0	10	2	0.283	0.016	0.185
	1	2	0	-0.0338	-0.0338	-0.0338

KONwa	0	11	1	0.2684	0.2439	0.2737
	1	2	0	-0.0581	-0.0581	-0.0581
KOPmr	0	11	1	-0.0456	-0.0486	-0.0417
	1	2	0	-0.0524	-0.0524	-0.0524
KORoe	0	10	2	-1.313	-0.489	-0.455
	1	2	0	3.39	3.39	3.39
KORota	0	11	1	-0.0689	-0.0780	-0.0566
	1	2	0	-0.0472	-0.0472	-0.0472
KOTda	0	11	1	0.4611	0.5194	0.4681
	1	2	0	0.69376	0.69376	0.69376

Variable	KORClS	StDev	SE Mean	Minimum	Maximum	Q1
KOCdr	0	0.2711	0.0817	-0.7248	0.2763	-0.0852
	1	0.0664	0.0469	0.1342	0.2281	*
KOCr	0	0.2384	0.0719	0.6506	1.3048	0.7351
	1	0.0307	0.0217	0.6509	0.6944	*
KODer	0	21.39	6.45	0.44	73.13	0.61
	1	33.4	23.6	-53.9	-6.8	*
KODpr	0	0.00000	0.00000	0.00000	0.00000	0.00000
	1	0.277	0.196	-0.391	0.000	*
KOGer	0	5.04	1.68	-15.06	1.21	-1.86
	1	0.634	0.448	0.084	0.980	*
KOGta	0	0.638	0.202	-0.243	1.592	-0.096
	1	0.0853	0.0603	-0.0942	0.0265	*
KONwa	0	0.1729	0.0521	0.0088	0.4805	0.0872
	1	0.0642	0.0454	-0.1035	-0.0128	*
KOPmr	0	0.1104	0.0333	-0.2380	0.1120	-0.1511
	1	0.0707	0.0500	-0.1024	-0.0024	*
KORoe	0	2.984	0.944	-9.672	0.181	-1.153
	1	4.77	3.37	0.02	6.75	*
KORota	0	0.1044	0.0315	-0.2923	0.0440	-0.1445
	1	0.0643	0.0455	-0.0926	-0.0017	*
KOTda	0	.1834	0.0553	0.1825	0.6770	0.2690
	1	0.00832	0.00588	0.68788	0.69964	*

Variable	KORClS	Q3
KOCdr	0	0.1031
	1	*
KOCr	0	1.2413
	1	*
KODer	0	7.48
	1	*
KODpr	0	0.00000
	1	*
KOGer	0	0.26
	1	*
KOGta	0	0.581
	1	*

KONwa	0	0.4281
	1	*
KOPmr	0	0.0666
	1	*
KORoe	0	0.153
	1	*
KORota	0	0.0348
	1	*
KOTda	0	0.6237
	1	*
	2	

Descriptive Statistics: MARCdr, MARCr, MARDer, MARDpr, MARGd, MARGe, MARGta, MA

Variable	N	N*	Mean	Median	TrMean	StDev
MARCdr	15	0	0.211	0.165	0.167	0.509
MARCr	15	0	1.1175	1.0234	1.0890	0.3029
MARDer	15	0	1.013	0.772	0.983	0.677
MARDpr	15	0	0.407	0.392	0.367	0.417
MARGd	10	3	0.125	0.010	0.124	0.652
MARGe	14	1	0.57	0.00	0.30	3.79
MARGta	14	1	0.1231	0.0796	0.1176	0.2755
MARNwa	15	0	0.3891	0.4245	0.3908	0.1363
MARPmr	15	0	-0.0132	0.0135	-0.0017	0.0682
MARRoe	15	0	-0.0770	0.0299	-0.0304	0.2833
MARRota	15	0	-0.0026	0.0233	0.0118	0.0989
MARTda	15	0	0.3106	0.3277	0.3161	0.1079

Variable	SE Mean	Minimum	Maximum	Q1	Q3
MARCdr	0.131	-0.602	1.594	-0.122	0.420
MARCr	0.0782	0.7579	1.8471	0.9669	1.2701
MARDer	0.175	0.153	2.260	0.423	1.476
MARDpr	0.108	0.000	1.329	0.000	0.633
MARGd	0.206	-1.000	1.250	-0.156	0.517
MARGe	1.01	-6.76	11.16	-0.52	1.29
MARGta	0.0736	-0.4212	0.7327	0.0079	0.2895
MARNwa	0.0352	0.1679	0.5878	0.2798	0.5036
MARPmr	0.0176	-0.2078	0.0319	-0.0024	0.0269
MARRoe	0.0732	-0.8788	0.1199	-0.0154	0.0779
MARRota	0.0255	-0.2837	0.0903	0.0050	0.0579
MARTda	0.0278	0.0838	0.4652	0.2166	0.4181

Descriptive Statistics: MARCdr, MARCr, ... by MarCls

Variable	MarCls	N	N*	Mean	Median	TrMean
MARCdr	0	5	0	-0.092	-0.035	-0.092
	1	10	0	0.362	0.230	0.288
MARCr	0	5	0	1.0169	1.0223	1.0169
	1	10	0	1.168	1.150	1.134
MARDer	0	5	0	1.495	1.378	1.495

	1	10	0	0.772	0.486	0.706
MARDpr	0	5	0	0.219	0.222	0.219
	1	10	0	0.501	0.437	0.460
MARGd	0	2	3	0.0100	0.0100	0.0100
	1	10	0	0.122	0.000	0.122
MARGet	0	4	1	2.92	0.56	2.92
	1	10	0	-0.371	-0.002	0.063
MARGta	0	4	1	0.1965	0.2353	0.1965
	1	10	0	0.094	0.043	0.078
MARNwa	0	5	0	0.2878	0.3172	0.2878
	1	10	0	0.4397	0.4878	0.4459
MARPr	0	5	0	0.01477	0.01424	0.01477
	1	10	0	-0.0272	0.0101	-0.0118
MARRoe	0	5	0	0.0609	0.0779	0.0609
	1	10	0	-0.146	0.016	-0.084
MARRota	0	5	0	0.0440	0.0463	0.0440
	1	10	0	-0.0260	0.0141	-0.0083
MARTda	0	5	0	0.3759	0.3560	0.3759
	1	10	0	0.2779	0.2521	0.2787

Variable	MarCls	StDev	SE Mean	Minimum	Maximum	Q1
MARCdr	0	0.312	0.139	-0.602	0.212	-0.362
	1	0.532	0.168	-0.280	1.594	0.015
MARCr	0	0.0346	0.0155	0.9670	1.0635	0.9878
	1	0.366	0.116	0.758	1.847	0.806
MARDer	0	0.636	0.285	0.772	2.260	0.903
	1	0.583	0.184	0.153	1.919	0.409
MARDpr	0	0.259	0.116	0.000	0.633	0.000
	1	0.459	0.145	0.000	1.329	0.000
MARGd	0	0.0141	0.0100	0.0000	0.0200	*
	1	0.652	0.206	-1.000	1.250	-0.156
MARGet	0	5.55	2.77	0.61	11.16	-0.48
	1	2.666	0.843	-6.762	3.556	-0.861
MARGta	0	0.1375	0.0687	0.0058	0.3097	0.0513
	1	0.316	0.100	-0.421	0.733	-0.043
MARNwa	0	0.1092	0.0488	0.1679	0.4245	0.1764
	1	0.1227	0.0388	0.2424	0.5878	0.2853
MARPr	0	0.01306	0.00584	-0.00242	0.03195	0.00293
	1	0.0807	0.0255	-0.2078	0.0298	-0.0826
MARRoe	0	0.0530	0.0237	-0.0154	0.1199	0.0086
	1	0.328	0.104	-0.879	0.093	-0.391
MARRota	0	0.0264	0.0118	0.0050	0.0740	0.0197
	1	0.1145	0.0362	-0.2837	0.0903	-0.1004
MARTda	0	0.0487	0.0218	0.3277	0.4370	0.3342
	1	0.1161	0.0367	0.0838	0.4652	0.2048

Variable MarCls Q3

MARCdr	0	0.149
	1	0.622
MARCr	0	1.0434
	1	1.391
MARDer	0	2.145
	1	1.350
MARDpr	0	0.437
	1	0.869
MARGd	0	*
	1	0.517
MARGet	0	8.67
	1	0.771
MARGta	0	0.3030
	1	0.206
MARNwa	0	0.3845
	1	0.5154
MARPr	0	0.02687
	1	0.0275
MARroe	0	0.1048
	1	0.060
MARRota	0	0.0672
	1	0.0491
MARTda	0	0.4276
	1	0.3804

Descriptive Statistics: PANCDr, PANCr, PANDer, PANDpr, PANGd, PANGet, PANGta, PANNwa, PANRoe, PANRota, PANTda

Variable	N	N*	Mean	Median	TrMean	StDev
PANCDr	8	6	3.32	1.37	3.32	15.80
PANCr	14	0	1.568	1.679	1.560	0.403
PANDer	14	0	0.00566	0.00343	0.00449	0.00753
PANDpr	14	0	0.3539	0.3415	0.3533	0.1721
PANGd	13	1	0.033	0.000	0.088	0.398
PANGet	13	1	0.094	0.082	0.154	0.801
PANGta	13	1	0.1579	0.1037	0.1377	0.1478
PANNwa	14	0	0.64549	0.65498	0.64517	0.02838
PANRoe	14	0	0.03025	0.03551	0.03243	0.01994
PANRota	14	0	0.02948	0.03239	0.03105	0.01761
PANTda	14	0	0.00369	0.00229	0.00293	0.00491

Variable	SE Mean	Minimum	Maximum	Q1	Q3
PANCDr	5.59	-20.31	36.26	-2.32	6.68
PANCr	0.108	0.960	2.269	1.210	1.905
PANDer	0.00201	0.00000	0.02544	0.00000	0.01013
PANDpr	0.0460	0.0000	0.7151	0.2722	0.4588
PANGd	0.111	-1.000	0.458	0.000	0.350

PANGet	0.222	-1.885	1.417	-0.343	0.623
PANGta	0.0410	0.0160	0.5230	0.0498	0.2344
PANNwa	0.00758	0.59793	0.69682	0.61964	0.66756
PANRoe	0.00533	-0.02691	0.06121	0.02319	0.04029
PANRota	0.00471	-0.01677	0.05698	0.02067	0.03959
PANTda	0.00131	0.00000	0.01655	0.00000	0.00642

Descriptive Statistics: PANCdr, PANCr, ... by PANClS

Variable	PANClS	N	N*	Mean	Median	TrMean
PANCdr	0	4	6	11.37	5.86	11.37
	1	4	0	-4.72	-1.71	-4.72
PANCr	0	10	0	1.464	1.339	1.426
	1	4	0	1.8279	1.8332	1.8279
PANDer	0	10	0	0.00298	0.00000	0.00175
	1	4	0	0.01236	0.01019	0.01236
PANDpr	0	10	0	0.4108	0.3841	0.3921
	1	4	0	0.2116	0.2467	0.2116
PANGd	0	9	1	0.1776	0.1111	0.1776
	1	4	0	-0.293	-0.236	-0.293
PANGet	0	9	1	0.261	0.298	0.261
	1	4	0	-0.283	0.068	-0.283
PANGta	0	9	1	0.1713	0.1037	0.1713
	1	4	0	0.1278	0.1023	0.1278
PANNwa	0	10	0	0.6431	0.6434	0.6421
	1	4	0	0.65133	0.65683	0.65133
PANRoe	0	10	0	0.03359	0.03359	0.03244
	1	4	0	0.0219	0.0373	0.0219
PANRota	0	10	0	0.03007	0.02890	0.02850
	1	4	0	0.0280	0.0404	0.0280
PANTda	0	10	0	0.00196	0.00000	0.00114
	1	4	0	0.00803	0.00656	0.00803

Variable	PANClS	StDev	SE Mean	Minimum	Maximum	Q1
PANCdr	0	17.10	8.55	-2.52	36.26	-0.78
	1	10.85	5.42	-20.31	4.85	-15.66
PANCr	0	0.434	0.137	0.960	2.269	1.060
	1	0.1094	0.0547	1.7026	1.9428	1.7205
PANDer	0	0.00505	0.00160	0.00000	0.01580	0.00000
	1	0.00925	0.00462	0.00364	0.02544	0.00525
PANDpr	0	0.1455	0.0460	0.2564	0.7151	0.2867
	1	0.1645	0.0822	0.0000	0.3529	0.0408
PANGd	0	0.2007	0.0669	0.0000	0.4583	0.0000
	1	0.569	0.284	-1.000	0.300	-0.868
PANGet	0	0.638	0.213	-0.572	1.417	-0.343
	1	1.099	0.550	-1.885	0.617	-1.397
PANGta	0	0.1670	0.0557	0.0160	0.5230	0.0540
	1	0.1061	0.0530	0.0391	0.2675	0.0423

PANNwa	0	0.0318	0.0101	0.5979	0.6968	0.6156
	1	0.01968	0.00984	0.62382	0.66785	0.63058
PANRoe	0	0.01331	0.00421	0.01517	0.06121	0.02319
	1	0.0326	0.0163	-0.0269	0.0399	-0.0111
PANRota	0	0.01202	0.00380	0.01569	0.05698	0.02067
	1	0.0301	0.0151	-0.0168	0.0479	-0.0029
PANTda	0	0.00333	0.00105	0.00000	0.01047	0.00000
	1	0.00601	0.00301	0.00243	0.01655	0.00339

Variable	PANCIs	Q3
PANCdr	0	29.02
	1	3.21
PANCr	0	1.780
	1	1.9301
PANDer	0	0.00537
	1	0.02165
PANDpr	0	0.5229
	1	0.3472
PANGd	0	0.4143
	1	0.225
PANGet	0	0.706
	1	0.480
PANGta	0	0.2749
	1	0.2388
PANNwa	0	0.6678
	1	0.66660
PANRoe	0	0.04142
	1	0.0395
PANRota	0	0.03549
	1	0.0465
PANTda	0	0.00343
	1	0.01412

Descriptive Statistics: PORTLCdr, PORTLCr, PORTLDer, PORTLDpr, PORTLGd, PORTLGet

Variable	N	N*	Mean	Median	TrMean	StDev
PORTLCdr	15	0	0.420	0.139	0.345	0.594
PORTLCr	15	0	1.6896	1.7342	1.7017	0.3098
PORTLDer	15	0	2.551	1.399	2.030	2.785
PORTLDpr	15	0	0.1749	0.0984	0.1508	0.2101
PORTLGd	9	4	0.463	0.000	0.463	1.518
PORTLGet	14	1	0.491	0.435	0.588	1.814
PORTLGta	14	1	0.393	0.093	0.168	0.923
PORTLNwa	15	0	0.2752	0.2956	0.2796	0.0859
PORTLPmr	15	0	0.0123	0.0278	0.0249	0.1344
PORTLRoe	15	0	0.0160	0.0665	0.0778	0.3304

PORTLTda	15	0	0.5019	0.4286	0.5006	0.2065
PORTRota	15	0	0.0329	0.0483	0.0448	0.0863

Variable	SE Mean	Minimum	Maximum	Q1	Q3
PORTLCdr	0.153	0.000	1.813	0.059	0.598
PORTLCr	0.0800	1.0149	2.2077	1.3897	1.9187
PORTLDer	0.719	0.579	11.299	1.080	2.866
PORTLDpr	0.0542	0.0000	0.6630	0.0000	0.2725
PORTLGd	0.506	-1.000	4.000	-0.667	1.000
PORTLGet	0.485	-3.338	3.152	-0.383	2.045
PORTLGta	0.247	-0.035	3.530	-0.001	0.353
PORTLNwa	0.0222	0.0742	0.4189	0.2402	0.3208
PORTLPmr	0.0347	-0.3727	0.2324	0.0123	0.0504
PORTLRoe	0.0853	-1.0693	0.2986	0.0486	0.1653
PORTLTda	0.0533	0.1828	0.8380	0.3848	0.6788
PORTRota	0.0223	-0.2146	0.1262	0.0183	0.0863

Descriptive Statistics: PORTLCdr, PORTLCr, ... by PORTCIs

Variable	PORTCIs	N	N*	Mean	Median	TrMean
PORTLCdr	0	11	0	0.521	0.302	0.436
	1	4	0	0.1395	0.1306	0.1395
PORTLCr	0	11	0	1.6884	1.7342	1.7055
	1	4	0	1.693	1.739	1.693
PORTLDer	0	11	0	2.288	1.287	1.477
	1	4	0	3.274	2.672	3.274
PORTLDpr	0	11	0	0.2167	0.1074	0.1912
	1	4	0	0.0599	0.0000	0.0599
PORTLGd	0	7	4	0.667	0.000	0.667
	1	4	0	-0.125	0.000	-0.125
PORTLGet	0	10	1	0.378	0.275	0.471
	1	4	0	0.77	1.64	0.77
PORTLGta	0	10	1	0.508	0.165	0.198
	1	4	0	0.1072	0.0416	0.1072
PORTLNwa	0	11	0	0.2903	0.2996	0.3001
	1	4	0	0.2336	0.2474	0.2336
PORTLPmr	0	11	0	0.02685	0.02780	0.02886
	1	4	0	-0.028	0.014	-0.028
PORTLRoe	0	11	0	0.0953	0.0665	0.0945
	1	4	0	-0.202	-0.019	-0.202
PORTLTda	0	11	0	0.4464	0.4090	0.4322
	1	4	0	0.6544	0.6300	0.6544
PORTRota	0	11	0	0.0517	0.0483	0.0512
	1	4	0	-0.0188	0.0098	-0.0188

Variable	PORTCIs	StDev	SE Mean	Minimum	Maximum	Q1
PORTLCdr	0	0.671	0.202	0.000	1.813	0.054

	1	0.0357	0.0179	0.1073	0.1894	0.1110
PORTLCr	0	0.3218	0.0970	1.0149	2.2077	1.3897
	1	0.320	0.160	1.311	1.982	1.370
PORTLDer	0	3.080	0.929	0.579	11.299	0.790
	1	1.907	0.953	1.806	5.945	1.855
PORTLDpr	0	0.2242	0.0676	0.0000	0.6630	0.0000
	1	0.1198	0.0599	0.0000	0.2395	0.0000
PORTLGd	0	1.633	0.617	-1.000	4.000	-0.333
	1	0.629	0.315	-1.000	0.500	-0.750
PORTLGet	0	1.323	0.418	-2.141	2.146	-0.383
	1	2.98	1.49	-3.34	3.15	-2.37
PORTLGta	0	1.083	0.342	-0.035	3.530	-0.015
	1	0.1561	0.0781	0.0055	0.3399	0.0145
PORTLNwa	0	0.0865	0.0261	0.0742	0.4189	0.2544
	1	0.0796	0.0398	0.1362	0.3035	0.1524
PORTLPmr	0	0.01965	0.00592	-0.01633	0.05189	0.01578
	1	0.283	0.141	-0.373	0.232	-0.315
PORTLRoe	0	0.0916	0.0276	-0.0824	0.2806	0.0521
	1	0.628	0.314	-1.069	0.299	-0.867
PORTLTda	0	0.2074	0.0625	0.1828	0.8380	0.2426
	1	0.1157	0.0578	0.5480	0.8096	0.5580
PORTRota	0	0.0435	0.0131	-0.0179	0.1262	0.0200
	1	0.1537	0.0769	-0.2146	0.1199	-0.1776

Variable	PORTCIs	Q3
PORTLCdr	0	0.622
	1	0.1768
PORTLCr	0	1.8620
	1	1.969
PORTLDer	0	2.668
	1	5.294
PORTLDpr	0	0.4464
	1	0.1797
PORTLGd	0	1.000
	1	0.375
PORTLGet	0	1.742
	1	3.05
PORTLGta	0	0.452
	1	0.2654
PORTLNwa	0	0.3322
	1	0.3010
PORTLPmr	0	0.04000
	1	0.217
PORTLRoe	0	0.1553
	1	0.279
PORTLTda	0	0.6788
	1	0.7752

PORTRota	0	0.0733
	1	0.1115

Descriptive Statistics: SMGCdr, SMGCr, SMGDer, SMGDpr, SMGGd, SMGGet, SMGGta, SM

Variable	N	N*	Mean	Median	TrMean	StDev
SMGCdr	15	0	0.422	0.222	0.345	1.036
SMGCr	15	0	1.1154	1.1570	1.1208	0.2430
SMGDer	15	0	-0.280	0.374	0.131	2.275
SMGDpr	15	0	0.352	0.000	0.228	0.775
SMGGd	7	6	-0.479	-0.498	-0.479	0.477
SMGGet	14	1	-4.14	0.47	-1.38	12.06
SMGGta	14	1	0.1242	0.1229	0.1026	0.2392
SMGNwa	15	0	0.2394	0.2870	0.2559	0.2418
SMGPmr	15	0	-0.0100	0.0051	-0.0074	0.0513
SMGRoe	15	0	0.278	0.041	0.042	1.098
SMGRota	15	0	-0.0132	0.0140	-0.0093	0.1058
SMGTda	15	0	0.2361	0.1812	0.2223	0.1565

Variable	SE Mean	Minimum	Maximum	Q1	Q3
SMGCdr	0.268	-0.889	2.733	-0.070	1.314
SMGCr	0.0627	0.5937	1.5664	0.9960	1.2770
SMGDer	0.587	-7.593	1.688	0.152	0.805
SMGDpr	0.200	-0.476	2.794	0.000	0.502
SMGGd	0.180	-1.000	0.000	-1.000	0.000
SMGGet	3.22	-43.72	2.39	-4.59	1.27
SMGGta	0.0639	-0.1503	0.6574	-0.0738	0.2021
SMGNwa	0.0624	-0.2820	0.5462	0.1862	0.4289
SMGPmr	0.0133	-0.1084	0.0547	-0.0432	0.0267
SMGRoe	0.283	-0.501	4.112	-0.201	0.245
SMGRota	0.0273	-0.2288	0.1520	-0.0871	0.0569
SMGTda	0.0404	0.0463	0.6047	0.1041	0.3881

Descriptive Statistics: SMGCdr, SMGCr, ... by SMGCIs

Variable	SMGCIs	N	N*	Mean	Median	TrMean
SMGCdr	0	12	0	0.530	0.390	0.451
	1	3	0	-0.0080	-0.0316	-0.0080
SMGCr	0	12	0	1.2094	1.1825	1.1950
	1	3	0	0.7393	0.7631	0.7393
SMGDer	0	12	0	0.627	0.494	0.568
	1	3	0	-3.91	-2.14	-3.91
SMGDpr	0	12	0	0.440	0.125	0.297
	1	3	0	0.00000	0.00000	0.00000
SMGGd	0	6	6	-0.392	-0.250	-0.392
	1	3	0	-0.333	0.000	-0.333
SMGGet	0	11	1	-1.46	0.72	-0.70
	1	3	0	-13.9	0.2	-13.9
SMGGta	0	11	1	0.1335	0.1083	0.1068

	1	3	0	0.0899	0.1376	0.0899
SMGNwa	0	12	0	0.3437	0.3130	0.3392
	1	3	0	-0.1776	-0.1998	-0.1776
SMGPmr	0	12	0	-0.0010	0.0067	0.0047
	1	3	0	-0.0459	-0.0839	-0.0459
SMGRoe	0	12	0	-0.0043	0.0389	0.0006
	1	3	0	1.40	0.60	1.40
SMGRota	0	12	0	0.0172	0.0267	0.0169
	1	3	0	-0.1350	-0.2101	-0.1350
SMGTda	0	12	0	0.2653	0.2188	0.2532
	1	3	0	0.1193	0.1041	0.1193

Variable	SMGCIs	StDev	SE Mean	Minimum	Maximum	Q1
SMGCdr	0	1.141	0.329	-0.889	2.733	-0.628
	1	0.0719	0.0415	-0.0651	0.0728	-0.0651
SMGCr	0	0.1536	0.0443	0.9960	1.5664	1.0999
	1	0.1354	0.0782	0.5937	0.8612	0.5937
SMGDer	0	0.501	0.145	0.152	1.688	0.213
	1	3.19	1.84	-7.59	-1.98	-7.59
SMGDpr	0	0.850	0.245	-0.476	2.794	0.000
	1	0.00000	0.00000	0.00000	0.00000	0.00000
SMGGd	0	0.458	0.187	-1.000	0.000	-0.888
	1	0.577	0.333	-1.000	0.000	-1.000
SMGGet	0	4.39	1.32	-12.19	2.39	-4.10
	1	25.8	14.9	-43.7	1.7	-43.7
SMGGta	0	0.2672	0.0806	-0.1503	0.6574	-0.0835
	1	0.1125	0.0649	-0.0385	0.1708	-0.0385
SMGNwa	0	0.1123	0.0324	0.1862	0.5462	0.2461
	1	0.1170	0.0676	-0.2820	-0.0511	-0.2820
SMGPmr	0	0.0389	0.0112	-0.1006	0.0416	-0.0163
	1	0.0879	0.0508	-0.1084	0.0547	-0.1084
SMGRoe	0	0.2132	0.0616	-0.4163	0.3588	-0.1583
	1	2.41	1.39	-0.50	4.11	-0.50
SMGRota	0	0.0727	0.0210	-0.1144	0.1520	-0.0333
	1	0.1467	0.0847	-0.2288	0.0341	-0.2288
SMGTda	0	0.1621	0.0468	0.0463	0.6047	0.1505
	1	0.0361	0.0208	0.0934	0.1606	0.0934

Variable	SMGCIs	Q3
SMGCdr	0	1.454
	1	0.0728
SMGCr	0	1.3057
	1	0.8612
SMGDer	0	0.854
	1	-1.98
SMGDpr	0	0.778
	1	0.00000

SMGGd	0	0.000
	1	0.000
SMGGet	0	1.14
	1	1.7
SMGGta	0	0.2433
	1	0.1708
SMGNwa	0	0.4476
	1	-0.0511
SMGPmr	0	0.0259
	1	0.0547
SMGRoe	0	0.0732
	1	4.11
SMGRota	0	0.0585
	1	0.0341
SMGTda	0	0.3940
	1	0.1606

Descriptive Statistics: TotalCdr, TotalCr, TotalDer, TotalDpr, TotalGd, TotalGet

Variable	N	N*	Mean	Median	TrMean	StDev
TotalCdr	13	2	5.35	0.34	1.29	15.20
TotalCr	14	1	1.3561	1.3357	1.3558	0.0799
TotalDer	14	1	1.093	1.230	1.037	0.884
TotalDpr	14	1	0.772	0.594	0.679	1.227
TotalGd	12	1	0.586	0.148	0.303	1.630
TotalGet	13	2	0.537	0.029	0.363	1.802
TotalGta	13	2	0.237	0.200	0.235	0.382
TotalNwa	14	1	0.3371	0.3135	0.3362	0.0803
TotalPmr	14	1	0.03145	0.02629	0.03078	0.02617
TotalRoe	14	1	0.2712	0.2423	0.2497	0.2334
TotalRot	14	1	0.1412	0.1476	0.1384	0.1074
TotalTda	14	1	0.3291	0.4336	0.3340	0.2347

Variable	SE Mean	Minimum	Maximum	Q1	Q3
TotalCdr	4.22	-0.19	55.49	0.04	2.56
TotalCr	0.0213	1.1951	1.5203	1.3168	1.4192
TotalDer	0.236	0.000	2.863	0.190	1.778
TotalDpr	0.328	-1.340	3.998	0.066	0.955
TotalGd	0.471	-1.000	5.000	-0.335	0.868
TotalGet	0.500	-2.076	5.069	-0.526	1.519
TotalGta	0.106	-0.439	0.939	-0.015	0.480
TotalNwa	0.0215	0.1911	0.4944	0.2897	0.3937
TotalPmr	0.00699	-0.01556	0.08643	0.01307	0.05139
TotalRoe	0.0624	-0.1014	0.9011	0.1251	0.3876
TotalRot	0.0287	-0.0664	0.3813	0.0731	0.1953
TotalTda	0.0627	0.0000	0.5994	0.0597	0.5475

Descriptive Statistics: TotalCdr, TotalCr, ... by TotalCIs

Variable	TotalCIs	N	N*	Mean	Median	TrMean
TotalCdr	0	13	2	5.35	0.34	1.29
TotalCr	0	14	1	1.3561	1.3357	1.3558
TotalDer	0	14	1	1.093	1.230	1.037
TotalDpr	0	14	1	0.772	0.594	0.679
TotalGd	0	14	1	0.502	0.138	0.252
TotalGet	0	13	2	0.537	0.029	0.363
TotalGta	0	13	2	0.237	0.200	0.235
TotalNwa	0	14	1	0.3371	0.3135	0.3362
TotalPmr	0	14	1	0.03145	0.02629	0.03078
TotalRoe	0	14	1	0.2712	0.2423	0.2497
TotalRot	0	14	1	0.1412	0.1476	0.1384
TotalTda	0	14	1	0.3291	0.4336	0.3340

Variable	TotalCIs	StDev	SE Mean	Minimum	Maximum	Q1
TotalCdr	0	15.20	4.22	-0.19	55.49	0.04
TotalCr	0	0.0799	0.0213	1.1951	1.5203	1.3168
TotalDer	0	0.884	0.236	0.000	2.863	0.190
TotalDpr	0	1.227	0.328	-1.340	3.998	0.066
TotalGd	0	1.514	0.405	-1.000	5.000	-0.115
TotalGet	0	1.802	0.500	-2.076	5.069	-0.526
TotalGta	0	0.382	0.106	-0.439	0.939	-0.015
TotalNwa	0	0.0803	0.0215	0.1911	0.4944	0.2897
TotalPmr	0	0.02617	0.00699	-0.01556	0.08643	0.01307
TotalRoe	0	0.2334	0.0624	-0.1014	0.9011	0.1251
TotalRot	0	0.1074	0.0287	-0.0664	0.3813	0.0731
TotalTda	0	0.2347	0.0627	0.0000	0.5994	0.0597

Variable	TotalCIs	Q3
TotalCdr	0	2.56
TotalCr	0	1.4192
TotalDer	0	1.778
TotalDpr	0	0.955
TotalGd	0	0.603
TotalGet	0	1.519
TotalGta	0	0.480
TotalNwa	0	0.3937
TotalPmr	0	0.05139
TotalRoe	0	0.3876
TotalRot	0	0.1953
TotalTda	0	0.5475

Descriptive Statistics: UngaCdr, UngaCr, UngaDer, UngaDpr, UngaGd, UngaGet, Unga

Variable	N	N*	Mean	Median	TrMean	StDev
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UngaCdr	15	0	0.460	0.361	0.380	0.528
UngaCr	15	0	0.9093	0.9141	0.9130	0.2444
UngaDer	15	0	0.3184	0.3554	0.3192	0.1239
UngaDpr	15	0	0.2259	0.1418	0.1808	0.3454
UngaGd	11	2	0.227	0.000	.102	1.239
UngaGet	14	1	-1.90	0.00	-0.81	5.73
UngaGta	14	1	0.0748	0.0145	0.0511	0.2165
UngaNwa	15	0	0.9047	0.8793	0.8988	0.1368
UngaPmr	15	0	-0.0177	0.0020	-0.0131	0.0446
UngaRoe	15	0	-0.0514	0.0038	-0.0356	0.1342
UngaRota	15	0	-0.0087	0.0293	-0.0014	0.1349
UngaTda	15	0	0.2770	0.2906	0.2774	0.0908

Variable	SE Mean	Minimum	Maximum	Q1	Q3
UngaCdr	0.136	-0.203	2.157	0.294	0.564
UngaCr	0.0631	0.4894	1.2807	0.6772	1.1451
UngaDer	0.0320	0.1288	0.4979	0.1873	0.4107
UngaDpr	0.0892	-0.0472	1.0862	0.0000	0.3138
UngaGd	0.374	-1.000	2.571	-0.880	0.500
UngaGet	1.53	-19.43	2.50	-2.85	1.35
UngaGta	0.0579	-0.1579	0.5912	-0.0716	0.1379
UngaNwa	0.0353	0.7372	1.1484	0.7884	1.0108
UngaPmr	0.0115	-0.1293	0.0344	-0.0395	0.0164
UngaRoe	0.0347	-0.3997	0.0912	-0.1063	0.0375
UngaRota	0.0348	-0.2967	0.1844	-0.1063	0.1057
UngaTda	0.0234	0.1297	0.4195	0.1922	0.3392

Descriptive Statistics: UngaCdr, UngaCr, ... by UngaCls

Variable	UngaCls	N	N*	Mean	Median	TrMean
UngaCdr	0	10	0	0.4397	0.3950	0.4314
	1	5	0	0.500	0.294	0.500
UngaCr	0	10	0	0.8809	0.9176	0.8799
	1	5	0	0.9660	0.9106	0.9660
UngaDer	0	10	0	0.2875	0.3082	0.2872
	1	5	0	0.3803	0.4107	0.3803
UngaDpr	0	10	0	0.301	0.184	0.246
	1	5	0	0.0759	0.0000	0.0759
UngaGd	0	8	2	0.484	0.000	0.484
	1	5	0	-0.276	0.000	-0.276
UngaGet	0	9	1	-2.58	-0.50	-2.58
	1	5	0	-0.68	0.66	-0.68
UngaGta	0	9	1	0.1189	0.0620	0.1189
	1	5	0	-0.0046	-0.0545	-0.0046
UngaNwa	0	10	0	0.8959	0.8589	0.8860
	1	5	0	0.9221	0.9062	0.9221
UngaPmr	0	10	0	0.00054	0.00621	0.00132

	1	5	0	-0.0542	-0.0418	-0.0542
UngaRoe	0	10	0	0.0067	0.0128	0.0063
	1	5	0	-0.1676	-0.1159	-0.1676
UngaRota	0	10	0	0.0444	0.0331	0.0396
	1	5	0	-0.1148	-0.1241	-0.1148
UngaTda	0	10	0	0.2477	0.2792	0.2510
	1	5	0	0.3358	0.3752	0.3358

Variable	UngaCls	StDev	SE Mean	Minimum	Maximum	Q1
UngaCdr	0	0.1490	0.0471	0.2497	0.6961	0.3226
	1	0.961	0.430	-0.203	2.157	-0.169
UngaCr	0	0.2778	0.0878	0.4894	1.2807	0.6212
	1	0.1718	0.0768	0.8544	1.2676	0.8591
UngaDer	0	0.1059	0.0335	0.1475	0.4302	0.1839
	1	0.1460	0.0653	0.1288	0.4979	0.2650
UngaDpr	0	0.391	0.124	-0.047	1.086	-0.011
	1	0.1760	0.0787	-0.0110	0.3906	-0.0055
UngaGd	0	1.311	0.463	-1.000	2.571	-0.150
	1	0.641	0.287	-1.000	0.500	-0.940
UngaGet	0	6.88	2.29	-19.43	2.12	-3.95
	1	3.03	1.35	-5.24	2.50	-3.65
UngaGta	0	0.2332	0.0777	-0.0996	0.5912	-0.0372
	1	0.1769	0.0791	-0.1579	0.2879	-0.1382
UngaNwa	0	0.1441	0.0456	0.7372	1.1345	0.7761
	1	0.1349	0.0603	0.8004	1.1484	0.8212
UngaPmr	0	0.02239	0.00708	-0.03953	0.03440	-0.02018
	1	0.0577	0.0258	-0.1293	0.0216	-0.1097
UngaRoe	0	0.0488	0.0154	-0.0748	0.0912	-0.0403
	1	0.1799	0.0805	-0.3997	0.0681	-0.3420
UngaRota	0	0.0723	0.0229	-0.0575	0.1844	-0.0109
	1	0.1755	0.0785	-0.2967	0.1679	-0.2559
UngaTda	0	0.0681	0.0215	0.1297	0.3392	0.1853
	1	0.1093	0.0489	0.1479	0.4195	0.2428

Variable	UngaCls	Q3
UngaCdr	0	0.5796
	1	1.271
UngaCr	0	1.1473
	1	1.1006
UngaDer	0	0.3810
	1	0.4804
UngaDpr	0	0.464
	1	0.1953
UngaGd	0	1.875
	1	0.250
UngaGet	0	1.36
	1	1.63

UngaGta	0	0.2578
	1	0.1539
UngaNwa	0	1.0314
	1	1.0311
UngaPmr	0	0.01657
	1	-0.0050
UngaRoe	0	0.0399
	1	-0.0191
UngaRota	0	0.1066
	1	0.0308
UngaTda	0	0.2946
		0.4090