

**SJU M.B.A. FUND ANALYSIS**

**Dell Company**

**A Project**

**For**

**FIN 284 Asset Management**

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# **SJU M.B.A. FUND ANALYSIS**

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## *Executive Summary*

The technology industry is one that has been drastically affected by the recent downturn in the economy. Almost all companies in this sector have seen their financial performance decline by large numbers, seen their market shares decrease, laid off employees, and tried to execute new strategies to help their organization survive through these tough times. Despite Dell's and the industry's poor financial performance as a whole, the company has still fared better than every other company in the industry. There are certain segments that the computer has made profits from and these include the server and storage segments of the market. The reason the company isn't seeing profits from the PC segment is because the company has lowered prices for a couple of reasons. First of all, the prices of components are declining. Secondly, Dell is lowering prices as a marketing strategy in order to get more individuals to purchase their PC's and to increase its market share in this way.

After completing the research, if we are going to invest anything in the technology sector, Dell would be a smart choice for the long run. The research suggests that the company and its strategies will continue to help them achieve profitability in the future as well as increase market share thus, increasing its returns to shareholders, once the company begins to pay dividends, which should be a couple of years down the line.

Based on the ratio analysis, the trend analysis the valuation models and risk analysis of the company we recommend that we allocate 2% of the maximum 3% of the funds available in the Dell Computer Corporation to achieve the long run return desired. With Dell's current price of about \$29.98 we can buy about 650 shares of the stock

### **Company Description**

Dell Computer Corporation is the world's largest manufacturer of direct computer systems. The company's revenue in fiscal year 2001 was \$31.9 billion and it also established itself as the world's number one computer company.

### **Geographic areas of Operations**

The company conducts operations worldwide and is managed on a geographic basis. The company is broken down into three geographic segments, the Americas, Europe, and Asia-Pacific and Japan regions. The company's headquarters are located in Austin, Texas and its manufacturing facilities are located in Nashville, Tennessee, Brazil, Ireland, Malaysia, and China.

### **Key Products**

Dell's products and services include enterprise systems, servers, storage products, workstations, notebook computers, desktop computers, and beyond the box products and services, which include software and other programs to complement their systems.

A majority of the company's revenues come from two segments in which they operate. The first being the desktop segment where the company earns over 50% of its system revenues and has the most unit shipments. The second segment of the product line which continues to improve and show substantial growth opportunities is Dell's server segment. This will be one of the segments that the company can capitalize on in the future and increase revenues.

### **Sales and Marketing**

Dell's customers range from large corporations, government agencies, healthcare and educational institutions, small businesses and individuals. The company uses similar

sales and marketing strategies to all customer groups. Demand levels for all the groups are driven by changes in market prices and general economic conditions. Within each of its regions, Dell has divided its sales and marketing forces among the various customer groups' specific needs.

### **Market Information**

Dell's common stock is traded on the NASDAQ National Market under the symbol DELL. The company had never paid out cash dividends on its common stock and had not anticipated paying any cash dividends until at least this year.

### **Management's Discussion and Analysis of Financial Condition and Results of Operations**

Dell's objective is to maximize stockholder value by executing a strategy that focuses on a balance of three priorities: liquidity, profitability, and growth. Management believes that opportunity exists for worldwide growth by increasing the company's market presence in its existing markets, entering new markets, and pursuing additional products and services. Dell continues to expand its products and services to meet a variety of customer needs. The company also continues to enhance its reputation and the quality of all its products and services.

### **Evaluation of Management**

Michael Dell is the founder and the CEO of Dell computer corporation. He started the company while attending the University of Texas. He's been in the computer industry ever since he was a teenager when he bought parts from IBM and made computers at home to sell. He's a member of the U.S. Chamber of Commerce, the Computerworld/Smithsonian Awards, and the World Economic Forum Foundation. He has sufficient experience in the industry.

Other members include Kevin Rollins and James Vanderslice. Both of these men are President and Chief Operating Officer. Rollins, prior to joining Dell was employed by Bain & Company, an international strategy consulting firm. Vanderslice joined Dell in 1999. Prior to coming over, he served as Senior Vice President and Group Executive for IBM's Technology Group and he was also a member of their executive committee. He was responsible for IBM's storage systems, microelectronics, networking-hardware, and printer-systems division.

Dell's management team is strong and diverse. Top management includes individuals who have experience in all types of backgrounds like CIS, management, MIS, finance, consulting, etc. When people from different backgrounds and experiences come together it is an advantage for the company when it comes to coming up with strategies and new ideas as well as resolving problems.

### **Industry Overview**

The computer-equipment sector includes electronic computers, storage devices, computer terminals, and computer peripheral equipment. Computer hardware sales are driven by the business segment. The personal computer segment pricing is usually influenced by the price of its components. PC sales are driven by businesses and individual consumers.

The computer industry has drastically been affected by the downturn of the economy. Many large industrial companies have cut their IT budgets after realizing how much they had overspent in this area over the past 4 or 5 years.

The computer industry in general faces high risk because of its emphasis on price competition, short product life cycles, abrupt changes in growth and demand, and a high investment requirement. The long-term fate of the computer industry remains questionable at this point in time. Many big players in the industry such as Apple and Gateway have changed their prospects over the last several months.

PC industry growth has slowed down sharply over the past year and a half due to the recent downturn of the U.S. economy. Worldwide unit growth is expected to grow 10 percent from the stronger international markets. One of the places where growth is expected to take place the strongest is in the Asia/Pacific Rim region where growth has accelerated.

As a result of the slowdown in the desktop segment, many companies are responding by entering the hardware industry and are beginning to focus on the server, services, and storages sectors for growth. Many of the companies have started bundling their servers with services and storage devices. This locks-in customers to buy more hardware from one vendor rather than from separate vendors.

The industry is becoming concentrated among a few large computer manufacturers and these include Dell, Compaq, Hewlett Packard, IBM, and Sun Microsystems. These top 5 vendors account for almost 50 percent of the units shipped.

Recently there has been an increasing emphasis on the direct sales model approach. This business model was pioneered by Dell and this strategy allows them to keep their prices below their competitors. This type of distribution yields significant savings through lower inventory levels. This also provides savings because manufacturers don't pay for guarantees and incentives that indirect sellers pay.

The demand for PC's is at the maturity stage and the sub-\$1000 market has contributed to this factor. Another reason for the declining prices for PC's is that component prices have been declining as well. This trend is likely to continue because of the increase in the number of semiconductor manufacturers who produce microprocessor chips.

Standardization in system components, disk drives, and software also keeps PC prices down and also helps to expand the market. It also provides interchangeability between different computer systems and software systems. This is important in the personal computer industry because without standardization, prices of PC's would be too high for the average customer.

There are several things that computer companies can do in order to be successful in the industry and meet the conditions necessary to compete. First of all, an aggressive pricing strategy is necessary in order to maintain and increase their market share. Secondly it's important for companies to have strong cost control in order to maintain profitability with the existing price competition. This also means investing in manufacturing facilities, which are state-of-the-art in order to achieve the lowest costs possible. Finally, companies need to adapt to the continuous market changes in order to adapt to consumer needs. Companies must also have low inventory costs and unused manufacturing capacity.

### **Analysis of Competitive Forces**

Michael Porter identifies five forces that challenge the firm's ability to maintain or expand market share and profitability. These forces are identified as industry competitors,

potential new entrants, buyers of our products, our suppliers, and substitute products and services.

The basic elements that influence industry structure are identified as follows: In the context of developing a competitive strategy, Porter suggests that cost leadership, differentiation, and focus underlie effective and successful corporate strategies. Dell has achieved the position of low-cost leader, and the distinct cost advantage will lead to higher profitability. As the market matures and becomes more competitive, customer expectations change, often requiring that the product be differentiated and that the original value proposition be upheld, and that is what Dell is currently pursuing. This maturity in the market will also lead to increased focus on increasingly smaller market segments that desire differentiation based on cost or features and benefits.

Whether competitors compete on form, industry, or by brand, they must identify the many components of their competitive strategy. Brand recognition is often associated with the breadth of the product offering, and the degree of specialization and knowledge associated with the manufacturer. IBM and Hewlett-Packard are recognized for quality and expertise in the computer industry and support a broad product line. Alternatively Dell focuses on low price relationship to generate customer interest, on alternative channels of distribution that include vertically integrated channels such as their own retail stores, industrial channels, other specialty outlets, and electronic media such as Internet.

The likelihood and extent of a competitive response depends first of all on the market position of the attacker. Often strategies are most successful when the attacker holds a sustainable competitive advantage, when the Challenger is at least competitive on the other features and benefits important to the customer, and when the expected retaliation

will have limited effectiveness. Dell computer's ability to produce PCs on the leading edge of technology at a lower cost through non-retail channels has significantly altered the competitive marketplace. Dell relies on either (1) superior resources to invest in the market, (2) a strategic window of opportunity presented by a change in either operational efficiencies or new technology that allow the firm to meet changes in the product, market, or distribution channels, or (3) the market segmentation/product differentiation strategy that read deadlines that companies market/product matrix to focus on new market segments with new products or new channels of distribution.

Dell has chosen to conduct business online and has taken advantage of a strategic window of opportunity that has produced great resources delivered through, new technologies, and new channels of distribution allowing direct access to the end-user or purchaser of a product or service.

### ***Dell's Competitive Strategy***

Dell's competitive strategy is the **key** to the company's success and it's their distribution model and its lean cost structure. Both of these strategies have given the company a competitive advantage over others in the industry. The company's business strategy is based on the direct business model. With this model, they can deliver the best customer experience through direct, comprehensive customer relationships, cooperative research and development with technology partners, computer systems built to customer specifications, and service and support systems geared towards customer needs.

Dell's direct model gives the company several competitive advantages over others in the industry. First of all, it eliminates the need to support a network of wholesalers and retail

dealers. This avoids dealer mark-ups. Second of all, this model reduces inventory costs, which are associated with the wholesale/retail distribution channels. Inventory is big in the technology industry. Dell uses JIT (just-in-time) inventory practice, which means that they keep very minimal inventory of components on hand. Not only does this reduce expenses on the financial statements but it also keeps technological components from being outdated. Other companies in the industry have had a hard time reducing their inventories. By the time they go to use the component it had become outdated so it increases their costs. Dell keeps their inventory costs at a minimum. Dell's inventory turnover rate is about 4 days while the industry's is around 15. This model also helps to avoid competition for shelf space in the retail markets.

Dell's direct distribution strategy can be credited for the company's lean cost structure. The company is heavily exposed to the slow growing PC market however, Dell's market share continues to accelerate compared to the rest of the industry. As the industry continues to move towards standardized technology, cost structure will become a key issue and Dell already has an advantage over the rest in this area.

### **Growth Drivers/Catalyst**

There are several conditions under which the financial of performance of Dell and the industry can improve as a whole. First of all, if the economy can turn itself around, Dell's performance should improve as well. With the downturn of the economy, many businesses are cutting their budgets and staff, which means there is less need for computers. Also, if the economy turns around and business picks up, companies will once

again need updated technology and an increased number of computer systems as they increase staff.

A second area of the company that Dell can concentrate on is the server segment of its operations. Dell just recently began manufacturing servers a few years ago and now they are number 1 in that market. Companies in a recent survey have said that they prefer Dell's servers, services, and support to help run their organizations. The company that I work for, Magnacare, just recently updated our systems and now we use Dell's front-end servers to support our network. Since they already have a great reputation, they can take it to the next level and enter some untapped markets in countries, which are still developing. Dell in the last few years also overtook Compaq, and now has the number 1 markets share in the world of PC's. When the economy turns around, Dell's reputation of PC's should help the company regain the profitability it once had. Not only will companies and private institutions increase their purchases of PC's, but so will the individual consumer as families find the need to have more than one PC in the home. Right now only a small percentage of households have more than one computer in the house and this number is on the rise so Dell can take advantage of this situation.

### **Future Opportunities and Strategies For Success**

Dell currently holds about 17% of the worldwide PC revenues. This leaves approximately \$150 billion of untapped revenue potential for Dell in the industry. This is a tremendous market opportunity for Dell to take advantage of by expanding its competitive advantage in the PC market. As long as Dell's competitors use the indirect model of distribution and go through vendors and retailers, this opportunity is Dell's for

the taking. It is one of the few companies that can survive a decline in the prices of PC's due to their lean cost structure. Their cost structure advantage due to their direct distribution model has led to the company's increase in market share and profitability throughout its history.

Despite of their success the company has continued to improve its advantage even further by reducing its operating expenses dramatically. Dell's operating expense ratio declined from 11.9% in the 2<sup>nd</sup> quarter of 2000 to 9.9% in the most recent quarter of 2002. The company that stands behind Dell in this category, Hewlett-Packard's ratio is in the mid-teens. With constant improvements such as these, Dell continues to be the most efficient company in the industry, which explains why its competitors have been losing market share and profitability to Dell. As long as Dell continues to be efficient and expand on its competitive advantage, there's no reason why they won't dominate the PC market in the future.

Most of Dell's market share gains throughout the 1990's came from its major competitors such as Hewlett-Packard, IBM, and Compaq. The non-branded segment of the PC market has not been penetrated by any of these major companies in the industry. Non-Branded PC's currently account for nearly 35% of the worldwide PC market.

One strategy that Dell plans on pursuing is partnering with these vendors to improve profitability and increase its growth. With this partnership not only will Dell grow, but they can also help non-branded vendors improve their profitability. This strategy can work once again due to Dell's cost structure. The cost structure of the non-branded vendors is large because they don't benefit from discounts from suppliers, they pay more than a branded vendor for their distribution channels, and they also don't have

the same volume manufacturing efficiencies as Dell because their business is localized. If these vendors were to partner with Dell, it can help reduce many of their inefficiencies and reduce excess costs, thus increasing profitability.

Another segment where Dell has tremendous opportunities is in the front-end server market. These front-end servers usually on the edge of any network and their job is to handle such intensive applications such as filing, printing, web serving, e-mail, and other business software. These are the servers that we see in many businesses and offices to handle such applications and because of what these servers do, the market considers Dell's servers as good enough solutions, which offer superior price performance, as opposed to back-end servers which do the same things plus more but are very expensive.

Dell is the leader in market share in front-end servers and once again this can be attributed to their competitive advantage, which is its direct distribution strategy. This strategy helps Dell achieve a competitive cost structure in this segment for three **key** reasons. First of all, they manufacture their servers on demand while other companies that sell through the dealer channel try to forecast server demand, which is very difficult. This results in Dell having less factory inventory while others, based on their forecasts usually have an additional two weeks of server inventory, which increases their costs. Secondly, Dell doesn't have to pay any agency fees. Vendors that sell servers through the indirect channels have to pay this fee, which is approximately 6% of the total cost of the server. Finally, Dell doesn't have to worry about offering dealers price protection in order to compensate them for prices of declining components. All of these give Dell a competitive cost structure in the front-end server market.

Dell plans on taking advantage of its direct distribution strategy in this market and it will work because other companies are reluctant to abandon the dealer channel. The one disadvantage of Dell's model is that it will not work in those segments of the market in which vendors have to add their own technology to the servers and this includes the back-end of the server market. However, more and more business are switching to the front-end server because of what it can do, their reliability, and cheaper prices. Over time corporations and institutions will move away from the back-end segment because of standardization and this is where Dell can increase its growth in the front-end server segment.

Another strategy that Dell plans on pursuing involves using partnerships to expand into different markets. Since Dell is the cost structure leader in the computer hardware market, and with their direct distribution model, the company can leverage its presence in the commodity technology markets through well-constructed partnerships. This can work because owners of intellectual property such as storage systems and printers can reduce their cost structure by partnering with Dell for manufacturing and distribution. At the same time, Dell can reduce its costs in R&D by outsourcing this to the owner of the intellectual property. This can lead to gains in access to markets before they are fully commoditized thus, increasing Dell's potential revenue and profitability.

A perfect example of this is Dell's partnership with EMC, which specializes in storage subsystems. These two companies decided to partner in 2001. Dell utilizes EMC's technology budget for R&D while at the same time, EMC is rebuilding its margins by taking advantage of Dell's cost structure and direct distribution. The storage

subsystem market is expected to reach about \$30 billion by 2005, and Dell only has a 4% market share. There is tremendous potential for the company to grow in this segment.

### **Description of Financials**

#### **Net Revenue:**

Dell experienced growth in their net revenue in all geographic regions during fiscal year 2000 and 2001. Net revenue increased from about \$18 billion in 1999 to almost \$32 billion in 2001. This includes revenues from all of the company's geographic regions. The company's net unit shipments also increased by 29% in fiscal year 2001 and 50% in 2000. This growth for each of the years was a multiple of the overall industry. The Americas represented most of the company's revenue growth in both fiscal years while in the Asia-Pacific region, the company's net revenues continue to grow at a faster rate than the company as a whole. While the company changed its management team in Europe, revenue growth slowed down somewhat however, as the new management team executed the new business plan, all of Europe's year-over-year growth occurred in the fourth quarter. Although average revenue per unit decreased by 8% in fiscal year 2001, the number of units sold, increased. Average revenue per unit also declined because of price reductions resulting from component price declines.

#### **Gross Margin:**

From fiscal year 2000 to 2001, gross margin decreased only slightly from 20.7% to 20.2%. Most of this decrease occurred in the fourth quarter because cost savings was passed on the customer because of lower cost of components. This helped the company

to leverage the strength model in order to drive profitable market share growth. Dell expects this trend to continue for the foreseeable future due to current economic conditions. However, the company believes that because of its strong liquidity position, Dell is better suited than its other competitors to profitably grow its market share.

### **Operating Expenses:**

Selling, general, and administrative expenses increased from fiscal year 2000 to 2001. This was because of the company's expectations for higher net unit shipment and revenue growth. Dell invested heavily in personnel and other support costs for this anticipated growth. Management is currently in the middle of developing a plan in order to improve efficiencies and control expenses relative to revenue growth.

### **Liquidity and Capital Resources:**

2001. The Company ended fiscal year 2001 with a 7.9 billion in cash and investments. They invested a portion of their cash in highly liquid investments of varying maturities in order to minimize principal risk and maintain liquidity. The company has improved its asset management as the days of supply in inventory and days of sales in accounts receivable has decreased every year for the last three years. This also improved the company's cash conversion cycle. As a result, the company's return on invested capital increased to 355% in fiscal year 2001 from 243% in 2000.

Dell's recent growth is due to the company's ability to enter untapped markets where their presence is the smallest. Dell experienced a 21% increase in shipments to government and educational institutions. The product that has experienced the most

growth in the last couple of years is its servers. An independent study ranked Dell the best in customer satisfaction for servers for 16 of the past 17 quarters. Customer demand for Dell's servers jumped 27% over the last year. Earlier this year, the company entered a strategic alliance with EMC that increased their presence in the enterprise storage product category.

Dell's P/E ratio is about 41.4, where the industry's is 27.08. This means that Dell is considered to have earnings growth potential exceeding the prospects of the rest of the industry. Over the last 5 years, Dell's P/E ratio has had a high of 105.71 while the industry's high has been 44.97. The company is also the leader in growth rate ratios. The company's 5-year growth rate was 32.06 and the industry's was 10.89.

Earnings estimates are expected to increase from .21 to .23 by the end of the next quarter and by the end of 2003, earnings estimates are expected to be .96. Revenues are expected to go from \$8.8 billion this quarter up to \$9.5 billion in the next. Revenues are also expected to rise from \$34.9 billion this year to \$39.7 billion by the end of next. Earnings growth for the company over the next 5 years is expected to be 15%, while the industry's growth is expected to be about 13.0%. Out of 23 covering brokers 3 suggest a strong buy, 11 a buy, and 9 a hold. None of the brokers recommend a sell or a strong sell.

### **Current News of the Company**

On NOV 15, 2002 Dell Computer Corporation announced its financial results for the three months ended October 31, 2002.

### THIRD QUARTER

- Revenues were \$9,144 million, versus \$7,468 million in the year ago quarter.
- Consensus Estimate: \$9,052 million
- Net income was \$561 million or \$0.21 per diluted share versus net income of \$429 million or \$0.16 per diluted share in the year ago quarter.
- Consensus Estimate: \$0.21

### GUIDANCE

- Q4 revenue is expected to be nearly \$9.7 billion in line with the consensus estimate of \$9.7 billion.
- Q4 EPS is expected to be 23 cents, also matching the consensus estimate

According to Reuters Market News, Dell said it has plans to enter new markets including handheld computers and printers around the middle of next year. Even though the mini handheld computers are going to be a small part of the company's business, they expect it to do well.

According to the August 20<sup>th</sup> Wall Street Journal, Dell is expected to begin offering an unbranded desktop PC to U.S. dealers, many of which act as the computer departments for small businesses. Dell is poised to begin recruiting these dealers to sell its PCs.

According to the August 15<sup>th</sup> Wall Street Journal, the company announced that it expects a third quarter EPS of 20 to 21 cents on revenue of \$8.9 billion. Many analysts expected the company to report third quarter earnings of 20 cents per share on revenue of

\$8.6 billion. The company also cited a growing customer preference for Dell systems and services.

According to the August 6<sup>th</sup> Wall Street Journal, Dell announced that it has been selected by Sears, Roebuck and Co. to provide hardware and deployment services to update the technology and infrastructure of the company's 870 full-line stores. Dell plans to pursue other such opportunities from similar companies like Sears, and Roebuck.

Michael Dell announced that it would also be producing its own printer cartridges for the printers the company plans to put out in the market next year. Prices for printers and printer cartridges are expected to come down and with Dell's model of using standardized technologies would also help spur lower prices, thus increasing the company's revenues.

Dell also announced that it would lower the prices for its information technology services. This isn't one area that has been one of Dell's revenues however, this is one area that is expected to grow and Dell hopes to increase its revenues from this segment of its business.

On Oct 17, 2002 Dell Computer Corp. announced that it has added 50 new Dell Direct Store kiosks to new and existing locations beginning and over the next several weeks. Dell will open kiosks in 12 new markets, including San Antonio; Nashville, Tenn.; Charlotte, N.C.; Portland, Ore.; Louisville, Ky.; and Las Vegas.

On Oct 15, 2002 Dell Computer Corp. and EDS announced that they have extended their strategic relationship, expanding Dell's preferred provider status with EDS, and establishing EDS as a provider of select Dell customer support services. EDS has selected Dell as its global provider of Intel-based servers, notebook and desktop

computers to support EDS' Consistent Office Environment effort that standardizes computing hardware and software for more than 100,000 employees in 60 countries worldwide. Dell also will assist EDS in the delivery of support services for EDS' internal computer systems. Dell also will have primary provider status for Intel-based computer systems sold to EDS clients around the world. Financial terms of the agreements were not disclosed.

On Oct 03, 2002 Dell Computer Corp. and the United States Marine Corps announced the acquisition by the Marine Corps of more than 60,000 Dell OptiPlex desktop and Dell Latitude notebook computers.

On Oct 01, 2002 Dell Computer Corp. announced that revenue for its third quarter will reach \$9.1 billion, up 22% from one year ago. Earnings per share are expected to be 21 cents, at the high end of the initial guidance range and more than 30% better than in last year's third quarter.

On Sep 24, 2002 Dell Computer Corp. and Lexmark announced an agreement for the two companies to develop and produce Dell inkjet and laser printers and related aftermarket cartridges that will be sold directly to customers. By leveraging Lexmark's imaging technologies in the second phase, Dell and Lexmark will pursue initiatives aimed at producing workgroup, small business and personal imaging products with features and capabilities unique to Dell. Terms of the agreement and product descriptions were not disclosed, and the companies have not set any volume levels relative to this agreement.

On Sep 23, 2002 The Bombay Company Inc., designer and retailer of unique home accessories, wall decor and furniture, announced that it has turned to Dell

Computer Corp. to devise a storage consolidation strategy to simplify its storage management, improve network performance and help ensure high availability. Bombay will work with Dell Professional Services to install and implement a Dell EMC storage area network (SAN), adding 1.5 terabytes of additional storage. Bombay also plans to integrate a Dell PowerVault 755 network attached storage (NAS) server into the SAN to accommodate future storage growth and to help manage and better organize corporate data.

### Evaluation

Company Name: Dell Computer Corporation  
Ticker Symbol: DELL

Recommendation: Buy      Current Price: \$29.98 Target: \$35

### Sales and Earnings

	<b>1999% Growth</b>	<b>2000% Growth</b>	<b>2001 %Growth</b>
Sales	48%	38%	26%
EBITDA	34%	15%	23%
Net Income	55%	14%	31%
EPS	61%	12%	27%

**P/E 43**

**Price/Book 14.96**

**Price/Revenue 2.21**

**Beta 1.80**

### Balance Sheet Summary

Current Assets 8,283,000,000  
Fixed Assets 5,461,000,000  
Other Assets 318,000,000

Current Liab. 8,045,000,000  
L-T Debt 516,000,000  
Other Liab. 935,000,000  
Equity 4,566,000,000

**Total Assets 14,062,000,000**

**Total Liab + Equity 14,062,000,000**

**Key Ratios Comparisons With The Industry and With Top 3 Competitors (Hewlett-Packard, IBM, Sun Microsystems)**

<b>Key Numbers</b>	Dell Computer	<a href="#">Hewlett-Packard</a>	<a href="#">IBM</a>	<a href="#">Sun Microsystems</a>		
Annual Sales (\$mil.)	31,168.00	45,226.00	85,866.00	12,496.00		
Employees	34,600	86,200	319,876	39,400		
Market Value (\$mil.)	73,530.10	42,110.20	122,160.70	8,589.90		
<b>Profitability</b>	Dell Computer	<a href="#">Hewlett-Packard</a>	<a href="#">IBM</a>	<a href="#">Sun Microsystems</a>	Industry <sup>2</sup>	Market <sup>3</sup>
<a href="#">Gross Profit Margin</a>	18.26%	29.60%	42.45%	<b>47.60%</b>	19.08%	47.27%
<a href="#">Pre-Tax Profit Margin</a>	8.09%	-2.84%	<b>9.71%</b>	-8.46%	3.13%	5.07%
<a href="#">Net Profit Margin</a>	5.75%	-2.49%	<b>6.05%</b>	-4.18%	2.00%	2.39%
<a href="#">Return on Equity</a>	<b>40.40%</b>	--	22.90%	--	8.50%	5.20%
<a href="#">Return on Assets</a>	<b>13.10%</b>	-1.70%	5.80%	-3.10%	3.60%	0.90%
<a href="#">Return on Invested Capital</a>	<b>36.30%</b>	-2.90%	13.00%	-4.60%	7.70%	2.50%

<b>Valuation</b>	Dell Computer	<u>Hewlett-Packard</u>	<u>IBM</u>	<u>Sun Microsystems</u>	Industry <sub>2</sub>	Market <sup>3</sup>
<u>Price/Sales Ratio</u>	2.29	0.85	1.51	<b>0.69</b>	1.88	0.92
<u>Price/Earnings Ratio</u>	43	--	<b>25.84</b>	--	108.62	43.58
<u>Price/Book Ratio</u>	16.13	1.16	5.71	<b>0.88</b>	7.98	1.98
Price/Cash Flow Ratio	35.49	76.67	<b>11.9</b>	17.13	54.31	10.72

<b>Operations</b>	Dell Computer	<u>Hewlett-Packard</u>	<u>IBM</u>	<u>Sun Microsystems</u>	Industry <sub>2</sub>	Market <sup>3</sup>
<u>Days of Sales Outstanding</u>	<b>29.09</b>	83.36	110.76	79.08	29.77	50.67
<u>Inventory Turnover</u>	<b>89.9</b>	6.3	10.7	7.9	73	8.1
<u>Days Cost of Goods Sold in Inventory</u>	<b>4</b>	57	34	45	5	44
<u>Asset Turnover</u>	<b>2.4</b>	1	1	0.7	1.8	0.4
<u>Net Receivables Turnover Flow</u>	<b>12.1</b>	5.3	3.1	4.4	11.6	7.4
<u>Effective Tax Rate</u>	<b>28.90%</b>	--	29.10%	--	36.10%	--

Financial	Dell Computer	<a href="#">Hewlett-Packard</a>	<a href="#">IBM</a>	<a href="#">Sun Microsystems</a>	Industry <sup>2</sup>	Market <sup>3</sup>
	1.03					1.4
<a href="#">Current Ratio</a>		1.46	1.13	<b>1.54</b>	1.46	
<a href="#">Quick Ratio</a>						1
	0.8	0.9	0.9	<b>1.1</b>	1.2	
<a href="#">Leverage Ratio</a>						5.72
	3.08	1.95	3.94	<b>1.69</b>	2.33	
<a href="#">Total Debt/Equity</a>						1.42
	<b>0.11</b>	0.23	1.21	0.17	0.09	
<a href="#">Interest Coverage</a>						1.8
	--	-26	<b>46.9</b>	-17.1	116.5	
						Market <sup>3</sup>
Per Share Data (\$)	Dell Computer	<a href="#">Hewlett-Packard</a>	<a href="#">IBM</a>	<a href="#">Sun Microsystems</a>	Industry <sup>2</sup>	Market <sup>3</sup>
Revenue Per Share	12.38	16.19	<b>47.72</b>	3.95	12.12	21.34
Fully Diluted Earnings Per Share						0.45
from Total Operations	0.69	-0.26	<b>2.79</b>	-0.16	0.21	
Dividends Per Share					0	0.41
	0	0.4	<b>0.58</b>	0		
Cash Flow Per Share					0.42	1.83
	0.8	0.18	<b>6.06</b>	0.16		
Working Capital Per Share					1.42	0.02
	0.09	<b>3.75</b>	2.44	0.87		

Long-Term Debt Per Share					0.24	10.77
	<b>0.2</b>	2.09	9.6	0.46		
Book Value Per Share					2.86	9.89
	1.76	11.91	<b>12.63</b>	3.13		
Total Assets Per Share					6.66	56.61
	5.43	23.24	<b>49.7</b>	5.27		
<b>Growth</b>	Dell Computer	<a href="#">Hewlett-Packard</a>	<a href="#">IBM</a>	<a href="#">Sun Microsystems</a>	Industry <sub>2</sub>	Market <sup>3</sup>
12-Month Revenue Growth	-1.60%	<b>5.20%</b>	-8.80%	-22.90%	-13.00%	2.60%
12-Month Net Income Growth					1.30%	-37.60%
	<b>25.50%</b>	-100.00%	-39.30%	-100.00%		
12-Month EPS Growth					50.00%	0.00%
	<b>23.20%</b>	-100.00%	-38.00%	-100.00%		
12-Month Dividend Growth					--	28.10%
	--	<b>25.00%</b>	7.40%	--		
36-Month Revenue Growth					-15.90%	10.10%
	<b>10.50%</b>	2.80%	-2.20%	-1.20%		
36-Month Net Income Growth					--	-20.60%
	<b>-3.90%</b>	--	-10.30%	--		
36-Month Dividend Growth					--	-4.90%
	--	5.20%	<b>11.70%</b>	--		

*Trend Analysis*

Period	Year End 01-Feb-02	Year End 02-Feb-01	Year End 28-Jan-00	Year End 29-Jan-99	Year End 01-Feb-98
Net Sales in \$M	31,168.0	31,888.0	25,265.0	18,243.0	12,327.0
<b>PROFITABILITY RATIOS:</b>					
P/E	56.8	20.7	77.6	63.4	29.3
Gross Pr. Margin	17.7%	20.2%	20.7%	22.5%	22.1%
Net Pr. Margin	5.6%	10.0%	9.7%	11.4%	11.1%
Oper. Exp/Sales	94.3%	91.6%	91.0%	88.8%	89.3%
Oper. Profit/Sales	5.7%	8.4%	9.0%	11.2%	10.7%
ROA	9.2%	16.4%	14.5%	21.2%	22.1%
ROE	26.5%	39.8%	31.4%	62.9%	73.0%
<b>ASSET MANAGEMENT RATIOS:</b>					
Collection Period	32.4	31.5	34.0	35.8	35.4
Inventory Turn.	4.8	5.7	6.0	6.5	9.2
Days Inventory	4.8	5.7	6.0	6.5	9.2
Working Capital Turnover	87.1	10.8	10.2	8.6	10.1
Fixed Asset Turn.	37.7	32.0	33.0	34.9	36.0
TAT	2.3	2.3	2.2	2.7	2.9
<b>LIQUIDITY RATIOS:</b>					
Current Ratio	1.0	1.4	1.5	1.6	1.5
Quick Ratio	1.0	1.4	1.4	1.5	1.4
Sales/Receivables	11.8	11.0	9.7	8.7	8.3
<b>DEBT MANAGEMENT RATIOS:</b>					
Debt Ratio	0.7	0.6	0.5	0.7	0.7
Debt/Equity	1.9	1.4	1.2	2.0	2.3
Long Term Debt/Equity	0.1	0.1	0.1	0.2	0.0
Current Debt/Equity	85.0%	84.2%	84.2%	81.1%	90.7%

### *Industry Comparison*

Dell's current ratio of 1.03 is lower than the industry however, the company is still better able to pay off its short-term debt. The reason that the industry's ratio is higher is because of their excessive amounts of inventory. The company's total debt to equity ratio is .11, while the industry's is .42. Dell uses less debt compared to others in their industry. Dell also has better operating profitability than the rest of the industry. This shows that they are better able to control operating expenses relative to their sales. Dell's net profit margin of 5.75% over the last 12 months is also better than the industry, which has a net profit margin of 4.20% over the last 12 months. This shows that the company is better able to earn a return after meeting its interest and tax obligations. The company's price to book ratio is a little more than double that of the industry's, which shows the difference between the book values of their assets and liabilities. Finally, the ratios show that Dell's management is more effective than others in the industry. Their return on assets over the last 12 months of 13.69 is more than double that of the industry's. Their return on investments in assets after covering their operating expenses, interest, and tax obligations is greater than the industry's. Finally, the company's return on equity of 39.19 over the last 12 months is much greater than the industry's return on equity of 21.50. This shows that Dell's shareholders earned a greater return on their equity invested than the industry. Dell's asset turnover is 2.38 while the industry's is 1.46. Dell is better utilizing its assets to produce revenues than others in the industry. Dell is generating about \$2.38 in sales for each dollar invested in assets while the industry is generating \$1.46 in sales for each dollar invested in assets. Dell's 12-month net income growth and 12-month EPS growth are both over 20%, while all of the other three companies are in the negative. Dell has also exceeded the other three companies in the

36-month revenue growth category. After looking and comparing the ratios of Dell and its three main competitors, H-P, IBM, and Sun Microsystems, we can see that Dell doesn't only stand on solid ground when you compare it to the industry but also against its top three competitors.

### **Company to Company Comparison**

We have already compared Dell against the industry as far as ratio analysis is concerned. Now we will go ahead and see that the company stacks up fairly better than its top three competitors Hewlett-Packard, IBM, and Sun Microsystems. As far as the liquidity ratios are concerned, Dell's is 1.03. It's lower than all three competitors but it's due to the fact that Dell's inventory is kept at a minimum. Inventory levels can account for a higher current ratio. Dell's days cost of goods sold in inventory is only 4 which is a little more than 8 times less than the next closest competitor IBM. Dell's debt/equity ratio of .11 is better than any of the three direct competitors. This shows that the company uses less debt than H-P, IBM, or Sun Microsystems. Dell has better operating efficiency than the other three companies, as it is the leader in every operations category. This attributes to the company's competitive cost structure. Their asset turnover of 2.4 is greater than any of the other three companies. Dell is earning about \$2.40 for each dollar invested in their assets while H-P and IBM only earn \$1 for each dollar invested. Sun Microsystems earns even less. Dell's management team is also more effective than H-P's, IBM's, and Sun Microsystem's. Dell is the leader in return on assets, return on invested capital in assets, and return on equity when compared to the other three companies. Dell's shareholders earned a greater return on their equity invested than any of the other three companies. Finally, Dell has grown more and is also expected to grow more than any of the other three companies.

### Share Data

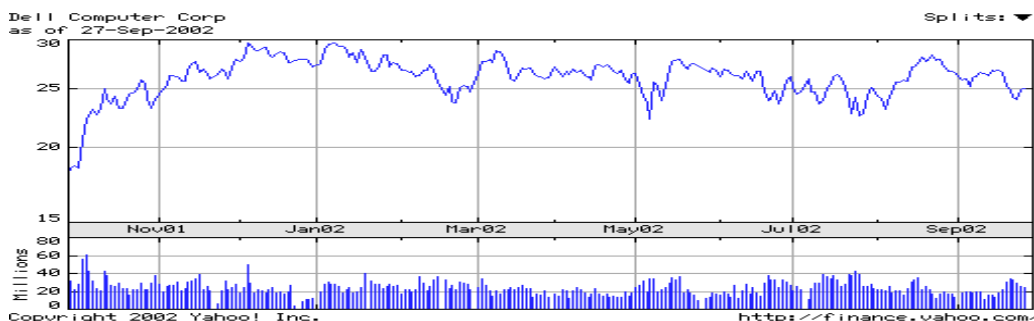
Market Cap. (in bil)	75.21
Float	88%
Avg. Daily Vol. (in mil.)	23.2
Institutional Ownership	55.20%
S & P 500 Weight	.83

As far as insider trading is concerned, over the last 3 months, there have been 7 sells and 1 buy. Current broker recommendations are 3 strong buys, 13 buys, and 7 holds from 23 security analysts.

### Comparables

Company	Sales (\$ mil.)	Net Income	Sales Growth	Earnings Growth	Forecasted P/S
DELL	31,168.0	1,246.0	(1.6%)	21.96%	12.38
IBM	85,866.0	7,723.0	(9.5%)	(38.6%)	48.08
Sun Micro	12,496.0	(628.0)	(31.5%)	(100%)	3.85
HP	45,226.0	(2,029.0)	5.2%	(100%)	16.19

### Price Chart



## Valuation

### The Price of Risk (CAPM) Analysis

The stock's required rate of return is based on relative analysis of the returns being offered by competing investments, taking into account the respective risk involved. The notion that the risk of competing investments can be (1) measured and then (2) priced comes from the Capital Asset Pricing Model, a theoretical concept refined in the 1960s. The logic of the CAPM is simple. The required return of any stock should equal the rate of return on a relatively riskless investment, such as U.S. government bond, plus a premium for the added risk. In this calculation we will be taking into consideration Beta, which is by itself a mathematical calculation involving a comparison of the stock's historical returns to the market's. In Dell's case beta of 1.8 implements a movement of the price of the stock to one and one-eighth times the movement of the market and vice versa. A stock's beta is only a measure of its past sensitivity to market moves. For any stock, beta's applicability as a predictor of future price sympathy with the market is limited.

$$k = \text{Risk Free Rate} + \text{Beta} [\text{Expected Market Return} - \text{Risk Free Rate}]$$

$$\text{In our case: } 4.02 + 1.8 [12.12 - 4.02] = 18.6$$

Where: 10 year Bond rate = 4.02%

Expected Market return\* = 12.12%

The company's current Beta of 1.8 was obtained from the wall street journal publication.

Note\*: Historically the market rate of return of the S & P 500.

Taking both of these points into consideration,  $k = 18.6$

**EPS (trailing):**

$$\frac{\text{Earnings}}{\text{\# of Shares}} = \frac{1.84 \text{ Bil}}{2.59 \text{ Bil}} = \underline{\underline{.71}}$$

**Next year projected EPS:**

$$\text{Assume 18\% growth rate: } .71(1.18) = \underline{\underline{.83}}$$

**Current P/E ratio:** 43

**Statistical analysis of the Dell company's**

The following analysis has been conducted for the purpose of predicting Dell Company's revenues. It can be a useful tool to the valuation of the company and the analysts of the fund, because it provides a framework for forecasting trends.

**Methodology:**

The continuous data for the analysis is time series and covers quarterly data from Q1/1997 to Q3/2002. Regression analysis will be used to test the hypothesis. The sources of secondary data were compiled from websites. The dependent variable is Dell's revenues. The samples of independent variables used in the regression analysis are: Interest Rate, Seasonality, and GDP.

The reasons why we chose GDP, seasonality and Interest rates are:

- When the economy grows businesses invest in technology infrastructure and computer systems whereas the opposite is also true. When the economy is performing poorly, individual consumers do not purchase computers and businesses cut staff and budget therefore, they do not invest in computer systems and as a result the company's revenues decrease.
- Interest rates are also indicative of the movements in the economy. Fiscal

policy is used to stimulate the economy at periods of recession. Consequently, strong economy means stronger sales whereas interest rate cuts are indicative of recessionary periods that result in weaker sales.

- Seasonality will be tested as to whether it plays an important role in the forecasting of revenues based on its correlation to the revenues and its significance in the regression analysis.

The hypothesis to be tested is based on the assumption that there is a moderate negative correlation between revenues, and Interest rates but a strong positive correlation between revenues and GDP.

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
REV	23	2412.00	9144.00	5953.8261	2183.1730
GDP3	23	8016.39	9472.00	8867.8502	450.2409
INT	23	1.72	6.94	4.9283	1.6156
Valid N (listwise)	23				

**Correlation Matrix**

		REV	GDP	INT
REV	Pearson Correlation	1.000	.973	-.470
	Sig. (2-tailed)	.	.000	.024
	N	23	22	23
GDP	Pearson Correlation	.973	1.000	-.485
	Sig. (2-tailed)	.000	.	.022
	N	22	22	22
INT	Pearson Correlation	-.470	-.485	1.000
	Sig. (2-tailed)	.024	.022	.
	N	23	22	24

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table two presents the regression analysis of the effect that the Interest rate, and GDP have on the company's revenues.

<b>Table 2</b>	<b><u>Regression Results:</u></b>	
Equation 1	Dell = -35002 - 39 * Int. Rate + 5 * GDP	
	(t)**	(t)***
	r=-.47	r=.97
	2	
	r =94.2	F=163.45
*** Statistically significant at .01		
** Statistically significant at .05		

This model is useful for both explanatory and predictive purposes. This research explains the upward or downward movements in Dell's revenues.

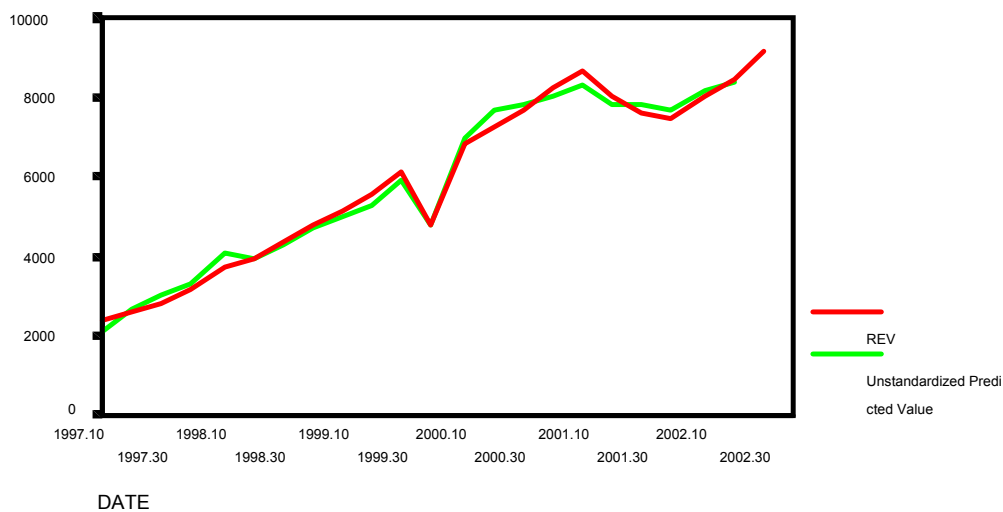
The correlation coefficient between the dependent and the independent variables indicates a moderate negative correlation between revenues and Interest rates (-.47), and a strong positive correlation with GDP (.97).

Table 2 presents SPSS output for stepwise regression equation with explanatory power of 94.2%, which indicates that 94.2% of the variation in revenues can be explained by or attributed to the variation in the, GDP, and Interest rates. More specifically and in support of the hypothesis, the statistically significant regression coefficients indicate that with a constant of -35002, for each additional increase in the GDP revenues increase by \$5. For each additional increase in the interest rates, revenues decrease by \$39 on average. Finally, even though a regression analysis was performed to include seasonality, that variable was eliminated as it was not statistically relevant and therefore, revenues are not affected by regular moves in the calendar (seasonality).

The entire equation is statistically significant and a good indicator of that is the F statistic, which is equal to 163.45.

In conclusion, the relatively high explanatory power of the equation indicates the strength of the predictive power of the model. The outcome of this study can be a useful tool in predicting the company's revenues and the results will be used as a basis in the valuation that follows.

- Based on the results of the equation the revenue for the Q42002 is computed to be \$9,488.
- Using the model to predict revenues a year from now the equation gives \$37,448.



## Forecasting EPS

$$\text{EPS} = (\text{S} \times \text{NPM})/\#\text{sh}$$

$$S_1 = (31168)(1.18) = \$36778$$

$$\text{EPS}_1 = (37536) (.057)/2589 = \$0.81$$

Suppose we expect DELL to have a P/E of 43 next year, which is historical P/E rate of the sector.

$$P_1 = \$0.81 \times 43 = \$34.83$$

On the other hand, assuming that the economic recovery will be more substantial then:

$$\text{EPS} = (\text{S} \times \text{NPM})/\#\text{sh}$$

$$S_1 = (31168)(1.22) = \$38024$$

$$\text{EPS}_1 = (38024) (.057)/2589 = \$0.84$$

Suppose we expect DELL to have a P/E of 43 next year.

$$P_1 = \$0.84 \times 43 = \$36.12$$

From the regression results:  $(37448)(.057)/2589 = \$0.83$

- **Dell Price Target - PE "multiple"**

### **The stock price in 1-2 years.**

Investors fix targets for most stocks by estimating future earnings per share and then applying PE "multiple". Companies with the most consistent earnings history or strongest growth prospects receive the highest P/E multiples. In calculating price targets for the current and next fiscal year apply the stock's current multiple to the average estimate.

<b>Fiscal Year</b>	<b>Est. Low/High Price Range</b>	<b>Avg. Est. Price</b>
12/2002		\$30.53
12/2003	\$34.83-\$36.12	\$35.69
Dell current price:		29.98
Dell current multiple (P/E):		43
Trailing 12 months EPS		.71
Dell average 12/2003 estimate:		.83
Dell low 12/2003 estimate:		.81
Dell high 12/2003 estimate:		.84

The results of the above analysis are similar to the regression that follows and that supports further the validity of the model's results.

**Discounted Cash Flow:**

Trailing EPS = .71

Earnings Growth for next 5 years = 18%

EPS after 5 years =  $.71(1.18)^5 = 1.62$

Assume P/E after 5 years remains the current P/E of 43

Price after year 5 =  $\$1.62 \times 43 = \$69.66$

We assume that 18.6% return on our investment is adequate according to the CAPM results, over the next 5 years and we buy the stock at:

$\$69.66/1.186^5 =$

$\$69.66/2.34 = \underline{\$29.76}$

The price of the stock as of the close of 11/01/02: **\$29.98**

- **Statistical analysis of the Dell company's stock price.**

**Introduction:**

This research provides analysis of the Dell Company's stock price.

**Methodology:**

The continuous data for the analysis is time series and covers the periods from 01/1991 to 10/2001. The sources of data appear as footnotes and regression analysis will be used to test the hypothesis. The sources of secondary data were compiled from websites. The dependent variable is Dell's stock price. The samples of independent variables used in the regression analysis are: Interest Rate, Seasonality, and GDP. The reasons why we chose GDP and Interest rates are: When the economy grows businesses invest in technology infrastructure and computer systems whereas the opposite is also true. Interest rates are also indicative of the movements in the economy. Fiscal policy is used to stimulate economy at periods of recession. Therefore both economic growth and interest rate could affect the company's stock price. The hypothesis to be tested is based on the assumption that there is a moderate negative correlation between the stock price, and Interest rates but a strong positive correlation between the stock price and GDP. At the same time seasonality will be tested as to whether it plays an important role in the forecasting of the stock price based on its correlation to the stock price and its significance in the regression analysis.

**Results:**

Descriptive statistics for Dell’s stock price are presented in table one.

<b>Table 1</b>		<b>Descriptive Statistics</b>				
<b>Descriptive Statistics</b>		N	Minimum	Maximum	Mean	Std. Deviation
PRICE		114	4.63	111.00	39.4187	26.4919
Int. Rate		114	4.40	7.80	5.9404	.9007
GDP		114	5397.20	8700.30	6878.3211	981.6921
FEB		114	.00	1.00	7.895E-02	.2708
MAR		114	.00	1.00	7.895E-02	.2708
APR		114	.00	1.00	7.895E-02	.2708
MAY		114	.00	1.00	7.895E-02	.2708
JUN		114	.00	1.00	8.772E-02	.2841
JUL		114	.00	1.00	8.772E-02	.2841
AUG		114	.00	1.00	8.772E-02	.2841
SEP		114	.00	1.00	8.772E-02	.2841
OCT		114	.00	1.00	8.772E-02	.2841
NOV		114	.00	1.00	8.772E-02	.2841
DEC		114	.00	1.00	7.895E-02	.2708
Valid N (listwise)		114				

Table two presents the regression analysis of the effect that the Interest rate, and GDP have on the stock price.

<b>Table 2</b>		<b><u>Regression Results:</u></b>	
Equation 1	Dell = -126.6 - .65 * Int. Rate + .018 * GDP	(t)***	(t)***
		r=-.46	r=.96
	2		
	r=85.8	F=334	

\*\*\* Statistically significant at .01

\*\* Statistically significant at .05

This model is useful for both explanatory and predictive purposes. This research explains the upward or downward movements in the stock price of the Dell Company.

The correlation coefficient between the dependent and the independent variables indicates a moderate negative correlation between the stock price and Interest rates (-.46), and a strong positive correlation with GDP (.96).

Table 2 presents SPSS output for stepwise regression equation with explanatory power of 85.8%, which indicates that 85.8% of the variation in the stock price can be explained by or attributed to the variation in the, GDP, and Interest rates. More specifically and in support of the hypothesis (stated in part II, methodology) the statistically significant regression coefficients indicate that with a constant of -126.6, for each additional increase in the GDP the stock price increases by \$.018. For each additional increase in the interest rates, the stock price decreases by \$.65 on average. Finally, even though a regression analysis was performed to include seasonality, that variable was eliminated as it was not statistically relevant and therefore, the stock price is not affected by regular moves in the calendar (seasonality).

The entire equation is statistically significant and a good indicator of that is the F statistic, which is equal to 334.

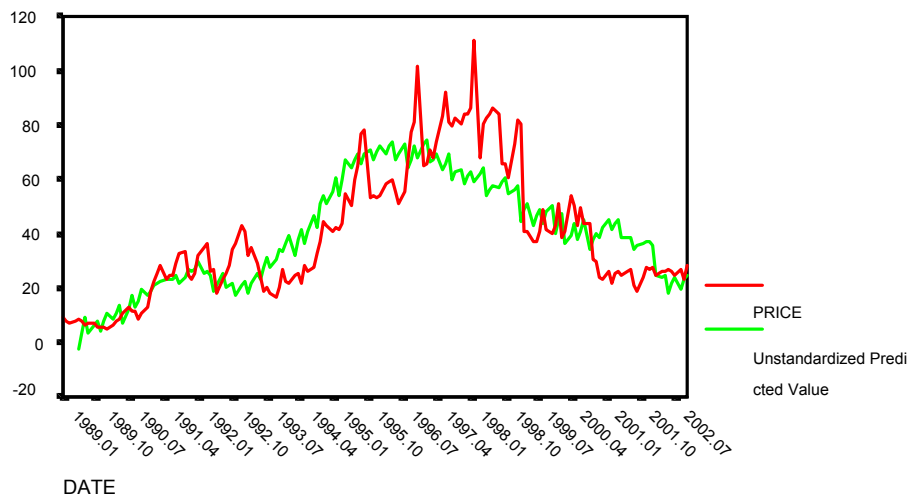
The histogram of the residuals (Appendix) appears to be generally normally distributed and since the residual analysis indicates that the residuals are generally normally distributed the equation is good.

In conclusion, the relatively high explanatory power of the equation indicates the strength of the predictive power of the model. The outcome of this study can be a useful tool in predicting the company's stock price.

- Based on the results of the equation the stock price is computed to be \$29.99, indicating that the stock is fairly valued.

- Using the model to predict the stock price a year from now the equation gives a price of \$36.05.
- Using the model to predict the stock price 5 years from now the equation gives a price of \$69.84.

### TSPLOT: Dell Stock Price Actual VS Predicted



**Multiple Analysis (Compared with Hewlett-Packard, IBM, and Sun Microsystems)**  
**Relative Multiple Equity Valuation**

Relative Multiples are used to determine if a stock is overvalued or undervalued. These multiples are used in conjunction with the intrinsic value derived using the DCF model. The key to this multiple is to understand the key driver/ companion variable. We analyze DELL when using this methodology utilizing the price to earnings (PE), price to book (PBV), and price to sales (PSR) ratios.

The price of Dell's stock price on November 15, 2002 was \$29.82. This price will be used to determine the actual PE, PBV, PSR ratios.

**PE Ratio Analysis**

***PE Actual Data***

Symbol	Current Prices	Low	High	52 Wk High	52 Wk Low	Market Cap	2003 EPS	P/E Ratio	# Shares Out
DELL	29.82	29.49	30.26	30.52	21.90	78,057,837.88	0.83	35.93	2,590,000,000
HPQ	16.90	17.10	17.50	24.12	10.80	52,851,391.12	1.16	14.57	3,051,466,000
IBM	80.01	80.40	82.89	126.40	54.00	140,086,625.64	4.32	18.52	1,694,323,000
SUNW	3.72	3.40	3.43	14.72	2.34	10,252,774.35	0.11	33.82	3,135,000,000
S&P500	-	-	-	-	-	-	-	24.75	0
Industry								32.39	

\*Prices as of 11/15/2002

*PE Theoretical Data*

Price	36.05
EPS	0.83
P/E	43.43

We calculated a theoretical PE ratio based on regression model with intrinsic value of \$36.05 for next year. Based on the results, it can be inferred that DELL is undervalued and there is still margin for price to increase towards the intrinsic value. When comparing Dell's actual P/E to the actual P/E of its competitors we see that the

Company's EPS is somewhat lower, thus driving the ratio higher. Key Driver of PE ratio is EPS growth, which is 18.0% for DELL. However, the actual S&P 500 PE ratio is 24.75, which is lower than DELL actual PE ratio of 35.93. It indicates to us that the Dell's premium multiple, relative to the rest of market, has in part been earned by the company's ability to capture the lion's share of industry growth in key technology segments. This has become even more pronounced recently, as the PC market slump and rapidly declining component cost environment have wreaked havoc on other PC vendors' bottom lines. During this turmoil, not only has Dell remained profitable, but it has also posted large market share gains. In addition, the company has managed to award investors with relatively stable earnings during the economic downturn. We also believe the market has accorded DELL a premium multiple for its excellent cash management. Quarter after quarter for the past three years, Dell has reported an increasingly negative new working capital. This contributes to the company's remarkable return on invested capital, which consistently reaches triple-digit levels.

At an estimated fair value of \$36.05, DELL would trade at a P/E of 43 times our calendar 2003 EPS projection. We consider this reasonable in light of the company's competitive advantage and its consistent execution during the current economic downturn.

## Price to Book Value

### PBV Actual Data

Symbol	Current Price	P/BV	ROE	Beta	CE	ROE - CE
DELL	29.82	16.24	55.9%	1.83	16.24%	39.7%
HPQ	16.90	1.34	15.4%	1.36	12.48%	3.0%
IBM	80.01	5.95	35.2%	1.36	12.48%	22.7%
SUNW	3.72	1.27	16.9%	2.43	21.04%	-4.2%
S&P500		4.44	21.9%	1.00	9.60%	12.3%
Industry		7.59	35.3%	1.53	13.84%	21.4%

### *Theoretical PBV Ratio*

<b>DCF Value/Book Value</b>
19.63

### **Footnote:**

(Actual)

ROE – CE = Net ROE

BV, PBV and ROE information for all companies are from [www.multexinvestor.com](http://www.multexinvestor.com) .

Industry PBV and ROE are from [www.multexinvestor.com](http://www.multexinvestor.com).

Cost of Equity (CE) for all companies was calculated from  $CE=R_f + \text{Beta}*(R_p)$  where  $R_f=1.60\%$  and  $R_p=8.00\%$ .

Comparing Dell's actual Price to Book Value Ratio (PBV) of 16.24 to its theoretical PBV of 19.63, we see that our DCF valuation leads us to state that the Company is undervalued. We then compared the actual PBV of Dell with its competitors. Among the major competitors, Dell was found to have the highest ratio of 16.24. In order to determine why this company has such high PBV ratio we had to look at the companion variable – Return on Equity (ROE). ROE for DELL is higher than the cost of equity thereby creating shareholder value. If shareholder value is created then the company is valued at a premium. Investors are always willing to pay for a stock with a high PBV and also have a high ROE. We also may observe that when Dell's PBV compared relatively to the actual S&P 500 market PBV as well as within its own industry is overvalued. This reflects the high expectations investors have for this sector.

## Price to Sales

### PSR Actual Data

Symbol	Current Price	PSR
DELL	29.82	2.27
HPQ	16.90	0.83
IBM	80.01	1.46
SUNW	3.72	0.78
S&P500		1.88
Industry		0.92

### Theoretical PSR

DCF Value/(Sales/Share)
2.74

### Footnote:

(Actual)

For all companies  $PSR = Price / (2002 \text{ Sales} / \text{Shares})$ .

NPM for all companies and industry was obtained from [www.multexinvestor.com](http://www.multexinvestor.com).

We calculated a theoretical Price-to-Sales ratio (PSR) based on the intrinsic value obtained from regression analysis model of \$36.05. This results in a theoretical 2.74 PSR. Compared with the actual PSR of 2.27, Dell is again undervalued.

In our judgment, these factors explain why Dell's P/E multiple has exceeded the average for its peer group in the past. We expect the market to continue to reward Dell's market share gains, earnings stability, and excellent cash management with a premium. We believe the stock presents an attractive long-term risk/reward profile, based on Dell's current price relative to its historical trading range and its peers.

### Valuation Results

PRICE: DELL closed on 11/8/2002 at \$29.98 per share.

VALUE: DELL has a Value of \$29.99 per share (based on the regression analysis). It is a measure of what a stock is currently worth. Value is also based upon earnings, earnings growth rate, dividend payments, dividend growth rate, and financial performance.

SAFETY: DELL is very safe from the perspective of, consistency of financial and operating performance, stock price appreciation history, and price volatility. Debt to equity ratio, capitalization, sales volume, business longevity and position relative to competitors.

### **Dell's Financial Condition**

Dell ended the first quarter of 2002 with almost \$4 billion in cash and short-term investments. In addition to this, U.S. government and corporate debt make up about 38% of the company's \$4.2 billion in long-term investments. These could be considered just as good as cash equivalents because of their high liquidity. Another reason for Dell's big source of cash is the company's impressive working capital management.

The company's strong operations results, working capital management, and minimal capital expenditures are the reasons for the company's outstanding return on invested capital. After the second quarter of 2002, the company's ROIC surged to 316% from 91% in the prior year. Dell can continue to earn very high ROIC as long as they keep refining their direct distribution model and get consistent operating results.

### **Risks**

There are many risks and factors that can have an affect on Dell's business, many of which are out of the company's control.

First are the general **economic and industry conditions**. As the economic or industry conditions worsen, customers or potential customers may delay or not invest in computer systems, which can have an adverse affect on the company and its financial

performance. Similarly, the effect of acts of terrorism or other conflict could affect the economy, the level of demand for the Company's products and services, and the company's ability to manage its supply and delivery logistics in such an environment, and could cause damage or disruption to the Company, its suppliers, distributors or customers, any of which could have a material adverse effect on the Company's business. Expectations indicate that worldwide economic conditions will improve. However, if such improvements do not occur and economic conditions continue to worsen, or if economic conditions do not improve as rapidly as expected, the Company's revenue and earnings could be negatively affected.

**Competition** is another risk that Dell faces. There is aggressive competition in all aspects of the industry. Dell competes on the basis of price, technology availability, quality, reliability, service, and support. The company tries to maintain profitability by reducing operating expenses and by continuing to leverage its lean inventory model to rapidly realize the benefits of component price declines.

The Company believes that its cost structure and business model creates a competitive advantage over its competitors. However, if its competitors alter their cost structure or business model, that could affect the Company's current competitive advantage.

**International activities** also affect the company's business. Sales outside the United States accounted for approximately 35% of the Company's revenues (2002). The Company's future growth rates and success are dependent on continued growth and success in international markets. When operating internationally, Dell is subject to numerous risks and uncertainties, including the country's economic conditions, political

instability, changes in their regulatory environment, trade protection measures, tax laws, and foreign currency exchanges.

**Seasonal Trends.** The Company experiences some seasonal trends in the sale of its products. For example, sales to governments (particularly U.S. federal sales) are often stronger in the Company's third quarter, European sales are often weaker in the third quarter and consumer sales are often stronger in the fourth quarter. Historically, the net result of seasonal trends has not been material relative to the Company's overall results of operations, and that is also verified by the results of the regression analysis.

Another risk that Dell faces like every other company in the industry is **technological changes** and product transitions. The technology industry is characterized by continuing improvements, which results in the frequent introduction of new products and short product life cycles. Continuing technological advancement, which is a significant driver of customer demand, is largely beyond the control of the Company.

**Product transitions** are another big risk because they present some of the greatest executional challenges and risks for any company in the industry.

**Inventory management/supplies** is another risk that Dell may face. There can be disruptions in the availability of components, which can affect the company's short-term performance, since the company due to its direct business model operates with reduced inventories. The Company's financial success has been due in part to its asset management practices and there is a great reliance on the suppliers that the company deals with. There may also be risks associated with suppliers such as defective parts, which can ruin the company's reputation and an increase in the costs of components.

This is a concern for Dell because they have several single-sourced suppliers rather than having a different option of suppliers.

Another risk the company faces is the risk on **financial instruments**. Some of the financial instruments and contracts that the company utilizes may involve some form of market and credit risk, which would also affect the financials of the company. The Company utilizes derivative instruments to hedge its exposure to fluctuations in foreign currency exchange rates and interest rates. In addition, the Company utilizes equity instrument contracts to execute repurchases of its common stock under its Board-authorized share repurchase program.

The Company is exposed to a variety of risks, including foreign currency exchange rate fluctuations and changes in the market value of its investments.

**Foreign Currency Hedging Activities.** The Company's objective in managing its exposure to foreign currency exchange rate fluctuations is to reduce the impact of adverse fluctuations on earnings and cash. The Company utilizes foreign currency option contracts and forward contracts to hedge its exposure on forecasted transactions and firm commitments in most of the foreign countries in which the Company operates. The principal currencies hedged during fiscal 2002 were the British pound, Japanese yen, Euro and Canadian dollar.

Based on the Company's foreign currency exchange instruments outstanding at February 1, 2002, the Company estimates a maximum potential one-day loss in fair value of approximately \$20 million, using a Value-at-Risk ("VAR") model. (Assuming normal market conditions and a 95% confidence level). The Company used a Monte Carlo simulation type model that valued its foreign currency instruments against a thousand

randomly generated market price paths. Forecasted transactions, firm commitments, receivables and accounts payable denominated in foreign currencies were excluded from the model. Additionally, as the Company utilizes foreign currency instruments for hedging forecasted and firmly committed transactions, a loss in fair value for those instruments is generally offset by increases in the value of the underlying exposure. As a result of the Company's hedging activities, foreign currency fluctuations did not have a material impact on the Company's results of operations and financial position during fiscal 2002, 2001, and 2000.

**Cash and Investments.** The Company diversifies its investment portfolio by investing in multiple types of investment-grade securities and through the use of different investment brokers. A 100 basis point increase or decrease in interest rates would result in a decrease or increase of approximately \$100 million, respectively, in the fair value of the investment portfolio.

**Long-term Debt and Interest Rate Risk Management.** The Company entered into interest rate swap agreements converting the Company's interest rate exposure from a fixed rate to a floating rate basis to better align the associated interest rate characteristics to its cash and investments portfolio. According to the regression a 100bp change in the interest rates could impact the stock price by +/- 1.75% on average.

Another factor that may affect the company's success is **patent rights**. Dell is largely dependant on its ability to obtain licenses and intellectual property developed by others. If Dell or its suppliers are unable to obtain the necessary technology licenses, the company could be prohibited from marketing products.

Another risk that the company faces is from its **equity investments**. Dell makes strategic equity investments primarily in privately held technology companies. These companies are typically early-stage ventures with either unproven business models, products that are not yet fully developed or products that have not yet achieved markets acceptance. These investments are very risky and also may affect Dell's financial performance.

**Strength of Infrastructure.** The Company's continued success and profitability partly depends on its ability to continue to improve its infrastructure (particularly personnel and information systems) in order to increase operational efficiencies.

**Environmental Laws and Regulation.** Certain of the Company's operations are subject to regulation pursuant to various federal, state and international laws governing the environment. The Company does not anticipate that such laws will have a material adverse effect on the Company in the future.

**Legal Proceedings.** The Company is subject to various legal proceedings and claims arising in the ordinary course of business. The Company's management does not expect that the results in any of these legal proceedings will have a material adverse effect on the Company's financial condition, results of operations or cash flows.

### **Recommendation**

We recommend that we allocate 2% of the maximum 3% of the funds available in the Dell Computer Corporation. This should be a sufficient amount to invest in the long run to get the return desired. If we were to invest 1%, this may not be enough to get the maximum return potential. Once the economy and the tech sector pick up, we expect Dell to return maximum value to its shareholders, but it's hard to say when this will occur. On

the other hand, the economy and the industry being the way that it is, we feel that allocating the maximum of 3% might be risky at this point. 2% is a conservative amount to invest, while giving us the return we want in the long run. With Dell's current price of about \$29.98 we can buy about 650 shares of the stock in order to achieve the desired return.

### ***Conclusion***

Overall, the whole computer industry has been hard hit by the recent downturn in the economy. Many companies have seen their sales and earnings decrease. Many companies have laid people off and have had to restructure many of its operations. Dell however is one of the few companies who have survived without getting hit to hard during this time. Their management, strategies, and way of doing business have prevented them from getting hit as hard as other companies. As the economy recovers, Dell will prosper and perform better than its competitors because they are financially in a position to get back to where they were a couple of years ago and eventually improve on its current position in the market.

## V. Appendix

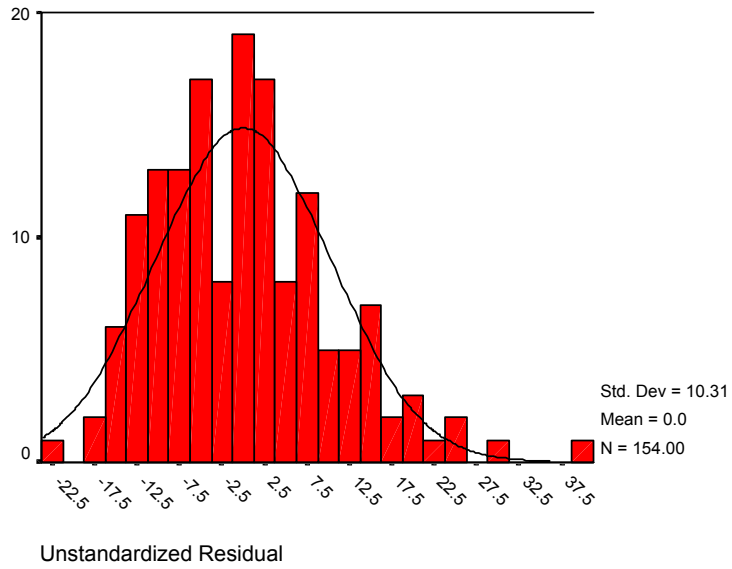
Annual Income Statement (Values in Millions)	1/2002	1/2001	1/2000	1/1999	1/1998
Sales	31,168.0	31,888.0	25,265.0	18,243.0	12,327.0
Cost of Sales	25,422.0	25,205.0	19,891.0	14,034.0	9,538.0
Gross Operating Profit	5,746.0	6,683.0	5,374.0	4,209.0	2,789.0
Selling, General & Admin. Expense	3,236.0	3,675.0	2,761.0	2,060.0	1,406.0
Other Taxes	0.0	0.0	0.0	0.0	0.0
EBITDA	2,510.0	3,008.0	2,613.0	2,149.0	1,383.0
Depreciation & Amortization	239.0	240.0	156.0	103.0	67.0
EBIT	2,271.0	2,768.0	2,457.0	2,046.0	1,316.0
Other Income, Net	-58.0	531.0	188.0	38.0	52.0
Total Income Avail for Interest Exp.	1,731.0	3,194.0	2,451.0	2,084.0	1,368.0
Interest Expense	0.0	0.0	0.0	0.0	0.0
Minority Interest	0.0	0.0	0.0	0.0	0.0
Pre-tax Income	1,731.0	3,194.0	2,451.0	2,084.0	1,368.0
Income Taxes	485.0	958.0	785.0	624.0	424.0
Special Income/Charges	-482.0	-105.0	-194.0	0.0	0.0
Net Income from Cont. Operations	1,246.0	2,236.0	1,666.0	1,460.0	944.0
Net Income from Discont. Oper.	0.0	0.0	0.0	0.0	0.0
Net Income from Total Operations	1,246.0	2,236.0	1,666.0	1,460.0	944.0
Normalized Income	1,728.0	2,341.0	1,860.0	1,460.0	944.0
Extraordinary Income	0.0	0.0	0.0	0.0	0.0
Income from Cum. Eff. of Acct. Chg.	0.0	-59.0	0.0	0.0	0.0
Income from Tax Loss Carryforward	0.0	0.0	0.0	0.0	0.0
Other Gains (Losses)	0.0	0.0	0.0	0.0	0.0
<b>Total Net Income</b>	<b>1,246.0</b>	<b>2,177.0</b>	<b>1,666.0</b>	<b>1,460.0</b>	<b>944.0</b>

<b>Annual Balance Sheet (Values in Millions)</b>	<b>1/2002</b>	<b>1/2001</b>	<b>1/2000</b>	<b>1/1999</b>	<b>1/1998</b>
<b>Assets</b>					
<b>Current Assets</b>					
Cash and Equivalents	3,641.0	4,910.0	3,809.0	520.0	320.0
Receivables	2,269.0	2,895.0	2,608.0	2,094.0	1,486.0
Inventories	278.0	400.0	391.0	273.0	233.0
Other Current Assets	1,689.0	1,286.0	873.0	3,452.0	1,873.0
<b>Total Current Assets</b>	<b>7,877.0</b>	<b>9,491.0</b>	<b>7,681.0</b>	<b>6,339.0</b>	<b>3,912.0</b>
<b>Non-Current Assets</b>					
Property, Plant & Equipment, Gross	1,438.0	1,534.0	1,140.0	775.0	509.0
Accum. Depreciation & Depletion	612.0	538.0	375.0	252.0	167.0
Property, Plant & Equipment, Net	826.0	996.0	765.0	523.0	342.0
Intangibles	0.0	0.0	304.0	0.0	0.0
Other Non-Current Assets	4,832.0	2,948.0	2,721.0	15.0	14.0
<b>Total Non-Current Assets</b>	<b>5,658.0</b>	<b>3,944.0</b>	<b>3,790.0</b>	<b>538.0</b>	<b>356.0</b>
<b>Total Assets</b>	<b>13,535.0</b>	<b>13,435.0</b>	<b>11,471.0</b>	<b>6,877.0</b>	<b>4,268.0</b>
<b>Liabilities &amp; Shareholder's Equity</b>					
<b>Current Liabilities</b>					
Accounts Payable	5,075.0	4,286.0	3,538.0	2,397.0	1,643.0
Short Term Debt	0.0	0.0	0.0	0.0	0.0
Other Current Liabilities	2,444.0	2,257.0	1,654.0	1,298.0	1,054.0
<b>Total Current Liabilities</b>	<b>7,519.0</b>	<b>6,543.0</b>	<b>5,192.0</b>	<b>3,695.0</b>	<b>2,697.0</b>
<b>Non-Current liabilities</b>					
Long Term Debt	520.0	509.0	508.0	512.0	17.0
Deferred Income Taxes	0.0	0.0	0.0	0.0	0.0
Other Non-Current Liabilities	802.0	761.0	463.0	349.0	261.0
Minority Interest	0.0	0.0	0.0	0.0	0.0
<b>Total Non-Current Liabilities</b>	<b>1,322.0</b>	<b>1,270.0</b>	<b>971.0</b>	<b>861.0</b>	<b>278.0</b>
<b>Total Liabilities</b>	<b>8,841.0</b>	<b>7,813.0</b>	<b>6,163.0</b>	<b>4,556.0</b>	<b>2,975.0</b>
<b>Shareholder's Equity</b>					
Preferred Stock Equity	0.0	0.0	0.0	0.0	0.0
Common Stock Equity	4,694.0	5,622.0	5,308.0	2,321.0	1,293.0
<b>Total Equity</b>	<b>4,694.0</b>	<b>5,622.0</b>	<b>5,308.0</b>	<b>2,321.0</b>	<b>1,293.0</b>
<b>Total Liabilities &amp; Stock Equity</b>	<b>13,535.0</b>	<b>13,435.0</b>	<b>11,471.0</b>	<b>6,877.0</b>	<b>4,268.0</b>
Total Common Shares Outstanding	2.6 Bil	2.6 Bil	2.6 Bil	2.5 Bil	2.6 Bil
Preferred Shares	0.0	0.0	0.0	0.0	0.0
Treasury Shares	0.0	0.0	0.0	0.0	0.0

<b>Annual Cash Flow (in Millions)</b>	<b>1/2002</b>	<b>1/2001</b>	<b>1/2000</b>	<b>1/1999</b>	<b>1/1998</b>
<b>Cash Flow from Operating Activities</b>					
Net Income (Loss)	1,246.0	2,236.0	1,666.0	1,460.0	944.0
Depreciation and Amortization	239.0	240.0	156.0	103.0	67.0
Deferred Income Taxes	0.0	0.0	0.0	0.0	0.0
Operating (Gains) Losses	1,424.0	777.0	1,210.0	455.0	24.0
Extraordinary (Gains) Losses	0.0	0.0	0.0	0.0	0.0
<b>Change in Working Capital</b>					
(Increase) Decr. in Receivables	222.0	-346.0	-394.0	-598.0	-638.0
(Increase) Decr. in Inventories	111.0	-7.0	-123.0	-41.0	16.0
(Increase) Decr. in Other Curr. Assets	0.0	0.0	0.0	0.0	0.0
(Decrease) Incr. in Payables	826.0	748.0	988.0	743.0	638.0
(Decrease) Incr. in Other Curr. Liabs.	-333.0	276.0	341.0	263.0	672.0
Other Non-Cash Items	62.0	271.0	82.0	51.0	-131.0
Net Cash from Cont. Operations	3,797.0	4,195.0	3,926.0	2,436.0	1,592.0
Net Cash from Discont. Operations	0.0	0.0	0.0	0.0	0.0
<b>Net Cash from Operating Activities</b>	<b>3,797.0</b>	<b>4,195.0</b>	<b>3,926.0</b>	<b>2,436.0</b>	<b>1,592.0</b>
<b>Cash Flow from Investing Activities</b>					
<b>Cash Flow Provided by:</b>					
Sale of Property, Plant, Equipment	0.0	0.0	0.0	0.0	0.0
Sale of Short Term Investments	3,425.0	2,331.0	2,319.0	15,341.0	12,017.0
<b>Cash Used by:</b>					
Purchase of Property, Plant, Equipmt.	-303.0	-482.0	-401.0	-296.0	-187.0
Purchase of Short Term Investments	-5,382.0	-2,606.0	-3,101.0	-16,459.0	-12,305.0
Other Investing Changes Net	0.0	0.0	0.0	0.0	0.0
<b>Net Cash from Investing Activities</b>	<b>-2,260.0</b>	<b>-757.0</b>	<b>-1,183.0</b>	<b>-1,414.0</b>	<b>-475.0</b>
<b>Cash Flow from Financing Activities</b>					
<b>Cash Flow Provided by:</b>					
Issuance of Debt	0.0	0.0	20.0	494.0	0.0
Issuance of Capital Stock	295.0	404.0	289.0	212.0	88.0
<b>Cash Used for:</b>					
Repayment of Debt	0.0	0.0	-6.0	0.0	0.0
Repurchase of Capital Stock	-3,000.0	-2,700.0	-1,061.0	-1,518.0	-1,023.0
Payment of Cash Dividends	0.0	0.0	0.0	0.0	-1.0
Other Financing Charges, Net	3.0	-9.0	63.0	0.0	38.0
<b>Net Cash from Financing Activities</b>	<b>-2,702.0</b>	<b>-2,305.0</b>	<b>-695.0</b>	<b>-812.0</b>	<b>-898.0</b>
Effect of Exchange Rate Changes	-104.0	-32.0	35.0	-10.0	-14.0
Net Change in Cash & Cash Equivalents	-1,269.0	1,101.0	2,083.0	200.0	205.0
Cash at Beginning of Period	4,910.0	3,809.0	1,726.0	320.0	115.0
Free Cash Flow	3,494.0	3,713.0	3,525.0	2,140.0	1,404.0
<b>Quarterly Cash Flow (in Millions, Cumulative for FY)</b>					
	<b>7/2002</b>	<b>4/2002</b>	<b>1/2002</b>	<b>10/2001</b>	<b>7/2001</b>
<b>Cash Flow from Operating Activities</b>					
Net Income (Loss)	958.0	457.0	1,246.0	790.0	361.0
Depreciation and Amortization	103.0	51.0	239.0	185.0	125.0
Deferred Income Taxes	0.0	0.0	0.0	0.0	0.0
Operating (Gains) Losses	6.0	23.0	1,424.0	1,179.0	1,034.0
Extraordinary (Gains) Losses	0.0	0.0	0.0	0.0	0.0
<b>Change in Working Capital</b>					
(Increase) Decr. in Receivables	0.0	0.0	222.0	0.0	0.0
(Increase) Decr. in Inventories	0.0	0.0	111.0	0.0	0.0

(Increase) Decr. in Other Curr. Assets	0.0	0.0	0.0	0.0	0.0
(Decrease) Incr. in Payables	0.0	0.0	826.0	0.0	0.0
(Decrease) Incr. in Other Curr. Liabs.	0.0	0.0	-333.0	0.0	0.0
Other Non-Cash Items	380.0	48.0	62.0	610.0	253.0
Net Cash from Cont. Operations	1,447.0	579.0	3,797.0	2,764.0	1,773.0
Net Cash from Discont. Operations	0.0	0.0	0.0	0.0	0.0
<b>Net Cash from Operating Activities</b>	<b>1,447.0</b>	<b>579.0</b>	<b>3,797.0</b>	<b>2,764.0</b>	<b>1,773.0</b>
<b>Cash Flow from Investing Activities</b>					
<b>Cash Flow Provided by:</b>					
Sale of Property, Plant, Equipment	0.0	0.0	0.0	0.0	0.0
Sale of Short Term Investments	2,755.0	1,273.0	3,425.0	2,608.0	1,703.0
<b>Cash Used by:</b>					
Purchase of Property, Plant, Equipmt.	-3,184.0	-55.0	-303.0	-209.0	-145.0
Purchase of Short Term Investments	0.0	-1,266.0	-5,382.0	-4,513.0	-2,662.0
Other Investing Changes Net	0.0	0.0	0.0	0.0	0.0
<b>Net Cash from Investing Activities</b>	<b>-429.0</b>	<b>-48.0</b>	<b>-2,260.0</b>	<b>-2,114.0</b>	<b>-1,104.0</b>
<b>Cash Flow from Financing Activities</b>					
<b>Cash Flow Provided by:</b>					
Issuance of Debt	0.0	0.0	0.0	0.0	0.0
Issuance of Capital Stock	99.0	20.0	295.0	214.0	166.0
<b>Cash Used for:</b>					
Repayment of Debt	0.0	0.0	0.0	0.0	0.0
Repurchase of Capital Stock	-1,230.0	-612.0	-3,000.0	-2,259.0	-1,490.0
Payment of Cash Dividends	0.0	0.0	0.0	0.0	0.0
Other Financing Charges, Net	1.0	0.0	3.0	0.0	13.0
<b>Net Cash from Financing Activities</b>	<b>-1,130.0</b>	<b>-592.0</b>	<b>-2,702.0</b>	<b>-2,045.0</b>	<b>-1,311.0</b>
Effect of Exchange Rate Changes	196.0	37.0	-104.0	-73.0	-108.0
Net Change in Cash & Cash Equivalents	84.0	-24.0	-1,269.0	-1,468.0	-750.0
Cash at Beginning of Period	3,641.0	3,641.0	4,910.0	4,910.0	4,910.0
Free Cash Flow	-1,737.0	524.0	3,494.0	2,555.0	1,628.0

**Graph 1. Histogram of Unstandardized Residuals**



**Correlation Matrix**

		PRICE	TB	GDP	EXCA	EXUK
PRICE	Pearson	1.000	-.460	.926	.883	-.310
	Correlation					
	Sig. (2-tailed)	.	.000	.000	.000	.001
	N	114	114	114	114	114
TB	Pearson	-.460	1.000	-.479	-.357	.176
	Correlation					
	Sig. (2-tailed)	.000	.	.000	.000	.062
	N	114	114	114	114	114
GDP	Pearson	.926	-.479	1.000	.912	-.278
	Correlation					
	Sig. (2-tailed)	.000	.000	.	.000	.003
	N	114	114	114	114	114
EXCA	Pearson	.883	-.357	.912	1.000	-.310
	Correlation					
	Sig. (2-tailed)	.000	.000	.000	.	.001
	N	114	114	114	114	114
EXUK	Pearson	-.310	.176	-.278	-.310	1.000
	Correlation					
	Sig. (2-tailed)	.001	.062	.003	.001	.
	N	114	114	114	114	114

\*\* Correlation is significant at the 0.01 level (2-tailed).

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