

DECLARATION

PRICE EARNINGS RATIO AND SHARE PERFORMANCE AT  
NAIROBI STOCK EXCHANGE

BY:



MUTHUI SOLOMON MUTUNGA

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A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL  
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## DECLARATION

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

Signed.....Solomon Mutunga Muthui.....Date.....8/10/03.....

**Solomon Mutunga Muthui**



This research project has been submitted for examination with my approval

Supervisor

Signed.....Mr. Otieno Odhiambo Luther.....Date.....19.11.2003.....

**Mr. Otieno Odhiambo Luther**

**Lecturer, department of accounting,**

**Faculty of commerce,**

**University of Nairobi.**

*To my Parents Mr. and Mrs. Muthui Muluvi, My sisters Mercy and Joyce and brothers Manuve, Mbiti and most of all Mumo. May this be an inspiration to you to strive for even greater heights.*

Special thanks go to my father, Dr. Willy Mutunga, Ali Salim Mutisi, Major (retd)

Mama and Cal Muriu for the assistance and encouragement they accorded me throughout my M.B.A. programme.

Finally, I appreciate the views of my colleagues and friends Ken, Kioko, Jesse, Wiza, Julius, Dr. Shako and my fellow M.B.A classmates.

To all I say God bless

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## ABSTRACT

The study set out to investigate whether there is any significant difference in returns between Low P/E Ratio stocks and High P/E Ratio stocks for companies quoted at the Nairobi stock exchange.

The need for the study emanated from the apparent conflict between the contrarian community and the value line where the former argues that the Low P/E stocks consistently produce returns greater than the average stocks and the latter quite the contrary, that the higher the P/E Ratio the better, hence the need for an empirical study to get the real picture from our local stocks exchange perspective. (NSE)

The P/E Ratios of the companies were computed and the stocks divided into three groups, the High, medium and Low. Share returns and risk were computed using secondary data obtained from the companies financial statements available at the Nairobi stock exchange for the high and low groups only. We then used the one way ANOVA to test our hypothesis.

The findings were that there is no statistically significant difference in returns of shares with Low P/E Ratio and the High P/E Ratio. This led to the conclusion that these investment strategies do not apply in this market and hence the investors should use other investment strategies in choosing assets to include in their portfolio.

## CHAPTER 1

### 1.1 Background

Investors value assets based on the earnings they anticipate from those investments. They have expectations on the value of their investment that enables them make decisions on whether to buy or sell or hold particular shares. The objectives of the investors is mainly to maximize the returns on their investments while minimizing risk.

Common stocks are a popular form of investing used by millions of individual investors. They are popular, in part, because they offer the investors the opportunity to tailor their investment programs to meet individual needs and preference. Given the size and diversity of the stock market, it is safe to say that no matter what investment objectives there are common stocks to fit the bill. For people living off their investment holdings, stocks provide a way of earning a steady stream of current income (from the dividends they produce). For investors less concerned about current income, common stocks can serve as a basis for long run accumulation of wealth. With this strategy, stocks are used very much like a savings account. Gitman and Joehnk (2002). Investors buy stock for the long haul as a way to earn not only dividends but also a steady flow of capital gains. Investors recognize that stocks have a tendency to go up or down in price over time and hence they need to have some screening device to help them position themselves to take advantage of this fact.

When money managers and investors want to invest their funds they will look for those stocks, which have superior investment performance. They can screen these stocks on the basis of such variables as price – earning ratio, price to book values, dividend yield, market capitalization and earning momentum. Senchack and Martin

(1987). Of these the price-earning ratio according to Pandey (1990), is the most widely used method of determining the value of common stocks by investors.

## 1.2 Price earning ratio

A popular measure of stock value is the price/earnings ratio (P/E), which is the current price of the stock divided by its most recent annualised earnings. Lears & Trennepolie (1993). The market price of a stock does not indicate if it is cheap or expensive, because investment value is a function of the future cash flows the investment will generate hence the P/E is used as yardstick to measure relative value.

Market professionals view the P/E as one indicator of whether or not a stock is property valued compared to other securities and compared to the stocks past values, the ratio should be examined in the context of its market sector and within the market as a whole to gauge whether it is high or low. A high P/E is a characteristic of dynamic growth stock, where profits are low but the share price is high in anticipation of good profits in the future. However sometimes it indicates that the last statement of earnings per share was smaller than the market expected and the share price has yet to drop in response.

Large stable stocks tend to have a low P/E ratio indicating slow but steady growth and reasonable levels of earnings each year. However low P/E can be a warning sign that a company's share price has dropped suddenly making the earnings per share appear proportionately larger. On a happier note, a low P/E can indicate that the company is undervalued relatively to the profits it is generating. Usually, the share price will rise to meet earnings, unless the market is aware of something fundamentally wrong with

the company. As a rule the higher the P/E the ratio, the more precarious the share price. If the whole market is trading on high price/earnings ratios, beware: the market may be overrated and ready for a correction.

The P/E ratio allows an investor to gauge whether a share is priced high or low relative to earnings. The assumption is that the market is prepared to place a higher P.E ratio on a company which has potential for above average growth in profits and dividends than on a company which is only managing sluggish growth. A common question that arises is: which is better, a high P/E or a low one? The better one is the one that promises superior returns to investors and is largely an empirical issue. However a share with a high P/E ratio may have the following advantages.

First, the wealth of the company's owners is increased in proportion to the increase in share price. The outcome is that if the company needs additional funds, these can be raised at favourable costs. It also means that a company may acquire interest in other companies through share exchange instead of cash. Second, a high P/E ratio reduces the possibility of a successful hostile takeover bid. This is advantageous in situations where the take over is not favourable to existing shareholders.

Stocks with low price earning ratio are more likely to be undervalued. Undervalued stocks have the potential to earn excess returns Graham (2000) Ben Graham, in his investment classics "the intelligent investor", uses low price earning ratios as a screen for finding under valued stocks.

Ndete P.M (1999) conducted a study of thirty quoted companies in the Nairobi stock exchange to find out whether the price earnings ratio is an indicator of investment



performance of ordinary shares by using the multiple regression analysis to establish the nature and type of relationships between the price earnings ratio and the rate of growth of earnings, the variation in earnings, (risk) and the dividend payout ratios of companies quoted at the N.S.E. He hypothesised that there is relationship between P/E ratio and growth earnings, the variation in earnings growth and dividend payout ratios. He found out that there was a weak relationship between the price earnings ratio and earnings growth, dividend payout and variation in earnings growth on stock quoted at the N.S.E. His study only strived to show whether there is any relationship between P/E ration and their three variables but in this study I will go a step further to find out whether portfolios constructed with different P/E rations are significantly different in terms of creation of shareholders wealth.

### 1.3 Statement of the problem

Empirical studies in finance present conflicting conclusions on the appropriateness of low P/E Ratio strategy over a high P/E Ratio, Basu (1971m 1977, 1983) and Nicholson (1960) published the first extensive study of the relationship between P/E Multiples subsequent total returns. Their findings suggest that low P/E stocks consistently provided returns greater than average stocks. Those findings are not different from those of Fama and French (1992) who observed that returns tend to be higher for low P/E ratio stocks and lower for high P/E ratio stock.

However, Niederhoffer and Kenner (1999) studying a narrow group of Nasdaq securities over a period of three years reckon that investors should prefer high P/E ratio stocks to low P/E ratio stocks i.e. the higher the P/E ratio the better. Their conclusion is as follows, "However all things considered, the results, in vernacular,

show that the higher the P/E ratio, the better for Nasdaq 100 stocks, which is exactly what Eisenstadt found for the biggest 1,500 companies. The results, in conjunction with Value Line's, are one more nail in the coffin of the value of investment theory that has been the accepted wisdom of the academic and contrarian community".

P/E Ratio is a widely cited ratio in the financial press in Kenya. The reasonable assumption is that investor use it in selecting the assets (stocks) to invest in. Furthermore the studies above have been carried out in developed markets and their applicability in developing markets like Nairobi Stock Exchange (NSE) have not been empirically tested. Developing markets have different characterises in terms of asset liquidity, volatility of returns, size, activity, market concentration, risk, among others Jahnke (1975) Bruno Solnik (1997) point out that the financial specialist is often struck by the different markets have not only different legal and physical organizations but also different transaction and accounting methods. For the above reasons this study will test whether the low P/E ratios strategy is an effective screening device for producing superior performance over the high P/E Ratio for stocks quoted in the NSE.

#### 1.4. Objective of the Study

- To examine the effect of low price earnings ratios on the share performance of firms quoted on the Nairobi Stock Exchange
- To select an investment strategy based on P/E ratios of the companies quoted at NSE. This will be achieved by comparing low to high P/E Ratio.

#### Hypothesis

Ho: there is no significant difference in return between low P/E ratio and high P/E ratio

Hi: There is significant difference in return between low P/E ratio and high P/E ratio

#### 1.5 Importance of the study

1 Investment practitioners

This study will be of use to investors, money managers, stockbrokers, and security analysts. Since they will be in position to know which investment strategy to apply.

2 Academicians and researchers.

This study will open doors for further research & in improvement in this area

## CHAPTER TWO

### 2.1 Literature Review

### 2.2 What is P/E Ratio?

The price earnings (P/E) is perhaps the most popular share valuation method used by investment analysts, managers and shareholders alike. It values a company's shares in relation to its earnings growth potential. The P/E Ratio is often referred to as the earnings multiple as it shows the number which a company's earnings per share (EPS) must be multiplied by to arrive at the shares market price, Menamin (1896), Theoretically, a stock's P/E tells us how much investors are willing to pay per shillings of earnings and for this reason it's also called the "Multiple" of a stock. A P/E Ratio of 20 suggests that investors are willing to pay Shs. 20 for every Shs. 1 (One) of earnings that the company generates, Haahr, (2000)

The P/E Ratio is a much better indicator of the value of stock than the market price alone. For example, all things being equal, a Shs. 10 stock with a P/E of 75 is much more "expensive" than a Shs. 100 stock with a P/E of 20. However there are limits to use of this ratio. For example, you can't just compare P/E of two tally different companies to determine which is a better value.

A companies basic earnings per share (EPS) calculated by dividing the net profit or loss attributed to ordinary shareholders by the weighed average number of ordinary shares outstanding during the period. The weighted average number of shares reflect the fact that the number of share in issue may have varied during the relevant period for example as a result of new issue or buyback. The P/E ratio is determined by dividing the market price per share (MPS) of the company ordinary share by its E.P.S.



The P/E ratio is the number of years required for the earnings to cover the price of the stock. For example, if the P/E is 12, this means that the price of the stock is 12 times its earnings; it will take 12 years for the earnings to equal the value of the stock. There is a big 'if' here, because this is the case if the earnings remain constant. Clearly, if the growth rate is 10 percent, the price of the stock will be covered in less than 12 years, say in approximately 8 years, price (1997).

The market price of a company's share at any point in time reflects the consensus view of the market (investors) about the future prospects of the company, particularly its potential for generating future cash flows. The assumption is that high P/E ratio means the market is confident about the company's future returns but a low P/E ratio generally indicates lack of market confidence and low expectation about future returns, Fisher (1994).

The higher the price-earnings ratio of the share, the more earnings have to increase annually to justify the share price. An increase in earnings even at the anticipated rate will not necessarily ensure the maintenance of the share price. Indeed, this had been the recent experience with Microsoft where the share price has remained weak and well below previous highs despite a very sound growth in earnings, Dixon (2002).

Moffat (2001) explains why we connect price to earnings and argues that the share price is built on expectation of a company's future performance. Some of these expectations will be based on fundamentals such as the company's recent performance derived from its new products lines, and the prospects for its sector. The rest will reflect prevailing moods, fashion and sentiment. By relating share price to

actual profits, the P/E ratio highlights and connection between the price and recent company performance. If prices get high and profit gets higher, the ratio stays the same. The ratio only changes if the moves on price and profits are not proportionate. For this reason when the ratio is higher or lower than normal we know that the recent profit levels is no longer the main factor in pricing. This happens when inventors expect a much better or worse performance in the near future. Investor will decide if they agree with the prevailing P/E ratio (is it too high or low) by comparing it to the P/E ratio of the aggregate market or the industry, Reilly et al, (1994).

The market price of a share will be a function of both the earnings and appropriate P/E ratio which is basically its earnings multiple. P/E ratio might reflect the fact that investors rely too much on historical data and give insufficient weight to the larger random element in profit. If a share sells on a high P/E ratio, investors expect good things of the company. If a share post better than expected earnings it will probably raise its price to reflect the extra earnings but its P/E ratio may not change. For low P/E ratio stocks, one would expect the same asymmetric response but this time in a favourable direction, Lofthouse, (2002). A good example is Microsoft being one of the largest companies in the world and so revenues and earnings can't grow at the same pace as beforehand, show a P/E ratio of 43 (as at June, 2002). This reduction in the P/E ratio is expected given that growth start-ups solidify themselves as Blue chips, James et al (1990)

### 2.3 Assessing the Appropriate P/E Ratio

The usual way of using the P/E ratio model to select shares is to go through the following steps. Analysts will look at number of previous years variables such as market price per share and earning per share in their analysis. In the summary data that they present their share evaluation conclusion, they are likely to show one-year historical figure and two forecast years figures. This will be next financial year to be reported and the following year. It is normal that three year market price, earnings per share and derived P/E ratio be presented. Forecast P/E ratios can then be derived from the historical data. As mentioned above a P/E ratio relative comparing an individual companies ratio with the market or industry will be presented.

An analyst may then choose stock on the basis of forecasted P/E ratios. The factors that are likely to be considered are growth rate of earnings, both past and present, management as well as the nature and prospect of the industry, competitive Positioning of the company, and so forth. The forecasted and therefore appropriate P/E ratio is compared with the current P/E ratio. If appropriate exceeds current, then the stock is a buy: if current exceeds appropriate, the stock is a sell. Comparison will also be made based on forecast earnings. As an alternative to the blending of factor and derivation of the appropriate P/E ratio is that the current P/E ratio may be compared with the historical sector on the Average P/E ratio range for the last 10 years. Thus a stock that has traded in a sector relative range of 120 – 150 on a current relative 125 would appear cheap.

Analysts use a concept of normalised earnings in their P/E Ratio assessment. In cyclical sector, a high P/E ratio may not signify growth prospects but collapse of earnings and the market assessment that they will recover.

In a study conducted by Bing (1990) he found out that several techniques are favoured by analysts in determining the proper P/E multiples. Majority of the analysts used time horizons from one to three years; preferred to use several techniques in combination rather than sticking to one. Seventy five (75) percents of analysts surveyed use 'normal' multiplier rules of thumb as follows: They compared the current P/E with what they considered normal for the stock in question then compare price times the estimated future earnings with what they considered a normal multiplier and the growth of earnings of individual stock with industry group multiple and earnings growth.

### **Growth of Earnings.**

Stock prices reflect what investors think a company will be worth and so future growth is already accounted for in the stock price. But, the EPS figure is (usually) based on earnings from the last four quarters. If a company is expected to grow then you'd assume earnings would grow as well? As a result, a better interpretation is that the P/E ratio is actually a reflection of the market's optimism concerning a firm's growth prospects, Ida (1998)

It's difficult generalising whether a particular P/E is high or low without taking into account two main factors, individual company growth rate and industry factors. Company growth rate-How fast the company has been growing in the past, and are rates expected to increase (or at least continue) into the future? Sometimes it isn't right if a company has only grown at 5% in the past and yet has a P/E in the stratosphere



P/E ratio could vary from industry to industry. Comparing companies in the same industry is useful in identifying ones with odd P/E ratio. For example, utilities typically have low multiples on the other hand technology stocks are characterised by screaming growth rates and change. Comparing a tech to a utility is useless; only compare a high growth company to another or to the industry average, Moffat (2000).

#### **2.4 Are Low P/E Really A Bargain?**

With the advent of computerised screening of stock databases, low P/E stocks that have been mispriced have become more and more rare. When Ben Graham (2000) formulated many of his principles for investing, one had to search manually through pages of stocks tables in order to ferret out companies that had extremely low P/Es. Today, all you have to do is punch a few buttons on an online database and you have a list as long as your arm

This screening has added efficiency to the market. When you see a low P/E stock these days more often than not it deserves to have a low P/E because of its questionable future prospects. As intelligent investors value companies based on future prospects and not past performance. Stocks with low P/Es often have dark clouds looming in the months ahead. This is not to say that you cannot still find some great low P/E stocks that for some reasons the market has simply overlooked --- you still can and it happens all the time. Rather, you need to confirm the value in these companies by applying some other valuation techniques, Dixon (2002).

## 2.5 P/E Ratio VS Earnings Yields

Haar, (2000) wanted to find out why people use P/E ratios rather than earnings yield. He observed that investors' usual measure of how "expensive" a stock is its price-to-earnings ratio, often phrased as "How much you have to spend on the stock to buy shillings of earnings. "Further he suspected that the use of P/E makes it hard to compare quarter-to quarter numbers for a given company, because variations in EPS lead to inverse linear effects, even if they know that they don't. His rule of thumb: when formulating a ration between a number which can be negative (in third case, earnings) and one which can only be positive (share price), always use the positive value as the denominator. Therefore the earnings yield is exactly the right variable to be employed by investors. It can serve the same role as P/E, except that its doesn't have the discontinuity around zero. It has an obvious mapping to intuitive meanings, and its much more useful if you are further doing computations based on the ratio.

The earnings yields is the inverse of the P/E: the ratio of earnings to price, and is usually --- by analogy to dividend yield --- described as percentage; it can be understood as " the amount of earnings you buy with one shilling of stock." expressed When expressed as percentage, the earnings yield is easy to interpret as pennies of earnings per shilling of investment" The complication is that if a company is not profitable. Either you have a negative P/E or (more commonly, few public investors --- and certainly few investors who looked at fundamentals --- were interested in companies without profits, so it may have been a moo issue. But, today, with plenty of public companies in the red, investors should use earnings yield instead of P/E ratio, Colvin (1998).

## 2.6 P/E Ratio and Inflation

Studies done on P/E ratio and inflation generally come to the same conclusion that the P/E ratio is generally higher during time of low inflation. It affects equity prices in several ways. Most importantly, investors are willing to pay less for certain level of earnings when inflation is low (and expected to remain so.) There are two reasons to explain this. First low inflation means a higher probability of continued economic expansion whereas modest inflation signals that it isn't likely for the central bank to slow down the economy with interest rate hikes. Secondly, during times of low inflation, the quality of earnings is considered to be high and real. History has shown that investors realise this phenomenon and take inflation into account when valuing stock. When inflation is high, P/E ratios are low; when inflation is low, P/E ratios are high, Rappaport, Maubaoussin (2001)

### Price- Earnings ratio and risk

P/E ratio is negatively related to the stocks risk Ross (1998). Successful investors achieve broad diversification while insisting on holding high quality stocks. The modern investment theory tells us that investors look at both return and risk. Their objective is to limit the premiums paid for risk factors, The market price conveys little information as to the risk inherent in common stocks hence investors have to rely on some other share parameter such as earnings per share, book value per share, sales per share, or cash flow per share.

When making such comparisons we come up with such ratios as the price –to earnings ratio, price-to book ratio, price-to sales ratio, and price-to cash flow ratio. All may be useful in making judgements about the risk inherent in the price level of a



common stock, but by far the most common, and arguably the most useful, is the price-earnings ratio (P/E). In short, a Shs. Stock selling at 40 times earnings is generally considered to be higher priced than a Shs. 40 Stock selling at 20 times earnings, Dow (2002).

Sears and Tremmepolel (1993) suggest to owners of common stocks can easily address their tolerance for risk by owning broadly diversified portfolios of high quality securities. In this regard, however, it may also limit their exposure to risk by limiting their exposure to stocks with unusually high price-earnings ratios.

### **The Relative Price Earnings ratio (R P/E)**

Dow (2002) points out the relative price-earnings ratio (RP/E) as an important tool in assessing the vulnerability of a stock to an idiosyncratic collapse of its price earnings ratio. The RP/E of a stock is its actual P/E divided by that of the average stock. If the average stock has a P/E of 20, a stock with a P/E of 10 has an RP/E of 0.50 and stock with a P/E of 20 has an RP/E of 1.00. The attractiveness of the RP/E is that it controls for the overall level movement in the market. In other words, though we can argue that a stock should have a higher P/E today than it had a decade or two ago due to higher stock price level, this argument does not apply to the RP/E.

In terms of risk, we can argue that, if the company were, all at once to be perceived as having no more reliability and growth potential than that of the average company, it should immediately lose its premium and its market price per share will also decline. Similarly, if a stock sells at an RP/E of less than 1.00 it is presumably because its



future profitability is regarded as less reliable than that of the average company or its profits are expected to grow less rapidly than those of the average company.

Lary Swedros (2001) Looked at the returns investors received when they bought stock with different perceptions of risk he found that the perception of low risk which are usually times of good economic performance and a bull market investor purchasing stock with high P/E ratios earned a medium return of just 5% per annum over the next ten years. He argued that during this time when investors perceive low levels of risk this usually translate into high prices and low risk premiums. Those low risk premiums, however also translate into low future expected returns exactly the opposite of what investors expect.

When the investors perception of risk was high during bear market he found out that those investors who bought shares with low P/Es ratio had medium returns of 16% per annum over the next ten years. He justifies this by saying that investors perceive a relatively high level of risk which translate into low prices and high risk Premiums. These high risk premiums however translate into high future expected returns. He concludes that investors buying stock when the P/E ratio are low (when the perceived risk is high and seemingly no one want to own stocks). Out perform investors who buy stock when P/E ratios are high (perceived risk is low and seemingly everyone is jumping on the equity band wagon)

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## 2.8 limitations of P/E Ratio

Besides the fact that the P/E is only valid in certain circumstances, there are also a number of pitfalls in P/E analysis. Earnings is an accounting figure that includes non-cash items. The guidelines for determining earnings are governed by accounting rules (GAAP) that change over time and are different in each country. To make matters more complicated, EPS can be twisted and prodded into many different numbers depending on how you do the books. The results are that we have even more difficulty in knowing whether we are comparing the same figures or apples to oranges, Balvers et al (1998). Edwards (1997) compared the earnings public companies announced to the U.S for creative accounting some opponents of earnings have argued that earnings are inappropriate measures of economic returns because of its flexibility in choosing the accounting methods. Accounting earnings are a reflection of a series of more or less arbitrary choices of accounting methods. (Friend & Puckett, 1940, Craig et al 1987). Firms reported earnings could be changed substantially by adopting different procedures. A switch in the depreciation method used for reporting purposes directly affects earnings P/E Ratio share for example. Yet it has no effect on cash flow, since depreciation is a non-cash change. (The depreciation method used for tax purposes does affect cash flow).

Inflation is another pitfall in times of high inflation, inventory and depreciation costs tend to be understated because the replacement costs of goods and equipment rises with the general level of prices. Thus, P/E ratios tend to be lower during times of high inflation because the market sees earnings as artificially distorted upwards. As All ratios, its more valuable to look at the P/E over time in order to determine the trend. Inflation makes this difficult, as past information is less useful today.

P/E Ratio can be interpreted differently. A low P/E ratio does not necessarily mean that a company is undervalued. Rather, it could mean that the market believes the company will be in trouble in the short future. Stocks that go down usually do so for a reason, it may be that a company has warned that earnings will come in lower than expected. This wouldn't be reflected in a trailing P/E ratio until earnings are actually released, during which time the company may look undervalued.

Pandey (1990) acknowledge that there is a big problem in valuing loss making companies. Obviously a negative P/E Ratio is an inconsistent situation because it is like saying that the investor pays an amount equivalent to the P/E Ratio for every loss made or that the investor take away an amount equivalent to P/E for every rupee profit made, neither of which make sense

## 2.9 Empirical literature

Whitebeck and Kisor (1963) used a sample of 135 New York stock exchange stocks to estimate the relations between the P/E Ratio, historical growth, historical payout ratio and risk - which they measured on the volatility of part earnings around the earnings trend. The equation they estimate was.

$$\text{P/E Ratio} = 8.2 + (1.5 \times \text{earnings growth}) + 6.7 \times \text{the payout ratio} - (0.2 \times \text{standard deviation of earnings}).$$

This equation gives the estimate of the simultaneous impact of three factors on the level of the P/E Ratio. The signs tell us the direction of the impact. The equation tells that the P/E Ratio increased as a company's earnings growth increased and the greater



was the payout ratio the P/E Ratio fell as the risk increased. This would suggest that the existing level of P/E ratio tell us about the pending adjustments in future earnings and risk. The equation could be used in share selection in the following manner. For any share, calculate the values of the three variables and then use the equation to estimate the "appropriate P/E Ratio" compare the forecast with the current (or published) ratio, then sell if the forecast is below this current ratio and buy if it is above.

Malkiel and Cragg (1970) collected data for 178 U.S corporations and studied the P/E Ratio for the period 1961 - 65 in an attempt to explain P/E Ratio difference. They conclude that P/E Ratio increases with increase in long term growth, short term growth and the payout ratio and that the P/E Ratio is related negatively to risk i.e. as this ratio increases risk reduces.

Cottle et al (1988) suggest that P/E Ratio would be related to past earnings and sales growth, profitability stability of past earnings financial strength and quality of management as well as the nature and prospects of the industry competitive position of the company and so forth.

While it is generally agreed that low P/E Ratio stock have produced abnormal return, there have been disputes as to whether the effect vanishes when we adjust for size Reinganum, (1981), and Banz and Breen, (1986) or whether it subsumes the size effect (Basu 1983) or whether both variables have independent effect Cook and Resolf (1984) Fama and French (1992) found that although that low P/E Ratio are related to returns once one has controlled for size and price to book, picking low P/E

Ratio stock offers no extra return. Roil (1995) examined the relationship of returns to various factor such as size, earnings-price ratio, book to market in the U.S over the period 1985-94 and found that low P/E Ratio stock produced the highest risk adjusted returns regardless of whether the risk was measured by the CAPM or APT.

Dow (1998) conducted a study on the Nifty fifty of the 1970s These were a collection of the most popular growth stocks of the late 1960s and early 1970s These stock were the favourites of institutional investors and often referred to as "one-decision" stocks. Meaning that one purchased them to hold them forever because it was believed that only direction in which they could go was up. They studied 25 stocks with the low P/E and 25 stocks with high P/E. They found out that while the Decline of the 25 stock with the lower P/Es averaged 5.7 percent the decline of the 25 with higher P/Es averaged 67 percent.

Maicelle Arak studied the effect of stock buybacks on the earnings. He pointed out that the general perception that earnings per share will increase is true for operating profit per share. But it is not necessary true that buybacks raise the net income per share. He argues that it all depends upon the earnings - price ratio relative to the interest rate. When the price-earnings ration is "low" and consequently its inverse, the earnings price ratio, is above the after tax interest rate, share buy back have a positive impact on net income per share. In contrast in an environment where the price earnings ratio is high, high enough to drive the inverse below the after tax rate of interest, reduction in outstanding shares through buy back actually has a detrimental effect on net income per share.

Bower and Bower (1990) discovered that higher P/E ratios were associated with more rapid earnings growth and higher dividend payout. Lower P/E ratio with less marketability, greater conformity to market price movement and higher price variability.

Victor Niedershoffer and Laurel Kanner conducted a study of a group of the Nasdaq 100 for the period 1997 - 99. This group consisted of stocks with high P/Es. They used earnings price per ratio or the earnings yield, rather than the usual P/E ratio since this does away with the discontinuities when a company loses money, as well as the meaningless of the P/E when earnings are very small. They calculated the price appreciation of this stock in the next year relative to their earnings price ratio at the beginning of the year. The results of their study supported the view that higher the P/E the better. They found 44 instances in which a company lost money and had negative P/E ratio. These companies stock gained an average of 100% in the next year. The 44 companies with the lowest P/E (Higher E/P) ratio returned an average of 47%. The 183 companies that had middling earnings price ratios returned a nice 72%.

Senchack and Martin (1987), examined the relative performance of low price to sales ratio and low PER strategies for the period 1975 - 1984 they studied 400 - 500 randomly selected firms quoted at the NYSE and AMEX. They excluded financial services such as banks and insurance companies that do not generate sales in the usual accounting sense. The result of their study suggested that low price to sales ratio stocks produce abnormal returns. They were subject to greater risks but still produce higher risk adjusted returns than high price to sales ratio stocks. Low PER stocks in

## CHAPTER THREE

### 3.1 Research Methodology

### 3.2 Research design

A survey of the quoted companies, which make up the Nairobi 20 share index, will be carried out for the period from 1996 - 2002.

### 3.3 Population of the Study

We made use of all the companies which are quoted at the NSE for the period of study. Our population consisted of all the fifty two companies.

### 3.4 Data Collection

The study made use of secondary data. For each company the weekly share prices for the period of study was collected from the NSE.

### 3.5 Data Analysis

We calculated P/E Ratio for each company for the years 96, 97, and 98 and ranked them.

We assumed that investors use the buy and hold strategy .ie our portfolio remained the same for the entire period of study

We then divided the stocks into three groups, one group labelled (L) for those stocks with low P/E ratios,(M) for those with medium P/E ratios and companies and (H) for those with high P/E ratios. we then calculated the returns and risk for 1999,2000 and 2001 for the (M) and (L) groups and compared them to determine whether there is any significant difference in the two groups.



CHAPTER FOUR

The P/E Ratio was determined by dividing price P/E Ratio by the latest 12-month earning P/E Ratio share.

The research compares the returns of shares with high P/E ratio to those of with low P/E ratio. The P/E Ratio = 
$$\frac{\text{Current market price}}{\text{Latest 12 months earnings}}$$

We then used the f-distribution between means to test whether there is any significant difference between the two groups.

The earnings ratio for each company for the period 1996-1998 is calculated by dividing the market price per share (M.P.S) of the company ordinary share by its earnings per share (E.P.S.). The EPS is calculated by dividing the net profit or loss available to ordinary shareholders by the weighted number of ordinary shares outstanding in the period. The results are shown on the table below.

Table 16. P/E ratio for companies considered in the study for the period 1996-1998

Company	Code	Class	Per1996	Per1997	Per1998	Per1999	Per2000
EXPRESS	EXP	2	24.36	8.77	19.72	19.62	12.77
SAFARI	SAF	1	17.75	22.42	21.81	21.20	23.72
TOTAL	TOT	4	14.87	4.05	5.14	27.21	21.01
PRIME	PRM	4	42.03	15.12	23.72	16.04	7.23
TRINITY	TRN	1	12.94	12.94	33.07	22.86	8.60
KICUKU	KIC	1	7.22	3.92	19.20	11.57	7.37
AFRICA	AFR	1	25.13	15.45	26.62	9.39	13.85
AFRICA	AFR	1	24.47	24.00	5.02	14.51	20.93
SAFARI	SAF	20	5.74	8.77	8.22	8.21	4.87
SAFARI	SAF	4	12.20	4.81	4.96	5.17	7.63
SAFARI	SAF	2	1.24	1.04	0.22	1.48	1.62
SAFARI	SAF	2	4.01	4.77	7.98	3.26	3.72
SAFARI	SAF	1	1.26	1.84	6.78	5.03	1.22
SAFARI	SAF	1	3.22	2.41	4.81	2.47	2.02
SAFARI	SAF	1	41.27	11.23	1.80	2.88	4.14
SAFARI	SAF	1	12.28	11.34	1.22	3.42	11.02
SAFARI	SAF	1	2.04	4.32	2.16	6.52	2.08
SAFARI	SAF	1	1.12	2.86	2.84	4.02	2.74
SAFARI	SAF	1	3.27	7.21	1.22	2.43	2.73

## CHAPTER FOUR

### FINDINGS AND INTERPRETATIONS:

#### 4.1 INTRODUCTION

This research compares the returns of shares with high P/E ratio to those of with low P/E ratio we divide the companies into three groups, high, medium and low on the basis of their P/E ratios. To get a better insight, we concentrated on two groups i.e low and high. This gives us a chance to avoid marginal cases.

#### 4.2 P/E CLASSIFICATION OF SHARES

The price earnings ratio for each company for the period 1996-1998 is calculated by dividing the market price per share. (M.P.S) of the company ordinary share by its earnings per share (E.P.S.). The EPS is calculated by dividing the net profit or loss unsuitable to ordinary shareholders by the weighted number of ordinary shares outstanding in the period. The results are shown on the table 1a below.

**Table 1a. P/E ratio for companies considered in the study for the period**

1996-1999

Table... Companies with High and Low PE Ratios 1996 to 1999

Company	Code	ClasB	Per2000	Per1999	Per1998	Per1997	Per1996	P/RatioAv
Express Ltd Ord 5.00	EXPRES	2	-14.38	-6.77	10.32	16.02	12.17	12.84
Sasini Tea & Coffee Ltd Ord 5.00	SASINI	1	11.71	65.46	21.81	23.95	23.52	23.09
Total Kenya Ltd Ord 5.00	TOTAL	4	14.91	4.90	8.55	22.65	21.03	17.41
Bamburi Cement Ltd Ord 5.00	BAMB	4	42.38	15.12	23.00	16.54	9.23	16.26
Dunlop Kenya Ord 5.00	DUNLOP	4		12.98	33.07	22.96	6.68	20.90
I.C.D.C Investments Co Ltd Ord 5.00	ICDC	3	5.26	5.22	10.20	11.51	7.37	9.69
Kakuzi Ord.5.00	KAKUZI	1	-38.13	46.46	20.62	9.30	13.45	14.46
Kapchorua Tea Co. Ltd Ord Ord 5.00	KAPCHO	1	39.47	24.86	5.35	14.51	50.93	23.60
Barclays Bank Ltd Ord 10.00	BBK	3	6.74	6.77	6.24	5.21	4.92	5.46
British American Tobacco Kenya Ltd Ord 10.00	BAT	4	10.38	4.61	4.96	5.80	7.49	6.08
C.F.C Bank Ltd ord.5.00	CFC	3	4.28	5.56	5.22	5.46	8.08	6.25
Kenya Commercial Bank Ltd Ord 10.00	KCB	3	-5.97	-2.27	7.55	3.36	3.23	4.72
Kenya Power & Lighting Ltd Ord 20.00	KPL	4	-1.90	5.62	6.76	5.93	2.22	4.97
National Bank of Kenya Ltd Ord 5.00	NBK	3	-0.29	-0.41	-0.61	6.47	5.33	3.73
Car & General (K) Ltd Ord 5.00	CARGEN	2	-51.97	11.29	-7.90	-2.96	-4.18	-5.01
City Trust Ltd Ord 5.00	CTRUST	3	10.38	11.04	3.22	5.83	1.50	3.52
CMC Holdings Ltd Ord 5.00	CMC	2	3.04	4.34	5.16	5.03	3.99	4.73
Kenya Airways Ltd Ord 5.00	KENAIR	2	1.42	2.99	2.84	4.03	2.76	3.21
Kenya Oil Co Ltd Ord 5.00	KENOL	4	3.37	2.31	2.32	2.62	3.78	2.91

## Key

per 2000 – P/E ratio for year 2000

per 1999 – P/E ratio for year 1999

per 1998 – P/E ratio for year 1998

per 1997 – P/E ratio for year 1997

per 1996 – P/E ratio for year 1996

P/ ratio Avr – P/E ratio average for the five years

We ranked the companies on the basis of P/E ratio in descending order for each year from 1996 to 1998 and then got the average rank for the three years, table 1b below

Eight companies; Express, Sasini, Total, Bamburi, Dunlop, I.C.D.C. Kakuzi and Kapchorua were classified as having high P/E ratios while eleven companies Barclays, BAT, C.F.C, KCB, KPLC, NBK, C&G, City Trust, CMC India, Kenya Airways and Kenya Oil were classified as having low P/E ratios.

**Table 1b P/E rankings for companies considered in the study**

Company	AvrRnkC	98Rnk	98RnkC	97Rnk	97RnkC	96Rnk	96RnkC	Rating
Express Ltd Ord 5.00	2	10	1	10	1	15	1	High
Sasini Tea & Coffee Ltd Ord 5.00	1	6	1	3	1	9	1	High
Total Kenya Ltd Ord 5.00	1	14	1	5	1	10	1	High
Bamburi Cement Ltd Ord 5.00	1	5	1	9	1	20	2	High
Dunlop Kenya Ord 5.00	1	3	1	4	1	29	2	High
I.C.D.C Investments Co Ltd Ord 5.00	2	11	1	14	1	26	2	High
Kakuzi Ord.5.00	1	7	1	21	2	13	1	High
Kapchorua Tea Co. Ltd Ord Ord 5.00	1	32	2	11	1	3	1	High
Barclays Bank Ltd Ord 10.00	3	27	2	40	3	36	3	Low
British American Tobacco Kenya Ltd Ord 10.00	3	35	3	38	3	25	2	Low
C.F.C Bank Ltd ord.5.00	3	33	3	39	3	23	2	Low
Kenya Commercial Bank Ltd Ord 10.00	3	21	2	43	3	39	3	Low
Kenya Power & Lighting Ltd Ord 20.00	3	24	2	35	3	42	3	Low
National Bank of Kenya Ltd Ord 5.00	3	42	3	32	2	35	3	Low
Car & General (K) Ltd Ord 5.00	3	46	3	45	3	46	3	Low
City Trust Ltd Ord 5.00	3	39	3	37	3	43	3	Low
CMC Holdings Ltd Ord 5.00	3	34	3	41	3	37	3	Low
Kenya Airways Ltd Ord 5.00	3	40	3	42	3	41	3	Low
Kenya Oil Co Ltd Ord 5.00	3	41	3	44	3	38	3	Low

## Key

Avr Rnk – Average rank

AvrRnkC – Average rank for class

X Rnk – Individual share rank for year X

Y RnkC - Class rank for year Y

In 1996 Kapchorua Tea recorded the highest P/E ratio of 50.9 while Car& General recorded the lowest of -4.2. In 1997 Dunlop had the highest P/E ratio of 22.9 while Car & General again recorded the lowest of -2.9. In 1998 Dunlop took the lead costing a P/E of 33.1 while National Bank posted the lowest of 0.6. This means that in 1996, investors were willing to pay Shs 50.9, for every one shilling of earnings of Kapchorua and Shs 22.9 and Shs 33.1 for Dunlop for 1997 and 1998 while on the same note they were willing to take away Shs 4.2 and Shs 2.9 for every one shillings of earnings of Car & General in 1996 and 1997 and Shs 0.6 for every shilling of earnings of National Bank in 1998.

We then established whether the mean of the two groups of P/E are different see appendix iii. The high P/E ratio group had an average of 17.28 times, while that of the low P/E ratio group had an average of 3.69 times. We found that the average ratios for the low and high P/E are significantly different since they had an F value of 54.10 and P value of 0.00.

Since they are statistically different, we then proceeded to determine whether the returns for the two groups are different. The analysis was done for each year for the period 1999-2001.



## 4.3 ANALYSIS OF SHARE RETURNS

### 4.3.1 CALCULATING THE SHARE RETURNS

The returns of each share were determined as the sum of capital gains and dividend yield on a weekly basis. The dividend per week in any of the years within the period of study was determined by dividing the dividends declared in that year by the total number of weeks in the year. From this we generated a time series of weekly returns as can be seen in appendix IV. For one hundred and fifty four weeks (the number of weeks from January 1999-December 2001)

### 4.3.2 RETURNS FOR 1999

As can be seen in table 2a the market outperformed both the low and the high.

Ratio strategic having a mean return of -0.1 compared to -0.3 and -0.2 for the high and low P/E ratios respectively though the market declined, the decline was more pronounced in the case of companies classified as having high P/E ratios. The difference between maximum and minimum return in highest for the low P/E ratios stocks. This implies that the stocks are more risky than the high P/E ratio stocks.

**Table 2a the mean returns for the market, the high and low P/E ratio for 1999**

Variable	N	Mean	StDev	Minimum	Maximum	Range%
Rmarket	53	-0.094	1.620	-3.243	6.039	2.86
HPEAvrt	53	-0.266	2.148	-6.056	8.029	2.33
LPEAvrt	53	-0.157	2.150	-4.169	9.274	3.22

On the comparing the high P/E ratio stocks with the low P/E ratio stocks, the result on table 2b confirm that the two are not statistically different since they have an F value of 0.07 and a P value of 0.794 which is less than our significant level of 0.10. The

standard deviations of both groups are round 2.15, suggesting that the variability of the returns for the two groups is not different.

**TABLE 2B ANALYSIS OF VARIANCE FOR 1999 FOR THE HIGH AND LOW P/E RATIO**

Table 2b Analysis of Variance - 1999-High PE Ratio and Low PE ratio						
Source		DF	SS	MS	F	P
Factor		1	0.32	0.32	0.07	0.794
Error		104	480.09	4.62		
Total		105	480.4			
Individual 95% CIs For Mean Based on Pooled StDev						
Level	N	Mean	StDev	-----+-----+-----+-----+-		
HPEAvrt	53	0.266	2.148	(------*-----)		
LPEAvrt	53	0.157	2.15	(------*-----)		
-----+-----+-----+-----+-						
Pooled StDev =		2.149		-0.70	-0.35	0.00 0.35

The market performance and the performance of high P/E ratio stock are not different from table 2c the F value is 0.22 and the P value 0.642 but the high P/E ratio stock registered a higher standard deviation than the market.

**Table 2c one way ANOVA for 1999 for the high P/E ratios and market returns**

Table 2c One-way ANOVA: - 1999-HPEAvrt, Rmarket						
Analysis of Variance						
Source		DF	SS	MS	F	P
Factor		1	0.78	0.78	0.22	0.642
Error		104	376.34	3.62		
Total		105	377.12			
Individual 95% CIs For Mean Based on Pooled StDev						
Level	N	Mean	StDev	---+-----+-----+-----+---		
HPEAvrt	53	-0.266	2.148	(------*-----)		
Rmarket	53	-0.094	1.62	(------*-----)		
---+-----+-----+-----+---						
Pooled StDev =		1.902		-0.70	-0.35	0.00 0.35

On the market performance and the performance of low P/E ratio stock, the result in table 2d shows that they are not different with an F value of 0.03 and P value of 0.866 the low P/E ratio stocks had a higher standard deviation than the market.

**Table 2d in one way ANOVA for 1999 for the low P/E ratio and market returns**

Table 2d One-way ANOVA: - 1999-LPEAvrt, Rmarket		DF	SS	MS	F	P
Analysis of Variance						
Source						
Factor		1	0.1	0.1	0.03	0.866
Error		104	376.77	3.62		
Total		105	376.87			
Individual 95% CIs For Mean Based on Pooled StDev						
Level	N	Mean	StDev	---+-----+-----+-----+---		
LPEAvrt	53	0.157	2.15	(------*-----)		
Rmarket	53	0.094	1.62	(------*-----)		
Pooled StDev =		1.903		-0.60	-0.30	0.00 0.30

### 4.3.3 RETURNS FOR 2000

Though both strategies outperformed the market, the results in table 3a shows that in this year, the low P/E ratio stocks outperformed the high P/E ratio stocks. The low P/E ratios stock posted a mean return of -0.17. Like in 1999, the decline in returns was more pronounced in the case of those companies classified as having high P/E ratio. This makes high P/E ratio shares to appear more risky than their low P/E counterparts. In this year looking at the mean returns alone, stocks with low P/E ratios would have been more appealing to investors than stocks with high P/E ratios.

**Table 3a comparison of returns for the market, high and low P/E ratios**

Variable	N	Mean	StDev	Minimum	Maximum	Range%
Rmarket	52	-0.315	0.906	-2.606	2.044	1.78
HPEAvrt	52	-0.168	0.991	-4.075	1.419	1.35
LPEAvrt	52	-0.177	2.048	-5.716	6.895	2.21

The difference between the maximum and minimum returns is highest for the low P/E ratio stocks and looking at the standard deviation the low P/E ratios stock posted the highest of 2.0. This shows that these stocks are more risky than the high P/E ratios stocks and hence looking at risk alone investors would have opted for the high P/E ratios stocks.

On comparing the high and the low P/E ratios stocks, the results in table 3 b shows that in the year 2000 the two are not significantly different, F value of 0 and a P valued of 0.9. The low P/E ratio stocks had a standard deviation of 2.0 which is higher than that of the market of 0.9. This is an unusual year in that the low P/E ratios are riskier than the market.

**Table 3b one way ANOVA for year 2000 for the high and low P/E ratio**

Analysis of Variance						
Source	DF	SS	MS	F	P	
Factor	1		0	0	0	0.976
Error	102	264.04	2.59			
Total	103	264.04				
Individual 95% CIs For Mean Based on Pooled StDev						
Level	N	Mean	StDev	-----+-----+-----+----- +-----+-----+-----+-----		
HPEAvrt	52	-0.168	0.991	(------*-----)		
LPEAvrt	52	-0.177	2.048	(------*-----)		
-----+-----+-----+----- +-----+-----+-----+-----						
Pooled StDev =	1.609	-0.50	-0.25	0.00		
0.25						



The market performance and the performance of high P/E ratio, and the market performance and the performance of the low P/E ratios stock as can be seen in table 3c and d are not statistically significant. The first case the F value is 0.2 and the P value is 0.7 while the later has an F value of 0.6 and a P value of 0.4. The low P/E ratio registered a higher standard deviation than the market but the high P/E ratios stocks and the market almost had the same standard deviation of around 0.9.

**Table 3c one way ANOVA for the year 2000 for the market and low P/E ratio returns**

Table 3c One-way ANOVA: -2000- Rmarket, LPEAvrt						
Analysis of Variance						
Source	DF	SS	MS	F	P	
Factor	1	0.5	0.5	0.2	0.658	
Error	102	255.76	2.51			
Total	103	256.26				
Individual 95% CIs For Mean Based on Pooled StDev						
Level	N	Mean	StDev	-----+-----+-----+-----+		
Rmarket	52	-0.315	0.906	(-)-----*-----		
LPEAvrt	52	-0.177	2.048	(-)-----*-----		
-----+-----+-----+-----+						
Pooled StDev =	1.584	-0.60	-0.30	0.00		
	0.30					

**Table 3d one way ANOVA for the year 2000 for the market and high P/E ratio returns**

Table 3d One-way ANOVA: -2000- Rmarket, HPEAvrt						
Analysis of Variance						
Source	DF	SS	MS	F	P	
Factor	1	0.565	0.565	0.63	0.43	
Error	102	91.916	0.901			
Total	103	92.481				
Individual 95% CIs For Mean Based on Pooled StDev						
Level	N	Mean	StDev	-----+-----+-----+-----		
Rmarket	52	-0.3153	0.9055	(-)-----*-----		
HPEAvrt	52	-0.1678	0.9911	(-)-----*-----		
-----+-----+-----+-----						
Pooled StDev =	0.9493	-0.40	-0.20	-0.00		

#### 4.3.4 RETURNS FOR 2001

The low P/E ratio stocks had the highest mean returns of -0.04 compared to the high P/E ratio of -0.78 and the market -0.21. Low P/E ratio stocks outperformed both the market and the high P/E ratio stocks. Looking at the standard deviation, the high P/E ratio stocks had the highest standard deviation of 3.2. The decline in returns was more pronounced for this group and still had the highest difference between the maximum and minimum returns. This implies that these stocks are more risky than the low P/E ratio stocks which is puzzling, Ross (1998) argued that the P/E ratio is negatively related to stocks risk hence is expected that high P/E ratio stocks have higher risks than low P/E ratio stocks.

Looking at both risks and returns, the low P/E ratio stocks had a higher return than the high P/E ratio but with lower risk which is also rather unusual since the perception of low level risks usually translate into high prices and low risk premiums, Larry Swedros (2001).

**Table 4a comparison of mean returns for year 2001 for the market, high and low P/E ratios**

Table 4a Comparing 2001 Returns For The Market, High and Low P/E Ratios						
Variable	N	Mean	StDev	Minimum	Maximum	Range%
Rmarket	50	-0.218	1.424	-3.006	4.098	2.36
HPEAvrt	50	-0.788	3.161	-9.108	16.578	2.82
LPEAvrt	50	-0.041	2.716	-6.163	12.47	3.02

On comparing the market performance and the performance of P/E ratio, the results on table 4b show that the two are not significantly different with an F value of 1.4 and a P value of 2.4. The high P/E ratio stocks have a higher standard deviation of 3.2 than the markets 1.1.

**Table 4b one way ANOVA for year 2001 for the market and high P/E ratios**

returns

Analysis of Variance						
Source	DF	SS	MS	F	P	
Factor	1		8.12	8.12	1.35	0.248
Error	98	588.88	6.01			
Total	99	597				
Individual 95% CIs For Mean Based on Pooled StDev						
Level	N	Mean	StDev	-----+-----+-----+-----+-----		
				+ -		
Rmarket	50	-0.218	1.424	-)	(-----*-----)	
HPEAvrt	50	-0.788	3.161	-)	(-----*-----)	
-----+-----+-----+-----+-----						
Pooled StDev =	2.451	-1.20	-0.60	0.00		
0.60						

Finally table 4d shows the results of the comparison of the performance of the high and low P/E ratio stocks. The results confirm that they are not statistically different since they have an F value of 1.6 and a P value of 1.6. The high P/E ratio registered a high standard deviation of 3.2 compared to 2.7 for the low ratio stocks.

**Table 4d one way ANOVA for the for year 2001 for the low and high P/E ratios**

returns

Analysis of Variance						
Source	DF	SS	MS	F	P	
Factor	1		13.95	13.95	1.61	0.208
Error	98	850.9	8.68			
Total	99	864.85				
Individual 95% CIs For Mean Based on Pooled StDev						
Level	N	Mean	StDev	-----+-----+-----+-----+-----		
HPEAvrt	50	-0.788	3.161	(-----*-----)		
LPEAvrt	50	-0.041	2.716	(-----*-----)		
-----+-----+-----+-----+-----						
Pooled StDev =	2.947	-1.40	-0.70	0.00		
0.70						

#### 4.5 ANALYSIS FOR THE THREE YEARS.

As it can be seen from the three tables we used the one way ANOVA to test our hypothesis. In our case we wanted to find out whether stocks with high and low P/E ratio stocks produced different results in terms of risks and return. After running the one way ANOVA test for the three years, in 1999 the F value was 0.07 and a P value of 0.79 in year 2000 the F value was 0 and the P value of 0.9 whereas the F value was 1.6 with the P value of 0.2 in all these cases they were not statistically different hence we fail to reject our null hypothesis and conclude that there is no statistically significant difference in returns of share with low and high P/E ratios for companies quoted at the Nairobi Stock Exchange.



## CHAPTER FIVE

### 5.1 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

Our finding in the analysis of this research have showed that there is no statistically significant difference in returns of shares with low and high P/E ratios of companies listed at the Nairobi Stock Exchange. The findings from this study did not support any of the two schools of thoughts quoted in the study, the contrarian which argues that the low P/E stocks consistently produce returns greater than the average stocks; and Niederhoffer and Kenner (1999) study that asserts that the higher the P/E ratio the better.

What came out clearly from this study is that the low P/E stocks registered higher returns than the high P/E ratio stocks but with a significantly higher risk. Since the difference in returns is not statistically significant, these strategies do not apply in this market and hence investors should use other screening devices in selecting stocks to include in their portfolios. The conclusion would imply that investors should identify other investing strategies.

### 5.2 LIMITATIONS OF THE STUDY

The reliability of share prices is questionable given the low level of trading in this market. The efficiency of this market is weak because investors may not be well informed. Therefore the market prices of the shares in most cases may be the same as the intrinsic value of the stock.

The market had low trading which is a characteristic of most developing markets, some of the stocks considered were taking too long before they were traded. This problem was catalyzed by the adverse political environment which was prevailing during this period of study.

Due to time and money factor, the researcher only concentrated on a few companies.

### 5.3 SUGGESTIONS FOR FURTHER RESEARCH

- The period of study can be extended so as to be in a position to know whether in the long run there is any significant difference in returns and risk of stocks with high and low P/E ratio.
- Researchers can also take into consideration transaction costs when calculating the returns of shares. Transaction costs for small firms tend to be higher than those for large firms because it depends heavily on the rate at which portfolios are turned over.
- The researcher can relax the assumption we have made of buy and hold strategy and consider whether the results will hold when the investors keep on changing the composition of their portfolios.

## APPENDIX I

### COMPANIES THAT CONSTITUTE THE NSE 20 SHARE INDEX (companies considered in the study)

1. Brook Bond
2. Williamson Tea
3. Kakuzi
4. Sasini
5. Uchumi
6. Kenya Airways
7. Tps - Serena
8. Nation Media Group
9. Barclays
10. Diamond Trust
11. Kenya Commercial Bank (K C B)
12. Standard Chartered Bank
13. British American Tobacco K Ltd
14. Bamburi Cement Company
15. Boc Gases Ltd
16. National Industrial Credit (N I C)
17. East African Breweries (E.A.B.L.)
18. Firestone
19. Kenya Power & Lighting Company (K. P. L.C.)
20. Total Kenya Ltd.

APPENDIX II

EARNINGS PER SHARE, ADJUSTED MARKET PRICES PER SHARE AND PRICE EARNINGS RATIO FOR THE YEARS 1996-2000

	Earnings Per Share					Market Price Per Share (Adjusted)					Price to Earnings Ratio					P/RatioAv	
	2000	1999	1998	1997	1996	2000	1999	1998	1997	1996	2000	1999	1998	1997	1996		
	Brooke Bond Ltd Ord 10 00	48,875,000	9.19	4.40	4.70	-4.85	3.38	97.25	104.68	142.00	110.33	168.00	10.586	23.765	30.214		-22.746
Eaagads Ltd Ord 1 25	6,431,400	-1.33	1.14	7.58	3.91	1.42	20.50	26.00	43.17	41.50	25.75	-15.449	22.819	5.695	10.616	18.130	11.480
George Williamson Kenya Ltd Ord 5 00	8,756,320	8.93	6.70	31.79	6.58	1.36	97.00	92.14	141.00	86.00	70.00	10.856	13.745	4.435	13.078	51.564	23.026
Kakuzi Ord 5 00	19,599,999	-1.44	1.87	6.84	10.32	7.25	55.00	87.00	141.00	96.00	97.50	-38.128	46.457	20.622	9.300	13.448	14.457
Kapchorua Tea Co. Ltd Ord Ord 5 00	3,912,000	3.80	6.03	19.06	4.82	1.37	150.00	150.00	102.00	70.00	70.00	39.470	24.864	5.351	14.510	50.928	23.596
Limuru Tea Co. Ltd Ord 20 00	200,000	59.12	46.50	103.81	83.34	40.78	650.00	650.00	750.00	750.00	1000.00	10.995	13.978	7.225	9.000	24.520	13.581
Rea Vipingo Plantations Ltd Ord 5 00	60,000,000	-0.57	-0.11	0.73	0.93	1.43	3.03	4.80	5.99	8.18	9.27	-5.351	-43.617	8.153	8.819	6.466	7.812
Sasini Tea & Coffee Ltd Ord 5 00	38,009,250	2.91	0.69	3.20	2.62	1.67	34.13	44.87	69.84	62.69	39.26	11.711	65.459	21.811	23.945	23.518	23.092
A Baumann & Co Ltd Ord 5 00	3,840,066	1.12	3.30	0.88	-1.52	1.06	9.51	14.89	16.90	15.55	33.00	8.485	4.510	19.127	-10.234	31.138	13.344
Car & General (K) Ltd Ord 5 00	22,279,560	-0.19	0.80	-1.52	-5.44	-4.78	10.00	9.00	12.00	16.10	20.00	-51.970	11.292	-7.901	-2.961	-4.182	-5.015
CMC Holdings Ltd Ord 5 00	24,279,560	5.04	6.91	6.39	7.75	8.11	15.35	30.00	33.00	38.96	32.35	3.044	4.344	5.164	5.027	3.991	4.727
Express Ltd Ord 5 00	4,800,000	-1.24	-2.79	2.77	3.68	6.98	17.90	18.90	28.55	59.00	85.00	-14.385	-6.772	10.322	16.015	12.172	12.836
Kenya Airways Ltd Ord 5 00	461,615,484	6.33	2.61	2.85	1.84	3.07	8.99	7.83	8.09	7.43	8.47	-2.568	-1.611	9.831	7.798	2.813	6.814
Marshalls (E.A.) Ltd Ord 5 00	14,393,106	-7.24	-14.67	2.54	5.03	5.54	18.60	23.63	25.00	39.25	15.58	-2.568	-1.611	9.831	7.798	2.813	6.814
Nation Media Group Ord. 5 00	35,652,630	5.61	7.01	9.16	7.97	5.80	68.88	100.36	137.73	65.50	36.44	12.274	14.324	15.040	8.214	6.280	9.845
Standard Newspapers Group Ord 5 00	12,811,859		-9.41	-0.21	2.67	1.33	7.15	9.94	21.25	52.43	8.00	-1.057	-100.989	19.661	8.015	-25.104	
Tourism Promotion Services Ltd Ord 5 00 (Serer)	38,679,000	2.15	2.05	1.72	1.17	1.36	15.79	16.05	14.50	14.00		7.356	7.826	8.451	11.950	0.000	6.800
Uchumi Supermarket Ltd Ord 5 00	60,000,000	5.33	4.07	5.21	3.75	4.33	48.98	39.29	43.97	39.00	35.65	9.182	9.645	8.439	10.402	8.239	9.027
Barclays Bank Ltd Ord 10 00	185,166,000	11.17	12.17	16.20	14.51	13.38	75.33	82.45	101.02	75.61	65.82	6.745	6.773	6.235	5.210	4.920	5.455
C F C Bank Ltd ord 5 00	100,000,000	2.35	2.06	2.39	2.58	1.88	10.05	11.46	12.48	14.08	15.20	4.278	5.556	5.217	5.457	8.079	6.251
City Trust Ltd Ord 5 00	4,166,046	2.24	2.00	8.09	5.83	17.32	23.25	22.09	26.06	34.00	26.00	10.378	11.044	3.221	5.829	1.501	3.517
Diamond Trust Bank Kenya Ltd Ord 4 00	79,500,000			2.60	1.99	-1.15	14.00	26.00	22.00	22.10	32.00			8.467	11.097	-27.808	-2.748
Housing Finance Co Ltd Ord 5 00	115,000,000	0.45	0.61	2.48	2.58	2.20	5.58	10.25	16.05	15.32	14.55	12.289	16.679	6.460	5.929	6.617	6.335
I C D C Investments Co Ltd Ord 5 00	36364000	8.85	9.76	4.12	2.99	3.14	46.50	50.97	42.00	34.40	23.17	5.255	5.221	10.199	11.509	7.374	9.694
Jubilee Insurance Co. Ltd Ord 5 00	36,000,000		2.96	3.88	3.73	2.62	18.50	23.00	30.30	29.21	26.93		7.759	7.802	7.833	10.295	8.643
Kenya Commercial Bank Ltd Ord 10 00	112,200,000	-4.14	-13.86	8.15	22.87	22.29	24.70	31.42	61.58	76.94	72.05	-5.968	-2.268	7.553	3.364	3.232	4.716
National Bank of Kenya Ltd Ord 5 00	200,000,000	-11.03	-12.14	-14.11	1.94	2.51	3.15	5.03	8.59	12.54	13.40	-0.286	-0.414	-0.609	6.468	5.334	3.731
National Industrial Credit Ltd Ord 5 00	82,414,551	3.79	3.65	3.77	4.84	4.27	17.75	26.94	29.98	40.00	32.72	4.680	7.380	7.953	8.271	7.661	7.962
Pan Africa Insurance Ltd Ord 5 00	24,000,000	0.00	3.06	2.87	2.69	1.66	11.00	26.85	16.66	27.83	25.64		8.771	5.801	10.363	15.441	10.535
Standard Chartered Bank Ltd Ord 5 00	247,243,464	8.80	7.03	5.78	4.31	4.65	48.33	37.21	34.38	31.20	31.98	5.494	5.297	5.947	7.245	6.880	6.691
Athi River Mining Ord 5 00	75,000,000	0.00	0.27	0.17	0.46	0.38	4.01	5.93	6.24	9.05			22.026	36.353	19.467	0.000	18.607
Bamburi Cement Ltd Ord 5 00	362,940,725	0.80	1.74	1.56	2.15	2.11	33.75	26.25	36.00	35.54	19.50	42.385	15.123	23.003	16.537	9.227	16.256
B O C Kenya Ltd Ord 5 00	19525000	3.83	7.44	7.81	6.98	6.17	47.25	64.50	71.21	65.45	65.00	12.348	8.670	9.114	9.375	10.527	9.672
British American Tobacco Kenya Ltd Ord 10 00	100,000,000	5.83	12.37	11.57	6.34	6.31	60.50	56.99	57.38	36.80	47.25	10.383	4.606	4.960	5.804	7.486	6.083
Carbacid Investments Ltd Ord 5 00	9,439,000	9.77	11.50	8.57	6.26	5.92	40.00	55.83	52.08	50.00	66.67	4.094	4.855	6.080	7.985	11.258	8.441
Crown Berger Ltd Ord 5 00	21,570,000	0.00	1.05	2.06	0.25	1.43	9.00	11.05	8.05	9.90	9.50		12.982	33.074	22.959	6.678	20.904
Dunlop Kenya Ord 5 00	10,000,000	0.00	0.76	0.60	0.87	1.53	6.40	9.83	20.00	20.00	10.20	6.163	14.783	6.359	9.309	8.577	8.082
E.A Cables Ltd Ord 5 00	20,250,000	1.50	1.08	3.14	3.16	3.64	9.25	15.95	20.00	29.39	31.25	-0.578	-3.620	-3.170	58.245	10.792	21.956
E.A Packaging Ltd Ord 5 00	7,679,980	-12.97	-3.41	-4.89	0.84	6.39	7.50	12.35	15.50	49.00	69.00	-2.510	-1.149	4.204	19.890	27.451	17.182
E.A Portland Cement Ltd Ord 5 00	90,000,000	-4.66	-9.76	4.17	1.01	0.75	11.70	11.22	17.55	20.00	50.00	6.534	7.033	40.069	6.027	12.950	19.682
East African Breweries Ltd Ord 10 00	108,225,000	11.40	9.94	1.72	8.05	3.86	74.50	69.91	68.79	48.50	50.00		11.115	11.411	7.318	6.606	7.374
Firestone East Africa Ltd Ord 5 00	278,342,400	1.05	1.40	2.20	2.41	2.48	11.68	16.00	16.10	15.91	18.27	-0.756	-1.754	-1.292	8.677	58.284	21.890
Kenya National Mills Ltd. Ord 5 00	67,235,665	-9.26	-5.42	-13.16	2.58	0.46	7.00	9.50	17.00	22.35	27.00	3.369	2.310	2.324	2.620	3.783	2.909
Kenya Oil Co Ltd Ord 5 00	7,199,800	21.61	29.32	23.67	18.89	13.22	72.81	67.75	55.00	49.50	50.00	-1.900	5.618	6.756	5.925	2.219	4.967
Kenya Power & Lighting Ltd Ord 20 00	79,128,000	-20.35	16.47	18.48	19.62	14.08	38.67	92.53	124.85	116.22	31.25	14.915	4.904	8.547	22.651	21.034	17.410
Total Kenya Ltd Ord 5 00	56,000,000	3.69	9.85	5.73	2.32	3.09	55.00	48.29	49.00	52.50	65.01	-0.956	-5.844	-3.396	5.834	24.721	9.053
Unga Group Ltd Ord 5 00	46,858,758	-14.57	-4.45	-13.84	3.43	1.07	13.93	26.00	47.00	20.00	26.33						



## APPENDIX II

## PRICE EARNINGS RATIO RANKINGS FOR COMPANIES QUOTED AT THE NSE

Company	Code	ClasA	ClasB	Price to Earnings Ratio					1998/96									
				2000	1999	1998	1997	1996	P/RatioAv	AvrRnk	AvrRnkC	98Rnk	98RnkC	97Rnk	97RnkC	96Rnk	96RnkC	AvRnkC
Express Ltd Ord 5.00	EXPRES	C	2	-14.385	-6.772	10.322	16.015	12.172	12.836	17	2	10	1	10	1	15	1	1
Sasini Tea & Coffee Ltd Ord 5.00	SASINI	A	1	11.711	65.459	21.811	23.945	23.518	23.092	2	1	6	1	3	1	9	1	1
Total Kenya Ltd Ord 5.00	TOTAL	I	4	14.915	4.904	8.547	22.651	21.034	17.410	10	1	14	1	5	1	10	1	1
Bamburi Cement Ltd Ord 5.00	BAMB	I	4	42.385	15.123	23.003	16.537	9.227	16.256	13	1	5	1	9	1	20	2	1
Dunlop Kenya Ord 5.00	DUNLOP	I	4		12.982	33.074	22.959	6.678	20.904	6	1	3	1	4	1	29	2	1
I.C.D.C Investments Co Ltd Ord 5.00	ICDC	F	3	5.255	5.221	10.199	11.509	7.374	9.694	21	2	11	1	14	1	26	2	1
Kakuzi Ord 5.00	KAKUZI	A	1	-38.128	46.457	20.622	9.300	13.448	14.457	14	1	7	1	21	2	13	1	1
Kapchorua Tea Co. Ltd Ord 5.00	KAPCHO	A	1	39.470	24.864	5.351	14.510	50.928	23.596	1	1	32	2	11	1	3	1	1
A. Baumann & Co. Ltd Ord 5.00	ABAUM	C	2	8.485	4.510	19.127	-10.234	31.138	13.344	16	2	8	1	46	3	5	1	2
Athi River Mining Ord 5.00	ARM	I	4		22.026	36.353	19.467	0.000	18.607	9	1	2	1	8	1	44	3	2
B.O.C Kenya Ltd Ord 5.00	BOC	I	4	12.348	8.670	9.114	9.375	10.527	9.672	22	2	13	1	19	2	18	2	2
Brooke Bond Ltd Ord 10.00	BBOND	A	1	10.586	23.765	30.214	-22.746	49.650	19.039	8	1	4	1	47	3	4	1	2
Diamond Trust Bank Kenya Ltd Ord 4.00	DTK	F	3			8.467	11.097	-27.808	17.182	11	1	37	3	6	1	6	1	2
E.A. Portland Cement Ltd Ord 5.00	EAPORT	I	4	-2.510	-1.149	4.204	19.890	27.451	17.182	11	1	37	3	6	1	6	1	2
Eaagads Ltd Ord 1.25	EAGAAD	A	1	-15.449	22.819	5.695	10.616	18.130	11.480	18	2	31	2	16	2	11	1	2
East African Breweries Ltd Ord 10.00	EABL	I	4	6.534	7.033	40.069	6.027	12.950	19.682	7	1	1	1	33	3	14	1	2
George Williamson Kenya Ltd Ord 5.00	GWK	A	1	10.856	13.745	4.435	13.078	51.564	23.026	3	1	36	3	12	1	2	1	2
Limuru Tea Co. Ltd Ord 20.00	LIMTEA	A	1	10.995	13.978	7.225	9.000	24.520	13.581	15	1	23	2	22	2	8	1	2
Pan Africa Insurance Ltd Ord 5.00	PANAFR	F	3		8.771	5.801	10.363	15.441	10.535	19	2	30	2	18	2	12	1	2
Carbacid Investments Ltd Ord 5.00	CARB	I	4	4.094	4.855	6.080	7.985	11.258	8.441	26	2	28	2	27	2	16	2	2
Crown Berger Ltd Ord 5.00	CBERG	I	4		10.542	3.907	40.268	6.629	16.935	12	1	38	3	2	1	30	2	2
E.A. Cables Ltd Ord 5.00	EACABL	I	4	6.163	14.783	6.359	9.309	8.577	8.082	27	2	26	2	20	2	21	2	2
E.A. Packaging Ltd Ord 5.00	EAPACK	I	4	-0.578	-3.620	-3.170	58.245	10.792	21.956	4	1	44	3	1	1	17	2	2
Firestone East Africa Ltd Ord 5.00	FIREST	I	4	11.115	11.411	7.318	6.606	7.374	7.099	30	2	22	2	31	2	27	2	2
Jubilee Insurance Co. Ltd Ord 5.00	JUB	F	3		7.759	7.802	7.833	10.295	8.643	25	2	20	2	28	2	19	2	2
Kenya National Mills Ltd. Ord. 5.00	KNM	I	4	-0.756	-1.754	-1.292	8.677	58.284	21.890	5	1	43	3	24	2	1	1	2
Marshall's (E.A.) Ltd Ord 5.00	MARSH	C	2	-2.568	-1.611	9.831	7.798	2.813	6.814	31	2	12	1	29	2	40	3	2
Nation Media Group Ord. 5.00	NMG	C	2	12.274	14.324	15.040	8.214	6.280	9.845	20	2	9	1	26	2	33	3	2
National Industrial Credit Ltd Ord 5.00	NIC	F	3	4.680	7.380	7.953	8.271	7.661	7.962	28	2	19	2	25	2	24	2	2
Rea Vipingo Plantations Ltd Ord 5.00	REAVIP	A	1	-5.351	-43.617	8.153	8.819	6.466	7.812	29	2	18	2	23	2	32	2	2
Standard Chartered Bank Ltd Ord 5.00	SCBK	F	3	5.494	5.297	5.947	7.245	6.880	6.691	33	3	29	2	30	2	28	2	2
Tourism Promotion Services Ltd Ord 5.00 (Sere)	SERENA	C	2	7.356	7.826	8.451	11.950	0.000	6.800	32	2	16	2	13	1	45	3	2
Uchumi Supermarket Ltd Ord 5.00	UCHUMI	C	2	9.182	9.645	8.439	10.402	8.239	9.027	24	2	17	2	17	2	22	2	2
Housing Finance Co Ltd Ord 5.00	HFCK	F	3	12.289	16.679	6.460	5.929	6.617	6.335	34	3	25	2	34	3	31	2	2
Standard Newspapers Group Ord 5.00	SNG	C	2		-1.057	100.989	10.061	5.915	25.104	47	3	47	3	7	1	34	3	2
Unga Group Ltd Ord 5.00	UNGA	I	4	-0.956	-5.844	-3.396	5.834	2.058	9.058	23	2	45	3	36	3	7	1	2
Barclays Bank Ltd Ord 10.00	BBK	F	3	6.745	6.773	6.235	5.210	4.920	5.455	37	3	27	2	40	3	36	3	3
British American Tobacco Kenya Ltd Ord 10.00	BATA	I	4	10.383	4.606	4.960	5.804	7.486	6.083	36	3	35	3	38	3	25	2	3
C.F.C Bank Ltd Ord 5.00	CFC	F	3	4.278	5.556	5.217	5.457	8.079	6.251	35	3	33	3	39	3	23	2	3
Kenya Commercial Bank Ltd Ord 10.00	KCB	F	3	-5.968	-2.268	7.553	3.364	3.232	4.716	40	3	21	2	43	3	39	3	3
Kenya Power & Lighting Ltd Ord 20.00	KPL	I	4	-1.900	5.618	6.756	5.925	2.219	4.967	38	3	24	2	35	3	42	3	3
National Bank of Kenya Ltd Ord 5.00	NBK	F	3	-0.286	-0.414	-0.609	6.468	5.334	3.731	41	3	42	3	32	2	35	3	3
Car & General (K) Ltd Ord 5.00	CARGEN	C	2	-51.970	11.292	-7.901	-2.961	-4.182	-5.015	46	3	46	3	45	3	46	3	3
City Trust Ltd Ord 5.00	CTRUST	F	3	10.378	11.044	3.221	5.829	1.501	3.517	42	3	39	3	37	3	43	3	3
CMC Holdings Ltd Ord 5.00	CMC	C	2	3.044	4.344	5.164	5.027	3.991	4.727	39	3	34	3	41	3	37	3	3
Kenya Airways Ltd Ord 5.00	KENAIR	C	2	1.420	2.993	2.844	4.029	2.756	3.209	43	3	40	3	42	3	41	3	3
Kenya Oil Co Ltd Ord 5.00	KENOL	I	4	3.369	2.310	2.324	2.620	3.783	2.909	44	3	41	3	44	3	38	3	3

APPENDIX IV

WEEKLY RETURNS OF SHARES FOR THE PERIOD 1999 - 2001

WeekEnd	Series	BBK	CarGen	BAMB	BAT	Total	SMG	SASINI	NBK	KAPCHO	KENOL	KENAIR	KCB	KAKUZI	ICDC	EXPRESS	CTRUST	CMC	CFC	KPLC	Rmarket
29-Mar-96	1	-0.35	-3.64	-1.42	-0.24	-0.47	0.00	0.02	-0.77	0.00	-4.45		5.27	-4.87	0.40	0.61	-4.59	0.22	-2.01	-2.75	-0.73
5-Apr-96	2	1.60	2.50	0.12	0.24	-1.99	0.00	1.51	-11.71	0.00	-2.11		-11.01	-1.18	0.22	-1.72	0.00	0.00	-10.69	0.07	-0.61
12-Apr-96	3	6.72	0.00	11.98	1.51	-0.89	-0.06	14.74	5.04	0.00	2.89		9.30	2.98	1.26	-0.02	0.00	-0.98	0.61	1.47	2.58
19-Apr-96	4	-2.24	0.00	7.38	-0.08	0.81	-9.13	9.79	3.97	0.00	0.00		1.18	0.00	-3.14	0.27	0.00	0.04	13.82	-1.78	0.51
26-Apr-96	5	-1.12	-2.44	-4.68	-0.43	6.34	-2.28	-1.71	-0.19	0.00	-0.71		0.07	3.68	5.02	-0.13	0.00	-6.48	-2.26	-4.40	-0.31
3-May-96	6	0.46	4.72	-1.67	0.02	1.30	-6.62	-1.23	-5.29	0.00	-0.91		2.40	6.38	8.44	2.57	0.00	2.75	1.23	6.31	1.32
10-May-96	7	-1.24	0.00	0.37	0.02	7.81	-0.76	1.69	-3.33	0.00	0.00		-3.18	-0.43	-4.26	0.32	0.00	-0.55	-4.31	-2.22	-0.42
17-May-96	8	-0.14	0.00	7.94	0.33	-1.69	0.82	-1.12	0.25	0.00	0.00		-4.26	1.93	1.83	6.60	0.00	-0.11	-5.08	2.77	0.44
24-May-96	9	0.91	-4.51	0.05	1.30	-2.80	-0.03	-3.28	0.96	0.00	0.00		-8.64	0.46	1.63	0.13	0.00	-0.63	-5.28	2.67	-0.56
31-May-96	10	-0.46	5.00	1.77	-1.01	-3.96	-1.89	-3.47	1.29	0.00	0.00	1.63	6.10	2.80	-6.58	-0.85	17.29	0.57	0.92	0.69	2.07
7-Jun-96	11	-1.04	0.00	0.29	3.82	-5.86	4.26	-3.08	0.36	0.00	0.00	-5.54	2.37	0.45	0.87	0.00	-8.18	0.07	7.75	1.48	0.58
14-Jun-96	12	-1.83	1.22	2.74	-1.88	1.17	0.16	-0.59	5.13	0.00	0.00	-4.79	-0.47	2.17	3.35	2.58	0.00	0.59	-4.08	6.15	0.85
21-Jun-96	13	-1.00	-1.20	-2.71	-0.38	0.78	2.39	-0.06	-7.25	0.00	0.00	-0.58	-0.06	-1.79	-0.69	5.59	11.96	-0.58	1.80	5.27	0.08
28-Jun-96	14	0.68	0.00	-0.62	0.29	-1.43	0.00	3.62	-1.26	0.00	0.00	-4.53	0.46	-10.62	0.23	6.54	2.08	0.80	-5.10	3.74	0.43
5-Jul-96	15	-1.28	0.00	-2.08	0.00	-0.79	0.58	-0.59	-1.95	0.00	0.00	3.46	-1.38	0.00	1.22	0.99	0.00	2.44	3.01	0.50	-0.08
12-Jul-96	16	0.47	0.00	-0.25	0.04	-1.19	-4.99	0.00	-1.94	0.00	0.00	-2.56	0.27	-0.09	-0.07	-0.14	0.00	-2.57	-4.02	4.06	-0.06
19-Jul-96	17	-1.41	10.74	-3.76	0.46	-2.13	0.24	0.00	11.57	0.00	0.00	-3.06	5.73	0.00	-0.07	-1.89	0.00	6.39	4.51	0.89	0.75
26-Jul-96	18	2.30	0.00	0.36	0.13	-2.50	-0.42	-11.95	4.26	0.00	0.00	-5.19	2.04	0.89	0.04	-3.05	3.13	0.28	1.05	-0.46	-0.98
2-Aug-96	19	0.03	-6.59	0.97	-0.68	-0.16	-3.37	4.79	-5.97	4.62	0.00	-4.93	-5.64	0.03	-0.27	-3.62	-3.03	1.84	-4.31	-1.66	-0.33
9-Aug-96	20	-2.47	0.00	-1.07	-1.58	-3.66	-6.55	-0.37	6.37	0.00	0.00	-1.14	-2.20	-0.37	0.09	0.69	0.00	-6.94	-10.04	-0.71	-1.67
16-Aug-96	21	0.52	0.00	0.15	-1.25	-1.05	0.00	-2.28	-2.39	0.00	0.00	3.01	0.07	2.22	-3.29	-1.23	-3.13	-1.27	-1.18	3.10	-0.82
23-Aug-96	22	-0.62	-2.15	2.46	0.96	-0.33	-0.33	1.40	0.67	0.00	0.00	2.55	-3.22	-5.95	-2.72	0.29	0.00	0.26	-0.55	1.87	-0.59
30-Aug-96	23	-5.17	-1.20	0.05	-2.36	-3.41	0.00	-1.46	0.70	0.00	0.00	2.85	-0.76	9.20	0.93	-1.35	0.00	0.07	0.95	4.33	-0.13
6-Sep-96	24	-5.38	2.06	0.15	2.71	-2.33	0.00	-0.28	-9.04	0.00	0.00	-4.91	-1.61	1.02	-1.34	0.55	0.00	2.94	-0.47	8.26	0.13
13-Sep-96	25	3.86	-6.69	-7.34	-3.74	1.62	-11.14	2.70	-3.92	0.00	0.00	-1.83	-2.70	-0.37	3.05	-1.64	0.00	-2.38	-0.30	2.51	-0.23
20-Sep-96	26	-2.42	0.00	4.04	-5.07	-2.23	0.00	-0.02	-0.64	0.00	0.00	-1.83	-2.70	-0.37	3.05	-1.64	0.00	2.44	-1.46	-4.88	-0.61
27-Sep-96	27	-2.33	10.50	0.93	-2.85	0.54	-6.22	-3.97	-0.78	0.00	0.00	-0.11	8.23	-0.64	1.68	0.00	0.00	2.44	-1.46	-4.88	-0.61
4-Oct-96	28	0.69	-0.45	-0.72	1.46	-1.12	-7.89	3.92	-1.73	0.00	0.00	-2.69	2.47	0.53	7.61	1.83	2.46	0.02	0.43	8.43	0.63
11-Oct-96	29	0.15	1.01	-0.21	-0.56	-0.65	-4.69	2.00	-2.64	0.00	0.00	-1.37	-5.22	0.00	2.55	5.50	1.70	0.64	1.43	-3.83	-0.11
18-Oct-96	30	-1.94	0.30	-2.59	0.37	0.03	44.00	1.73	-4.05	0.00	0.00	-2.62	0.92	0.52	3.78	3.70	0.00	1.53	-1.72	1.67	1.62
25-Oct-96	31	-1.14	0.00	1.44	0.04	-0.64	-15.65	-1.57	3.52	0.00	0.00	2.22	1.29	0.42	-2.75	3.24	0.00	0.95	0.77	4.91	0.14
1-Nov-96	32	0.25	0.00	-2.15	1.14	-1.33	0.22	1.99	-2.23	0.00	0.00	0.89	-0.31	0.89	-6.78	2.75	0.00	-0.57	0.17	2.29	-0.95
8-Nov-96	33	0.47	0.00	0.80	-0.49	-8.93	-0.19	3.93	-0.09	0.00	0.00	-5.43	2.34	-0.59	5.86	2.02	-11.75	-5.35	-0.11	2.34	0.04
15-Nov-96	34	0.02	-0.30	0.05	0.53	0.74	0.25	1.93	-4.15	0.00	0.00	-1.84	4.45	0.59	0.57	-1.80	-0.32	6.17	0.28	3.54	0.90
22-Nov-96	35	0.37	0.00	-0.85	-0.85	0.32	0.14	2.28	-6.19	0.00	0.00	-0.80	7.27	0.05	-0.63	-2.74	0.91	0.07	-0.84	-0.15	-0.45
29-Nov-96	36	0.70	0.00	3.64	0.66	0.79	0.00	2.51	4.20	2.94	0.00	-13.93	19.43	0.40	1.09	-3.95	-6.31	-0.17	1.83	3.53	-0.33
6-Dec-96	37	-0.06	0.00	1.81	-0.06	1.76	-0.38	1.71	-0.56	0.00	0.00	1.40	4.81	1.21	-9.79	-2.86	-0.02	0.15	-0.10	-0.70	-0.06
13-Dec-96	38	0.78	0.00	-0.15	0.40	0.73	0.00	-1.06	0.12	0.00	0.00	9.77	-8.36	-1.38	10.99	0.00	0.02	0.54	-1.49	0.01	0.12
20-Dec-96	39	0.38	0.00	-0.86	0.00	0.41	0.00	-2.67	-0.98	0.00	0.00	0.44	-2.02	0.00	-0.62	0.00	0.00	-0.98	1.60	0.44	-0.07
27-Dec-96	40	1.81	0.00	3.33	0.02	2.11	4.75	9.85	2.79	0.00	-24.47	0.57	8.07	0.00	1.64	0.48	0.00	0.48	-2.38	17.17	0.97
3-Jan-97	41	5.58	0.00	8.83	3.94	2.12	-0.70	-0.97	21.16	0.00	7.95	9.46	6.78	0.00	3.33	-0.37	2.88	-1.26	2.68	1.57	2.09
10-Jan-97	42	13.43	0.00	35.16	20.24	35.00	2.19	10.54	-2.51	0.00	21.73	11.37	2.07	0.51	19.27	0.45	8.41	5.50	37.93	95.62	9.65
17-Jan-97	43	-4.45	0.00	-2.67	5.54	7.05	2.90	5.93	-1.52	0.00	7.30	-4.04	4.73	2.02	2.81	0.30	13.56	3.78	1.89	-16.51	1.52
24-Jan-97	44	-1.23	0.00	-7.11	-0.13	-5.47	3.19	-12.75	-0.40	0.00	-2.22	-13.74	-0.45	-0.49	-11.85	-11.36	0.20	-0.38	-15.82	-3.66	-1.43
31-Jan-97	45	0.51	5.00	-0.04	-3.61	-9.77	12.63	10.83	-3.06	0.00	0.40	-0.10	1.27	0.45	-4.41	0.00	2.24	0.00	1.97	21.44	0.75
7-Feb-97	46	3.07	-3.10	6.42	-5.45	-4.99	-1.40	0.51	2.53	0.00	-2.78	2.66	1.56	0.06	-2.76	-8.18	2.51	-3.74	0.27	23.35	0.75
14-Feb-97	47	1.11	-1.72	30.80	-17.87	-1.94	37.40	0.00	0.33	0.00	-0.27	1.60	3.39	0.97	16.20	7.96	4.08	6.65	1.47	-6.21	2.18
21-Feb-97	48	-5.03	0.00	-5.95	-1.46	-1.94	5.61	2.12	-0.14	0.00	0.00	-3.96	4.21	0.56	5.34	10.34	0.00	12.79	-1.24	-0.91	0.70

28-Feb-97	49	-2.19	0.00	7.53	3.27	-2.87	-1.97	-0.05	0.21	0.00	-1.65	2.75	5.20	1.24	0.15	-1.35	-2.78	-0.91	-0.97	0.03	-0.57
7-Mar-97	50	0.43	0.00	-1.35	-0.30	-17.60	-0.58	7.06	-0.11	0.00	0.00	-2.90	-7.63	-2.15	3.86	3.65	0.00	-0.22	1.12	-1.05	-0.73
14-Mar-97	51	-0.74	0.00	9.44	0.00	0.27	-1.21	-5.09	0.22	0.00	-0.96	1.82	0.05	0.39	5.35	-1.25	-4.86	4.97	-0.52	-1.36	-0.56
21-Mar-97	52	-8.70	0.00	1.42	-1.40	3.53	-0.05	-0.23	-0.22	0.00	0.37	-4.61	-0.75	0.00	-6.53	-2.31	-0.15	-2.74	-5.72	-2.24	-0.99
28-Mar-97	53	-0.75	0.00	-5.55	-0.43	1.95	0.30	2.28	0.08	0.00	-2.49	-2.52	1.46	0.70	6.54	-2.22	0.75	0.49	-10.41	4.29	-0.12
4-Apr-97	54	-0.63	2.45	1.97	-0.43	-1.27	0.02	-1.49	-0.06	0.00	0.00	0.51	0.14	-0.67	-10.22	-0.22	0.67	-0.65	-8.02	0.57	-0.26
11-Apr-97	55	0.77	-2.39	0.53	-0.48	-0.65	-13.10	3.94	-0.25	0.00	0.00	-0.95	-2.00	0.00	-1.76	0.00	1.52	-14.18	4.17	0.05	-1.37
18-Apr-97	56	2.97	0.00	0.48	-0.02	0.36	1.16	-3.05	0.04	0.00	0.00	1.92	-7.42	0.00	-2.99	-3.50	-0.68	-0.33	2.04	1.88	0.06
25-Apr-97	57	6.12	0.00	1.97	-0.74	1.23	6.63	-0.67	-0.17	0.00	0.00	8.07	2.40	0.56	-2.43	-3.74	0.00	-0.59	2.52	-0.02	-0.02
2-May-97	58	5.12	-15.00	1.66	0.92	1.02	6.30	4.85	0.09	0.00	0.00	-0.59	4.56	-0.34	4.94	-5.17	0.00	2.47	-2.32	5.15	1.08
9-May-97	59	-0.04	0.00	-3.70	-0.87	1.19	0.30	-4.38	-0.40	0.00	-7.21	-0.64	1.01	0.71	1.27	1.57	3.42	2.25	1.79	4.71	1.22
16-May-97	60	-2.56	-5.29	-0.52	2.37	6.10	2.64	0.32	0.83	0.00	-2.08	-5.34	0.61	0.32	4.46	3.83	-0.46	0.40	8.80	14.56	1.54
23-May-97	61	0.88	0.00	-0.98	1.09	0.58	0.00	0.16	-3.50	0.00	-5.72	-2.93	0.99	1.51	2.35	0.92	0.00	-0.62	-5.08	10.55	0.06
30-May-97	62	-0.80	2.48	0.15	0.17	-0.34	55.12	2.28	1.73	0.00	7.58	2.02	3.02	-8.49	1.42	-0.93	1.43	-0.07	0.05	-0.84	1.11
6-Jun-97	63	0.13	0.00	-0.18	-3.15	-6.19	5.63	0.69	0.79	0.00	1.72	11.41	4.18	12.05	7.61	-4.81	-0.70	9.67	3.55	-1.37	1.79
13-Jun-97	64	0.00	2.24	1.09	2.14	-3.43	7.00	3.91	-1.91	0.00	-13.04	-9.49	12.30	-1.13	-1.84	0.00	0.07	1.12	1.57	3.10	1.16
20-Jun-97	65	-0.59	0.77	0.03	-1.50	1.06	7.33	0.21	2.51	0.00	14.16	12.80	5.88	0.65	1.16	0.31	4.19	3.58	4.09	-1.59	1.84
27-Jun-97	66	-0.61	-0.18	-0.23	0.00	-0.32	-7.49	3.73	-0.08	0.00	-7.42	-6.61	-0.39	-5.60	11.31	0.05	0.00	12.31	6.43	1.42	-0.30
4-Jul-97	67	-0.23	-5.72	3.64	-0.56	0.46	19.79	-6.15	0.33	0.00	-1.17	-7.49	-14.05	5.00	17.90	-1.51	-1.21	0.31	-1.57	2.53	-0.17
11-Jul-97	68	-0.42	0.00	-2.98	0.28	0.91	0.65	2.39	0.51	0.00	0.00	-4.23	-2.45	1.32	-1.30	-0.34	-1.11	-2.01	-3.01	-2.65	-0.35
18-Jul-97	69	-3.42	1.56	0.42	-1.91	-1.10	9.96	0.63	0.20	0.00	0.00	14.07	2.05	-0.36	-10.40	-1.04	-2.09	0.00	2.36	0.21	-0.14
25-Jul-97	70	-0.95	0.00	1.67	0.95	-0.97	-1.39	-0.54	-0.01	0.00	6.17	-7.69	-4.77	0.00	4.83	-0.22	0.00	-2.17	-1.76	-0.81	2.44
1-Aug-97	71	0.77	-1.54	-3.01	-1.89	-5.21	2.21	-1.76	-1.04	0.00	-7.77	-2.89	-4.20	2.60	12.38	-2.66	-3.28	-1.62	-0.89	-6.34	-0.85
8-Aug-97	72	2.59	0.00	6.05	-1.37	1.43	2.81	1.19	-14.52	0.00	6.00	3.04	1.08	5.75	1.00	-2.58	0.00	-4.00	-2.11	-0.51	-0.15
15-Aug-97	73	-2.14	0.00	1.71	-2.47	-1.36	17.00	6.60	1.33	0.00	0.00	-2.16	1.90	7.44	0.32	0.00	0.00	-0.80	-8.05	2.20	0.35
22-Aug-97	74	-0.13	-0.56	5.42	-2.30	-2.09	5.11	4.82	0.12	0.00	-3.17	18.26	0.03	3.33	-4.23	-0.37	2.94	-3.55	1.03	2.66	-0.45
29-Aug-97	75	-2.13	0.00	-0.07	-1.57	-1.07	14.83	3.04	-0.61	0.00	0.00	-18.74	1.18	4.77	-0.41	1.95	-5.71	-1.62	-0.04	-0.19	0.69
5-Sep-97	76	0.98	0.00	-0.04	-2.06	2.63	17.26	5.85	-0.46	0.00	-3.97	0.78	-0.35	20.87	-2.31	-9.46	4.05	-2.89	-0.93	-0.44	0.91
12-Sep-97	77	0.60	0.57	-6.48	-1.66	-2.46	0.00	0.68	-0.65	0.00	0.00	10.45	-0.25	1.79	-4.82	-3.26	-0.98	3.18	0.24	-1.09	-0.30
19-Sep-97	78	0.34	0.00	-2.68	-1.31	-1.46	-7.75	-1.93	-2.42	0.00	-2.31	0.78	-0.11	-5.97	-5.31	0.00	0.00	0.01	-0.28	2.14	-0.63
26-Sep-97	79	0.08	0.00	-0.85	-4.38	-0.79	-4.69	1.83	-0.90	0.00	1.52	2.43	-7.09	-3.88	-12.65	1.65	0.00	-8.52	0.00	8.85	0.32
3-Oct-97	80	0.83	0.00	-12.57	-0.16	-3.20	3.08	-4.78	-0.23	0.00	-7.50	-14.87	-1.83	0.00	22.94	0.00	0.22	-1.44	-0.95	11.09	-0.92
10-Oct-97	81	1.86	0.31	-12.12	1.47	-0.85	-4.12	-0.09	-2.62	0.00	-2.65	-0.73	-11.32	-2.52	-6.94	0.00	-0.22	0.78	0.96	0.43	-1.08
17-Oct-97	82	-0.21	0.00	-1.18	1.37	-2.18	-1.12	-1.88	-4.45	0.00	-6.06	-3.58	4.19	0.00	-7.88	2.54	0.00	-4.74	0.00	-7.56	-1.73
24-Oct-97	83	-0.88	-0.56	19.14	-0.03	-4.11	-3.97	0.07	0.01	0.00	1.13	-1.04	4.98	0.00	-5.04	-3.17	1.47	-3.74	-4.65	-0.81	-0.47
31-Oct-97	84	-0.54	0.25	-1.63	0.54	0.15	-5.91	-2.71	-0.03	0.00	0.00	0.03	3.02	-4.14	0.42	-1.00	0.00	0.77	-2.82	-4.51	0.68
7-Nov-97	85	-1.37	0.06	-9.70	0.88	0.37	-9.00	3.53	0.23	0.00	-6.90	-0.84	-11.35	0.00	-5.98	2.30	-2.17	4.00	-0.08	-11.64	-2.08
14-Nov-97	86	-4.09	0.37	-4.71	-0.92	-1.20	-6.60	-1.80	-0.89	0.00	0.67	-0.82	-7.32	-30.36	-1.08	0.00	0.00	0.00	-0.09	-9.94	-1.36
21-Nov-97	87	5.07	0.50	-2.63	-3.22	-0.50	1.34	-3.53	0.20	0.00	0.81	1.13	0.97	-4.82	0.65	0.00	0.00	0.42	0.00	10.75	-1.06
28-Nov-97	88	4.51	-0.93	14.95	-0.08	1.47	-7.90	-1.10	0.89	0.00	2.06	0.55	-1.45	2.02	2.38	0.00	0.00	3.85	-3.61	3.96	0.03
5-Dec-97	89	2.53	0.63	0.46	0.11	0.95	25.95	6.88	0.55	0.00	-5.05	1.70	2.55	-1.82	0.63	-0.56	0.74	3.40	-1.13	-2.85	0.58
12-Dec-97	90	-0.85	0.00	-2.80	-0.08	0.25	17.48	-0.04	2.32	0.00	2.64	0.80	2.74	0.00	2.57	0.00	0.00	3.22	-0.01	8.15	1.00
19-Dec-97	91	1.28	0.00	0.00	0.03	0.00	0.86	0.00	-0.36	0.00	0.00	3.00	1.64	4.02	1.40	0.00	0.00	0.00	0.00	0.00	0.15
26-Dec-97	92	-1.20	0.00	4.47	-1.87	0.71	0.00	0.00	0.56	0.00	2.61	-1.33	-2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80
2-Jan-98	93	2.26	0.00	4.08	1.90	0.00	-8.45	-1.63	0.51	0.00	0.00	-0.27	2.75	0.00	1.98	1.69	0.00	0.00	-1.13	4.31	0.80
9-Jan-98	94	3.34	12.42	19.19	0.00	3.88	21.69	1.62	2.94	0.00	0.00	16.59	13.46	0.00	13.88	-5.63	0.00	0.55	4.42	7.36	5.48
16-Jan-98	95	0.73	11.88	-0.84	0.03	16.67	-2.42	0.50	12.39	0.00	0.00	4.68	-1.03	0.00	13.04	0.00	0.74	15.07	11.11	0.86	3.02
23-Jan-98	96	-3.08	0.00	-4.76	0.03	9.44	-9.65	0.43	-4.97	0.00	21.21	-1.84	-4.26	14.58	6.49	28.05	0.00	26.60	-1.54	-2.05	2.27
30-Jan-98	97	-1.55	0.00	-3.94	1.33	-8.86	5.27	-2.41	-10.12	0.00	6.78	-15.31	-3.21	0.91	1.24	0.00	117.52	2.79	0.00	-3.35	1.19
6-Feb-98	98	4.45	4.94	0.00	-1.13	-5.73	-1.19	-2.30	2.62	0.00	1.45	2.22	-0.78	0.00	2.13	-25.52	-54.03	-3.69	0.61	4.09	-1.47
13-Feb-98	99	2.13	-9.04	-0.10	0.51	-1.48	-7.91	9.27	-1.06	0.00	3.05	3.85	-0.43	2.70	-0.82	0.93	3.77	-0.40	-0.58	2.05	-0.07
20-Feb-98	100	5.30	-0.31	-19.82	-0.37	1.80	0.94	23.09	-0.60	7.86	0.17	-3.44	-0.88	12.21	-8.98	0.26	-1.40	-10.23	1.97	0.10	0.49



27-Feb-98	101	-1.61	3.79	12.30	0.13	-0.27	-3.49	-0.90	1.46	0.00	0.27	-0.92	0.63	0.84	-7.52	0.65	-0.85	-3.02	-1.22	0.47	-0.09
6-Mar-98	102	0.80	0.00	7.39	-0.50	-4.44	-3.40	-13.97	0.90	0.00	-1.16	-1.59	-4.55	-10.85	-3.40	0.00	-2.15	-6.55	0.42	-0.57	-1.23
13-Mar-98	103	-7.55	0.00	3.49	-9.44	-5.56	-1.45	-4.10	-1.07	0.00	0.79	-1.27	-4.40	11.93	0.56	-4.32	0.74	-0.84	-0.09	-0.09	2.33
20-Mar-98	104	-1.33	-34.10	0.03	-0.85	-3.37	1.36	37.17	-13.65	0.00	-0.90	-3.91	-6.99	3.99	-2.69	-4.63	-7.24	-0.86	-5.16	-4.91	-1.63
27-Mar-98	105	-1.90	0.00	-0.15	0.06	-3.35	27.31	-1.52	-5.62	0.00	0.00	11.93	-0.05	-2.71	-9.09	0.19	10.17	-1.00	10.21	-3.12	-0.04
3-Apr-98	106	-0.22	0.00	-13.02	-0.71	-5.83	-15.42	-10.99	-1.57	0.00	-17.02	-10.18	2.04	-0.17	-1.59	0.00	0.00	-0.79	0.00	-4.60	-1.50
10-Apr-98	107	-2.24	0.00	-7.89	0.03	-3.63	-33.91	-5.92	0.85	0.00	0.87	-0.27	3.66	0.00	-0.28	0.00	0.00	0.00	-3.23	-2.93	-1.42
17-Apr-98	108	-2.34	-24.13	-0.41	-1.05	0.45	0.00	-2.42	0.65	0.00	-1.08	9.82	-3.43	0.00	0.85	0.00	0.00	-14.02	-13.62	-1.25	-1.82
24-Apr-98	109	0.29	30.00	4.46	0.30	-3.33	0.00	-4.14	-1.93	0.00	0.00	-9.95	-0.31	-7.69	-0.49	-9.02	0.00	-7.36	-3.96	0.46	-1.38
1-May-98	110	-1.27	4.23	-7.54	-0.57	-2.61	-0.95	2.09	-1.24	0.00	0.00	-0.65	-0.02	0.00	2.22	-4.92	0.00	-0.56	-11.21	-0.27	-0.48
8-May-98	111	0.08	-0.37	1.92	0.00	-1.73	0.00	-1.25	4.47	0.00	-3.64	12.55	-0.32	0.00	0.69	-8.05	0.00	-0.17	0.23	3.20	-0.50
15-May-98	112	2.44	-2.15	4.91	2.06	-4.30	-10.08	0.42	3.81	0.00	0.00	-11.50	-8.30	1.67	2.08	-3.13	-2.86	0.13	9.51	2.18	-0.48
22-May-98	113	5.89	-9.16	0.43	0.03	0.47	0.00	5.19	-7.31	0.00	-1.22	-0.06	5.81	-1.64	18.33	0.00	-3.68	-0.36	9.21	0.74	1.88
29-May-98	114	6.42	-2.08	5.99	-0.06	-1.82	-14.12	1.69	0.21	0.00	0.00	0.67	4.73	0.00	-12.62	-7.10	0.00	-0.01	-3.86	2.16	0.13
5-Jun-98	115	2.01	-1.02	-0.06	0.00	1.99	10.65	3.91	0.76	0.00	4.07	-2.98	1.27	8.33	5.00	-0.41	0.00	0.33	-1.40	4.41	1.78
12-Jun-98	116	-2.24	-3.27	0.49	0.03	0.03	10.99	-2.57	-0.82	0.00	0.95	2.08	-4.58	5.02	-3.60	-3.22	0.00	-0.12	-0.60	1.63	2.16
19-Jun-98	117	-3.73	-1.78	-0.43	-0.45	0.38	-3.48	-0.58	9.96	0.00	0.00	1.05	0.68	-12.10	2.66	-5.66	-3.56	0.17	0.60	-0.37	-0.84
26-Jun-98	118	1.34	0.72	0.29	0.48	0.58	0.00	-1.87	15.56	0.00	2.02	-0.11	1.47	18.20	-1.36	-8.36	0.00	0.08	-0.93	1.52	-0.63
3-Jul-98	119	-0.12	8.98	-0.06	0.06	-1.22	0.00	-0.17	-21.39	0.00	0.00	10.49	-0.17	1.27	0.84	0.00	-8.18	0.55	0.89	-2.62	-0.46
10-Jul-98	120	-2.63	0.00	-2.19	-2.55	0.81	0.00	0.08	-0.35	0.00	1.58	3.16	-0.61	0.94	-2.53	0.00	-5.72	0.02	1.02	-9.24	-1.43
17-Jul-98	121	-3.02	-1.07	-0.99	2.19	-0.51	-19.85	0.38	-0.52	7.62	0.00	0.11	-0.15	0.00	0.29	-1.45	0.00	0.29	0.00	11.91	-0.97
24-Jul-98	122	-0.07	0.00	-9.79	0.36	0.91	-14.58	-0.49	-0.05	15.69	1.76	5.33	1.02	0.00	-1.17	1.47	0.00	0.14	-8.36	2.02	0.03
31-Jul-98	123	2.34	0.00	-3.75	0.03	-2.08	-2.31	2.38	-2.26	0.00	0.00	-6.39	0.70	-3.55	-0.89	0.00	0.00	-0.47	0.00	0.11	-0.69
7-Aug-98	124	1.21	0.00	-1.76	2.31	-0.11	-0.05	0.00	-8.99	0.00	0.00	-0.62	1.14	0.00	0.48	0.12	0.00	-0.47	0.00	0.11	-0.69
14-Aug-98	125	-0.30	0.00	-2.31	2.84	0.19	0.15	-2.21	0.75	0.00	-1.60	1.46	-1.10	5.35	1.08	0.71	0.00	0.46	-0.02	-0.43	-0.24
21-Aug-98	126	0.63	0.00	5.51	1.63	2.90	-1.11	-2.53	0.54	0.00	0.22	2.28	-1.11	0.45	3.69	0.66	0.00	1.26	0.00	-1.31	0.09
28-Aug-98	127	0.47	0.00	-6.56	-0.69	-1.86	0.22	2.58	0.05	0.00	1.40	-14.57	-0.33	1.37	-10.35	0.00	0.00	-0.79	0.00	-0.01	-1.51
4-Sep-98	128	-2.92	0.00	3.58	0.34	1.14	0.76	-1.29	-0.16	0.00	0.98	-1.15	0.06	-1.13	9.92	-2.96	0.00	1.67	-0.10	-0.76	0.37
11-Sep-98	129	0.18	0.00	3.70	1.48	-4.21	-1.30	2.42	-0.02	0.00	2.45	0.85	-5.23	1.07	1.63	0.00	0.00	0.00	-1.56	-0.88	-0.46
18-Sep-98	130	0.32	0.00	-6.07	2.96	-1.27	1.06	-0.80	0.78	0.00	-0.50	0.65	-2.92	1.38	-6.67	1.53	0.00	0.00	-1.50	-4.72	-1.44
25-Sep-98	131	0.60	0.00	-0.64	1.17	-3.34	-39.85	3.58	-2.36	0.00	-2.01	0.70	-2.38	-7.89	-5.84	0.00	0.00	0.03	-3.40	0.72	-1.37
2-Oct-98	132	0.56	0.25	-0.89	3.42	-2.38	-3.02	-1.23	-10.42	0.00	0.00	0.85	-5.83	0.00	-5.70	0.00	0.00	0.00	-3.40	0.72	-1.37
9-Oct-98	133	0.23	-0.25	4.11	0.23	1.44	-14.42	-2.63	-5.88	0.00	-5.98	-0.08	-0.91	0.00	2.75	4.17	0.00	-0.97	-3.14	6.25	-0.50
16-Oct-98	134	-0.67	0.00	-3.08	2.08	-0.42	1.39	0.11	4.18	0.00	0.00	0.46	0.97	-3.28	-1.90	0.00	0.00	-6.06	0.00	-1.17	-0.40
23-Oct-98	135	0.33	0.00	0.00	1.92	-4.36	47.47	-0.59	3.26	0.00	3.64	0.90	-1.55	3.25	-1.98	0.00	0.00	4.67	3.27	-0.23	0.66
30-Oct-98	136	0.61	0.00	-1.25	0.90	1.89	21.77	0.60	-0.50	0.00	-1.23	1.47	0.70	0.00	1.19	0.00	2.33	1.24	0.06	-0.41	-0.52
6-Nov-98	137	0.30	2.92	-8.10	-1.23	-4.89	13.13	-3.95	-5.21	0.00	-7.64	-0.92	1.40	-2.00	-2.88	-1.84	0.00	1.21	0.00	-0.31	2.92
13-Nov-98	138	-0.01	0.00	-1.61	1.25	0.48	-12.25	-2.83	-8.14	1.06	5.48	0.40	0.67	-0.71	-2.69	-1.84	0.00	0.27	-0.13	-0.57	0.36
20-Nov-98	139	0.50	-2.83	5.24	0.41	0.64	0.00	0.54	-10.47	0.00	0.27	-0.41	-0.52	-2.33	2.95	-4.92	0.00	0.27	-0.13	-0.57	0.36
27-Nov-98	140	2.73	0.00	-0.76	-0.34	-2.75	-0.07	-8.33	1.48	0.00	0.00	-0.10	-6.61	2.55	1.44	1.68	0.00	-2.46	0.00	-4.05	0.20
4-Dec-98	141	5.47	0.00	-0.38	6.72	0.58	-0.83	8.37	-5.02	0.00	-0.91	2.10	-5.04	0.36	0.58	-2.93	0.00	2.42	0.39	1.18	1.12
11-Dec-98	142	9.10	0.00	2.88	4.55	9.17	0.09	0.11	12.03	0.00	0.92	0.17	-0.16	1.59	2.04	0.00	0.00	0.00	0.00	2.90	1.74
18-Dec-98	143	7.75	0.00	31.99	10.77	2.33	2.17	0.00	9.77	7.37	0.00	1.30	12.67	0.79	15.02	-2.77	0.00	-8.33	3.58	2.70	3.56
25-Dec-98	144	-3.88	0.00	1.93	8.86	17.42	16.50	0.00	-0.17	0.00	0.00	0.64	0.24	0.71	0.48	0.00	0.00	0.00	0.00	3.86	0.95
1-Jan-99	145	3.32	0.00	0.00	3.11	9.24	0.00	0.00	-0.17	0.00	0.00	6.10	0.22	0.00	0.50	4.95	-11.73	10.61	3.43	5.22	4.25
8-Jan-99	146	2.17	0.00	3.72	2.75	0.48	13.40	5.22	39.63	0.00	0.00	-3.32	9.85	0.00	0.67	25.43	0.00	-4.04	12.52	10.02	4.65
15-Jan-99	147	0.78	0.00	4.20	0.61	11.72	3.32	-0.48	-2.61	0.00	0.00	4.22	-6.42	0.00	-1.67	3.77	0.00	-0.07	9.81	-6.62	-0.99
22-Jan-99	148	-6.60	0.00	-7.22	-1.06	-1.07	-0.78	0.62	-34.31	0.00	0.00	6.72	-6.08	-0.10	0.00	0.44	0.00	0.00	-9.17	-0.45	-0.12
29-Jan-99	149	-1.02	0.00	2.33	-7.38	-7.53	3.20	-4.85	11.15	0.00	6.72	-6.08	-0.10	0.00	0.44	0.00	0.00	-9.17	-0.45	-0.12	-0.12
5-Feb-99	150	6.49	0.00	-1.41	-10.21	-4.95	-2.81	-0.02	-1.22	22.55	-1.36	-10.50	-0.05	-0.41	0.24	0.00	0.00	-0.39	0.29	-0.01	-0.65
12-Feb-99	151	0.03	3.50	-7.17	-0.31	-7.10	-1.34	-4.79	2.26	0.00	1.67	6.10	2.74	0.00	0.88	0.00	0.00	-0.39	0.29	-0.01	-0.65
19-Feb-99	152	-1.64	0.64	-2.31	17.16	-6.04	1.88	-2.96	-10.98	0.00	0.00	-3.16	-0.10	0.47	-0.39	-0.59	0.00	0.02	0.00	-1.39	-0.93



26-Feb-99	153	-2.87	0.00	-8.72	7.88	0.54	-3.64	-6.98	-3.66	0.00	-8.20	-1.33	-6.18	2.78	2.53	0.00	0.00	-3.16	-8.78	0.94	-1.88
5-Mar-99	154	-2.29	0.00	0.33	5.30	24.88	0.24	-1.27	-3.93	0.00	1.79	0.11	-6.93	-2.48	2.70	-1.33	0.00	3.25	-1.09	-0.38	1.31
12-Mar-99	155	-2.02	0.00	-0.83	-0.46	-15.06	-0.76	1.09	-1.40	0.00	0.00	4.24	0.72	-0.79	0.71	-8.23	0.00	-0.47	0.00	-3.80	-1.08
19-Mar-99	156	-12.19	2.64	0.00	-5.66	-7.22	1.57	-1.15	-1.19	0.00	0.00	1.76	-6.51	1.93	1.73	-1.39	8.41	-5.76	-11.87	-2.69	-0.79
26-Mar-99	157	5.62	0.00	0.00	2.22	0.46	-56.70	-0.20	-7.24	0.00	4.11	-3.40	-7.23	0.00	-0.58	-16.23	-9.86	-0.50	-11.57	-4.32	-3.24
2-Apr-99	158	2.15	0.00	0.00	0.88	8.80	50.90	-2.40	1.40	0.00	1.11	1.34	-1.73	-15.84	-0.52	21.50	-2.45	0.00	6.33	-4.03	1.31
9-Apr-99	159	-0.86	0.00	0.00	0.40	0.45	15.50	-3.34	1.76	0.00	0.00	3.24	-5.96	9.68	0.17	-5.86	0.00	-7.14	4.00	0.21	0.78
16-Apr-99	160	0.22	0.00	0.00	2.72	0.08	9.38	0.19	-0.54	15.20	0.00	-4.88	6.46	-5.26	1.96	0.00	0.00	9.62	-0.42	6.34	0.52
23-Apr-99	161	-0.66	0.00	-1.47	10.45	0.61	-0.08	4.03	-4.41	0.00	0.00	2.33	-8.11	-4.38	1.47	2.51	-3.92	-1.16	-2.76	-0.53	-1.07
30-Apr-99	162	-3.10	0.00	-12.62	0.62	0.54	-0.52	-1.79	-5.11	0.00	0.00	3.67	-0.87	-1.57	2.59	0.00	0.00	-0.60	-5.65	0.85	-0.97
7-May-99	163	0.66	0.00	-6.78	-0.81	2.36	4.09	-1.50	-0.98	0.00	26.04	-0.15	-0.44	0.00	0.09	-14.71	3.31	0.00	-1.42	-1.65	0.01
14-May-99	164	2.09	0.00	3.28	2.23	-0.11	-8.50	0.69	-0.54	4.17	0.50	1.44	-0.42	-2.22	-0.26	-0.40	-14.92	0.00	-0.24	-0.24	-0.07
21-May-99	165	0.25	-1.25	-2.73	1.44	-3.93	0.00	-10.11	-1.09	0.00	0.00	-0.56	2.84	-2.63	0.23	-7.38	4.48	-5.38	-0.11	-4.16	1.10
28-May-99	166	-0.01	-1.34	2.56	-2.98	4.07	0.00	0.00	0.96	0.00	0.00	0.77	-2.82	7.08	-0.06	-6.35	0.00	5.69	0.00	1.92	-1.95
4-Jun-99	167	-1.30	0.00	0.89	-0.50	-1.98	-5.01	2.39	2.10	0.00	0.00	0.48	1.77	-3.33	0.09	3.78	0.00	0.00	0.00	-0.03	-0.21
11-Jun-99	168	1.10	-20.00	14.94	0.52	2.61	1.94	3.29	0.38	0.00	0.00	2.58	-1.71	3.77	0.03	0.14	1.43	1.34	6.97	-0.01	6.04
18-Jun-99	169	-0.25	0.00	-8.65	0.31	-0.44	-2.03	0.00	11.74	0.00	0.00	-2.13	-0.15	0.00	0.57	4.67	-1.41	-1.32	-3.18	0.00	0.05
25-Jun-99	170	0.76	0.00	-0.99	-0.36	0.07	-22.09	0.11	-6.41	0.00	0.00	-1.62	-0.17	0.05	0.07	-6.29	0.00	0.89	-0.56	-1.02	-0.87
2-Jul-99	171	1.85	0.30	1.77	-4.13	0.63	-5.60	0.00	-0.52	0.00	-20.86	1.96	0.59	0.00	0.18	-2.10	0.00	0.88	1.59	0.22	-0.30
9-Jul-99	172	2.23	-50.15	12.61	-6.63	3.14	0.00	0.30	-2.33	0.00	2.02	0.52	5.80	0.47	1.14	0.00	4.44	1.75	2.85	2.31	-0.27
16-Jul-99	173	3.72	0.00	-3.55	-2.40	1.03	-21.41	-0.30	-2.07	0.00	2.68	-15.07	6.63	0.00	1.72	0.00	0.00	3.10	0.34	-2.19	0.13
23-Jul-99	174	-0.81	0.00	0.66	-2.75	1.94	5.91	1.18	-8.15	0.00	4.56	0.02	-7.03	2.48	0.32	4.00	0.00	0.04	-3.79	0.43	-0.14
30-Jul-99	175	0.78	0.00	4.59	-1.89	-0.47	9.05	-1.17	1.35	0.00	6.92	-2.02	-4.75	-2.42	0.64	-1.77	0.00	0.29	-0.86	-0.63	-1.12
6-Aug-99	176	1.43	0.00	-1.29	-4.08	0.54	0.83	0.00	0.12	0.00	-2.38	-1.22	1.04	0.00	0.66	0.00	-2.13	0.00	0.02	0.65	-1.23
13-Aug-99	177	-3.31	0.00	0.37	2.69	1.28	-0.74	1.85	-6.00	0.00	-5.46	-4.02	0.93	0.00	0.62	-2.12	0.00	-0.01	0.27	-1.32	-2.16
20-Aug-99	178	-5.91	0.00	-0.40	-0.61	-0.08	0.00	0.00	-0.82	0.00	-1.54	-5.50	-13.01	0.00	-0.75	0.00	0.00	0.01	-2.82	-3.00	-1.20
27-Aug-99	179	-0.64	0.00	-2.54	1.91	2.13	-0.09	0.30	-1.63	0.00	0.00	0.62	0.78	0.00	1.42	-11.07	0.00	0.10	-4.24	-4.73	-2.46
3-Sep-99	180	-8.12	0.00	3.02	0.47	-0.01	0.00	4.23	2.26	0.00	0.00	-1.94	3.26	0.00	-1.36	3.45	-5.56	0.00	0.00	-1.23	-0.45
10-Sep-99	181	3.45	0.00	-0.10	3.29	-0.43	-7.50	0.25	0.84	0.00	0.00	-0.77	-6.29	0.00	0.71	0.00	0.00	1.57	0.00	-0.52	-1.92
17-Sep-99	182	-0.45	0.00	-6.31	1.71	-3.40	0.00	-2.26	-4.15	0.00	0.00	-1.03	-3.50	-17.36	1.79	-19.10	0.00	-1.53	7.14	-2.17	-0.38
24-Sep-99	183	-3.97	0.00	-5.41	0.73	-3.44	0.00	-1.49	-0.06	0.00	0.00	-9.84	-4.59	0.00	-2.81	-1.64	0.00	-0.11	0.33	-0.60	0.43
1-Oct-99	184	0.71	0.00	0.75	0.14	-3.43	0.00	0.00	0.16	0.00	0.00	-0.42	2.99	-0.86	-0.60	-0.48	0.00	0.00	-3.09	1.35	1.45
8-Oct-99	185	2.18	100.00	0.30	-0.55	-1.87	-0.90	2.14	-0.45	0.00	0.00	0.00	0.00	-0.89	-0.08	1.08	0.00	0.00	2.88	-1.95	-0.24
15-Oct-99	186	2.13	0.00	-2.87	-0.35	1.71	2.27	-2.97	-3.75	0.00	0.00	0.66	-0.28	0.00	1.52	-0.08	0.00	0.06	-1.80	-11.40	-0.07
22-Oct-99	187	-0.01	0.00	-0.27	-0.43	2.91	-7.93	-2.02	-7.07	0.00	0.00	-0.04	-4.12	0.00	-2.33	-0.60	0.00	0.06	-1.80	-11.40	-0.07
29-Oct-99	188	-0.53	0.00	1.04	0.42	-0.08	-1.52	0.00	0.48	0.00	0.00	5.45	-3.11	0.00	-0.19	0.00	3.97	0.00	-3.18	-4.04	-0.50
5-Nov-99	189	-2.46	0.00	-0.91	-8.58	0.29	-0.22	0.00	9.63	0.00	0.00	5.45	-3.11	0.00	0.05	0.00	0.00	0.00	-0.45	1.11	-1.01
12-Nov-99	190	0.17	0.00	-3.30	-1.17	0.00	-1.74	-8.32	-8.79	0.00	0.00	-5.47	5.14	-11.10	0.00	0.46	0.00	0.00	0.00	0.00	0.02
19-Nov-99	191	0.46	-10.00	6.36	1.60	0.10	0.00	-3.52	7.08	0.00	0.00	5.78	-0.49	0.94	0.46	-1.59	0.00	0.00	-2.91	1.67	0.62
26-Nov-99	192	2.04	0.00	-2.73	3.62	0.02	0.03	-7.40	2.95	0.00	15.66	8.95	11.39	-6.39	-0.55	-1.59	0.00	0.00	0.00	1.88	1.33
3-Dec-99	193	0.05	0.00	-0.15	-5.92	0.50	11.96	-0.34	0.24	0.00	0.66	3.34	-1.10	-3.32	0.19	0.00	0.00	0.00	-0.10	7.52	0.76
10-Dec-99	194	-2.02	0.00	0.00	0.05	1.37	-9.82	-0.16	0.17	0.00	0.00	2.03	-8.01	-3.87	5.68	-0.50	0.00	0.00	0.00	0.33	-0.33
17-Dec-99	195	2.10	0.00	0.00	1.12	-1.95	-0.40	2.15	0.30	0.00	-3.21	-0.12	-4.49	0.00	-2.25	0.00	0.00	0.00	2.32	-0.24	0.23
24-Dec-99	196	-0.70	0.00	0.00	-0.42	0.10	-1.15	0.00	-0.45	0.00	0.00	-1.95	2.24	0.00	-1.39	0.00	0.00	-0.54	-0.73	-0.36	0.00
31-Dec-99	197	0.49	0.00	0.96	0.48	0.49	0.00	0.00	0.46	0.00	0.00	0.28	4.14	5.17	-1.57	0.00	8.24	0.00	-0.30	-0.12	-0.76
7-Jan-00	198	0.61	0.00	-0.95	0.07	-0.08	10.53	0.00	1.08	0.00	-0.37	-0.31	3.59	3.15	-0.44	-2.26	-2.68	0.00	-1.26	1.01	-0.29
14-Jan-00	199	0.02	0.00	1.31	-3.02	-0.45	0.09	-8.62	-1.14	0.00	1.09	-1.75	0.35	0.00	3.53	-3.21	0.00	-6.16	0.18	0.07	0.01
21-Jan-00	200	-2.15	0.00	-0.87	-1.08	1.90	-1.82	8.05	0.69	0.00	2.70	-1.61	2.62	3.46	-1.36	-3.21	0.00	7.14	0.00	-0.72	-0.76
28-Jan-00	201	-0.50	0.00	0.65	0.07	0.11	0.35	0.00	0.97	0.00	-0.11	-1.25	-12.32	-0.15	1.22	-1.85	0.00	0.00	-0.18	0.80	-0.38
4-Feb-00	202	-4.41	0.00	-0.88	0.00	-0.03	-3.11	-11.92	-1.71	0.00	6.31	-0.74	0.80	0.00	-4.30	1.32	0.00	0.00	-1.46	-2.25	-1.06
11-Feb-00	203	-0.52	0.00	0.73	0.07	-2.38	0.00	-1.34	-3.46	0.00	12.34	-16.01	-2.55	0.00	-10.96	-0.76	0.00	0.00			
18-Feb-00	204	1.34	0.00	-0.95	1.19	1.56	-2.68	-6.49	-16.17	0.00											

25-Feb-00	205	15.14	0.00	0.04	16.59	7.06	0.00	0.00	-0.77	0.00	-5.24	11.69	0.49	-7.69	-8.48	1.29	2.33	0.00	1.48	2.73	0.62
3-Mar-00	206	1.52	0.00	0.27	12.62	18.32	2.53	-2.78	0.44	0.00	-0.28	1.27	0.04	-14.92	0.88	0.00	0.00	0.00	0.36	-3.60	-0.20
10-Mar-00	207	-1.71	0.00	-0.23	0.93	-14.51	-4.56	0.02	0.05	0.00	-1.01	-0.62	0.44	0.00	21.20	-0.07	0.00	0.00	3.56	0.46	0.21
17-Mar-00	208	-18.68	0.00	3.58	-14.56	-8.06	0.00	2.83	-0.46	0.00	2.30	0.62	-0.43	-8.58	-10.11	0.00	0.00	0.00	0.00	-2.60	-1.18
24-Mar-00	209	23.68	0.00	3.90	1.53	1.20	0.06	-2.73	-0.67	0.00	-2.83	3.62	-6.33	0.04	-5.15	1.63	0.00	-16.67	1.05	-1.02	0.92
31-Mar-00	210	0.11	0.00	-4.89	-1.13	-1.48	0.44	0.15	-2.01	0.00	0.00	2.56	-6.15	0.08	-3.65	0.00	0.00	0.00	0.61	-4.21	0.05
7-Apr-00	211	0.03	0.00	1.31	0.84	2.37	0.00	-2.17	-0.34	0.00	0.31	0.65	4.36	2.01	0.98	0.00	0.00	-20.21	4.84	-8.03	-0.19
14-Apr-00	212	0.50	0.00	-1.52	0.52	0.27	0.00	-14.69	0.45	0.00	3.94	0.26	6.85	-1.40	1.03	0.00	0.00	0.41	0.08	-1.90	0.28
21-Apr-00	213	-0.54	0.00	-2.11	0.38	-0.88	0.00	7.14	2.41	0.00	0.00	0.16	1.23	-3.34	6.07	0.00	0.00	-1.29	0.00	0.93	-0.92
28-Apr-00	214	-1.16	0.00	1.92	-6.22	-0.12	-23.92	0.00	-0.24	0.00	3.64	3.07	-6.80	0.00	5.35	0.00	-3.99	1.17	0.00	0.26	-0.58
5-May-00	215	0.38	0.00	5.55	0.28	0.11	5.94	5.23	0.19	0.00	1.11	-1.56	-12.85	0.00	-0.27	0.00	0.00	1.65	9.34	-15.24	0.46
12-May-00	216	-0.72	13.89	0.32	-0.50	0.01	4.94	5.41	-0.08	0.00	-4.63	1.77	15.94	-1.68	2.06	0.00	0.00	0.25	0.04	0.44	-0.66
19-May-00	217	0.28	0.00	0.00	1.20	0.56	6.42	3.54	0.00	0.00	-6.58	-0.17	-0.37	0.00	-0.62	0.00	-5.32	-11.20	-1.84	-8.80	-1.37
26-May-00	218	-0.56	0.00	1.39	-0.48	-0.48	0.00	5.55	0.00	0.00	0.44	1.68	2.92	0.00	-0.13	-3.16	0.00	-1.64	0.00	-15.65	-1.20
2-Jun-00	219	-2.79	0.00	0.28	-1.14	0.78	-3.27	-3.81	-0.63	0.00	0.66	3.80	-3.25	0.00	0.99	0.00	0.00	0.00	1.69	-0.76	-0.29
9-Jun-00	220	-1.21	0.00	1.23	-1.19	-0.95	6.29	0.00	-10.29	0.00	0.78	0.46	-3.18	-0.75	0.04	0.00	0.00	0.00	-1.90	-0.10	-1.56
16-Jun-00	221	-0.15	0.00	-0.52	-1.86	1.00	-14.52	-4.20	-1.33	0.00	0.00	-2.05	-2.44	-3.76	3.17	0.00	0.00	-5.26	-5.32	0.61	-1.58
23-Jun-00	222	1.20	0.00	0.66	-3.66	1.43	-14.43	0.21	-4.73	0.00	5.06	-1.15	6.03	0.00	1.50	0.00	0.00	0.00	-8.55	0.10	-1.61
30-Jun-00	223	0.24	-1.95	0.41	1.70	2.26	-11.12	0.00	2.41	0.00	1.03	-0.14	1.02	0.00	-1.58	0.00	0.00	-2.58	-14.70	1.87	0.98
7-Jul-00	224	0.70	89.05	0.83	5.34	3.32	0.16	-0.31	2.46	0.00	0.21	-0.13	-6.38	-0.78	-3.66	0.00	0.00	2.80	2.21	-2.30	0.79
14-Jul-00	225	-0.55	0.00	4.54	-0.32	3.04	0.00	-1.80	1.22	0.00	0.61	-2.42	1.66	-2.50	-1.68	0.00	0.00	-0.33	0.00	2.50	-0.21
21-Jul-00	226	0.22	0.00	4.44	1.17	-0.81	0.00	0.00	7.17	0.00	-0.61	0.35	-6.77	1.76	0.96	-2.78	0.00	-0.50	1.45	-3.31	-0.77
28-Jul-00	227	-1.99	0.00	0.06	-0.50	-1.45	2.00	-1.08	3.58	0.00	-2.44	-10.39	-4.13	0.00	-1.28	-2.86	0.00	0.00	0.00	0.42	-0.27
4-Aug-00	228	-3.75	0.00	0.03	0.05	2.40	13.32	0.77	0.53	0.00	0.00	-0.08	-0.97	0.00	-1.77	0.00	0.00	-1.79	0.00	0.84	-0.23
11-Aug-00	229	3.93	0.00	-0.75	5.16	3.79	0.00	-0.63	0.17	0.00	0.00	3.30	0.40	0.00	1.39	0.00	0.00	0.00	0.00	-3.26	-0.11
18-Aug-00	230	0.86	0.00	0.79	-0.16	-0.17	0.00	-0.29	0.12	0.00	0.00	3.88	-2.06	0.00	-0.68	0.00	0.00	0.00	2.19	-3.30	-0.16
25-Aug-00	231	0.90	0.00	0.16	0.33	1.34	0.00	0.00	1.70	0.00	-3.56	5.97	-5.42	0.00	3.49	0.00	0.00	-0.30	-2.04	-0.26	0.32
1-Sep-00	232	0.46	0.00	-1.00	1.44	-1.66	0.00	0.16	-1.37	0.00	0.00	2.60	9.19	0.00	5.81	0.00	0.00	-0.22	-0.52	-2.39	0.93
8-Sep-00	233	-0.30	0.00	1.01	2.48	-2.71	0.00	2.91	0.20	0.00	1.10	5.04	3.03	-3.57	1.46	0.00	0.00	0.00	-0.69	-1.99	1.66
15-Sep-00	234	1.00	0.00	0.56	9.02	0.28	0.00	-7.82	1.10	0.00	6.05	1.20	0.16	2.06	4.25	-0.74	0.00	0.00	0.00	-0.54	-1.06
22-Sep-00	235	0.54	0.00	-0.59	-0.10	1.59	0.00	-0.70	1.11	0.00	0.00	-0.89	0.10	-3.97	-2.33	0.00	0.00	-2.22	-7.61	-1.84	0.14
29-Sep-00	236	1.13	0.00	0.62	-2.18	0.85	0.00	-0.70	1.11	0.00	-2.08	1.13	5.60	-7.27	1.84	-2.52	0.00	0.00	1.20	-1.99	-1.43
6-Oct-00	237	1.43	-45.79	1.52	0.23	-1.79	0.00	5.66	-0.45	0.00	0.62	1.48	2.06	0.00	-4.11	-1.22	0.00	0.00	-1.05	-4.88	0.54
13-Oct-00	238	1.82	0.00	1.80	1.07	1.08	0.00	0.00	4.64	0.00	0.00	1.91	0.93	4.48	-0.60	0.00	15.00	0.00	1.99	-24.65	-0.10
20-Oct-00	239	3.06	-2.91	-0.27	0.41	-0.12	0.00	0.00	5.37	0.00	-1.89	-0.13	-4.32	-12.47	-0.50	10.77	1.09	0.00	0.00	20.93	0.83
27-Oct-00	240	1.72	0.00	1.38	-1.04	0.89	3.32	0.00	5.35	0.00	0.00	0.13	4.84	-1.32	0.33	0.00	0.00	0.04	2.07	2.35	-1.18
3-Nov-00	241	0.99	0.00	-1.31	-0.34	0.30	-0.70	0.00	7.08	0.00	0.00	-4.04	-0.33	4.21	2.98	0.00	0.00	0.00	-3.25	2.71	-0.64
10-Nov-00	242	-10.14	0.00	-0.30	1.18	0.58	0.26	0.74	-0.56	0.00	0.00	-1.13	-0.11	2.07	-1.01	0.00	0.00	0.00	-0.31	2.84	-0.36
17-Nov-00	243	-2.66	0.00	-0.45	-1.41	-0.76	0.72	1.40	-3.26	0.00	0.00	0.60	0.16	1.18	0.00	-0.56	0.00	-1.92	0.33	-2.26	-0.56
24-Nov-00	244	-3.59	0.00	-0.06	1.04	-0.24	3.42	0.00	0.83	-2.61	-3.36	1.70	-0.59	-1.38	-2.78	0.00	0.00	0.00	-0.50	0.59	-0.84
1-Dec-00	245	-1.30	0.00	0.48	-0.25	-1.11	0.00	0.83	-2.61	0.00	-1.83	1.73	-2.33	0.00	0.56	0.00	0.00	0.00	-6.05	-0.11	-2.61
8-Dec-00	246	-4.39	0.00	1.06	-5.17	-0.71	0.00	-0.11	-1.60	0.00	-5.41	-0.59	-17.36	0.00	-11.30	0.00	0.00	0.00	5.00	-2.14	-1.46
15-Dec-00	247	-9.12	0.00	0.75	-4.22	-0.14	0.00	-0.05	-20.02	0.00	-3.57	0.26	-11.93	0.00	0.10	0.00	0.00	-2.20	7.43	-11.40	2.04
22-Dec-00	248	-11.79	0.00	0.41	-10.02	-0.60	-4.67	-2.76	-1.65	0.00	7.87	1.37	23.32	0.00	3.19	0.00	0.00	-7.65	-10.45	3.00	0.41
29-Dec-00	249	21.85	0.00	-0.41	4.80	0.00	0.00	0.38	3.27	0.00	0.00	-1.31	4.24	0.00	0.99	-19.33	0.00	-4.79	0.00	2.17	-3.01
5-Jan-01	250	0.36	0.00	1.01	6.61	-5.54	0.00	-1.57	10.02	0.00	0.37	0.16	-21.61	-58.20	5.49	-3.05	0.00	-3.72	0.00	-1.62	3.08
12-Jan-01	251	5.90	0.00	-0.62	1.50	-3.93	0.00	-4.75	-51.49	0.00	0.00	1.86	-0.75	0.00	3.91	0.00	0.00	4.36	-0.35	-0.02	-0.03
19-Jan-01	252	-4.40	0.00	1.06	-0.73	-1.20	0.00	0.00	146.52	0.00	8.66	2.74	1.20	0.00	1.00	0.00	0.00	0.99	0.35	1.86	1.57
26-Jan-01	253	-5.87	0.00	0.50	-0.51	-0.57	0.30	0.03	-6.52	0.00	-1.33	-2.05	1.65	126.62	5.03	-7.06	0.00	1.00	3.33	2.33	2.60
2-Feb-01	254	1.51	0.00	0.29	0.43	-0.05	-49.49	0.73	0.98	0.00	8.49	-0.02	-0.98	5.27	-0.83	0.00	0.00	0.00	-3.91	29.47	-0.06
9-Feb-01	255	1.74	0.00	0.75	0.09	-10.10	93.25	9.03	-9.96	0.00	1.18	0.69	1.32	0.00	-5.58	0.00	0.00	0.00	0.00	0.00	0.00
16-Feb-01	256	2.30	0.00	-1.55	-4.31	0.21	0.00	1.96	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

23-Feb-01	257	-0.11	0.00	-12.21	1.30	0.00	0.00	-7.32	4.05	0.00	-0.58	-0.36	-2.09	-1.96	-0.40	0.00	0.00	-0.71	6.36	-5.99	-0.52
2-Mar-01	258	3.72	0.00	3.19	-0.11	-10.22	0.00	6.32	-2.66	0.00	2.92	-0.28	19.23	-2.26	6.44	0.00	0.00	-0.39	1.00	-0.22	-0.16
9-Mar-01	259	3.59	0.00	-4.71	-3.03	-4.31	0.00	-0.52	-1.92	0.00	2.52	-12.63	11.53	0.00	-4.05	0.00	0.00	0.00	-0.52	-3.27	-0.86
16-Mar-01	260	-4.83	0.00	-5.21	-1.84	8.25	0.00	-6.67	0.01	0.00	-0.29	-2.53	-1.17	0.00	0.65	0.00	-19.57	-13.06	1.88	-4.57	-1.21
23-Mar-01	261	-1.36	0.00	-0.04	-2.19	2.52	0.00	9.69	-1.72	0.00	-1.21	0.72	-9.84	-12.46	0.47	0.00	0.00	0.00	-0.30	-14.25	-0.35
30-Mar-01	262	2.75	0.00	0.00	-0.94	0.66	0.00	-8.08	3.38	-6.67	3.34	-1.81	3.86	0.00	0.97	0.00	0.00	0.00	-0.63	0.40	-0.94
6-Apr-01	263	-0.29	0.00	0.00	4.75	2.61	0.00	-2.80	0.20	0.00	-31.53	-0.05	0.25	-12.38	5.16	0.00	0.00	0.00	0.00	-0.42	0.01
13-Apr-01	264	0.42	0.00	0.00	-1.32	2.15	0.00	0.00	-1.19	0.00	3.38	2.68	0.09	-0.76	7.18	0.00	0.00	-12.77	0.00	-0.09	-1.24
20-Apr-01	265	-0.43	0.00	-3.57	-5.89	-2.61	0.00	-3.49	-11.45	0.00	0.00	1.54	6.08	0.00	-4.32	0.00	0.00	0.00	0.11	-3.12	-0.94
27-Apr-01	266	0.82	0.00	-3.38	2.83	1.42	0.00	-3.29	-1.04	0.00	-3.43	-3.12	-1.04	0.00	-16.88	0.00	0.00	0.00	-4.25	-9.87	-1.40
4-May-01	267	-9.48	0.00	7.33	-3.38	-29.99	0.00	0.25	-3.11	0.00	1.96	-0.38	-0.40	0.00	0.83	-2.88	-6.80	-9.92	-2.30	-12.42	-2.16
11-May-01	268	-2.23	0.00	0.00	-1.93	-2.49	-4.29	-0.25	0.21	0.00	4.33	1.66	4.46	-2.97	0.88	0.00	0.00	-2.31	-3.08	-7.45	-1.08
18-May-01	269	0.71	0.00	0.00	-0.03	-2.02	0.00	-1.61	-8.57	0.00	-0.40	1.53	11.04	3.06	-0.78	0.00	0.00	0.00	-1.41	-0.46	0.55
25-May-01	270	-0.15	0.00	0.00	-0.56	-2.86	32.23	-0.24	-5.68	0.00	4.25	0.87	-2.79	2.22	-1.21	0.00	0.00	0.00	-0.87	0.44	0.74
1-Jun-01	271	1.96	0.00	0.00	-1.08	-3.90	29.80	0.76	2.76	0.00	9.41	1.90	-4.93	0.00	-0.21	0.00	0.00	2.31	-0.29	-0.27	0.15
8-Jun-01	272	7.97	0.00	0.00	3.37	-2.10	-9.57	-8.67	24.18	0.00	-0.69	8.43	1.81	-4.33	-0.06	0.00	0.00	-2.22	1.25	1.21	0.49
15-Jun-01	273	-1.37	0.00	-0.64	-2.68	-6.18	0.00	3.34	14.22	0.00	-1.10	-0.72	-5.81	2.26	-0.17	0.00	0.00	-1.14	-1.23	1.12	0.44
22-Jun-01	274	2.96	0.00	2.92	-1.98	0.69	0.00	-3.57	-10.11	0.00	-0.51	-0.98	2.83	0.00	-0.50	0.00	0.00	1.15	-0.14	0.95	-1.13
29-Jun-01	275	7.37	0.00	-9.97	1.24	5.27	-51.44	-0.85	-7.97	0.00	-1.32	-2.45	3.10	0.00	-0.04	0.00	0.00	3.98	-0.81	-0.32	-0.04
6-Jul-01	276	-1.08	0.00	8.61	1.84	-0.06	0.00	0.00	-4.72	0.00	-0.84	0.18	-2.18	0.00	-1.82	0.00	1.25	0.00	-0.18	-6.32	-0.56
13-Jul-01	277	-4.89	0.00	-2.41	-1.83	1.70	0.00	0.94	-3.52	0.00	-0.05	1.83	-4.25	0.00	-1.81	0.00	0.00	0.00	-0.61	2.69	-0.18
20-Jul-01	278	0.57	0.00	-1.18	3.66	1.77	0.00	-1.23	2.85	0.00	-0.91	-0.87	1.25	-2.50	-4.92	-10.89	0.00	0.00	-0.61	2.69	-0.18
27-Jul-01	279	0.73	0.00	3.70	0.48	-4.53	34.05	-0.71	5.80	3.57	-2.97	1.08	-4.12	-6.41	-5.09	0.00	0.00	0.40	-1.14	-3.06	0.21



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