

# St. John's University Student Managed Investment Fund

## Investment Research

Equity

### 3M Company (MMM)

March 24, 2004

Rating: BUY

#### Key Statistics

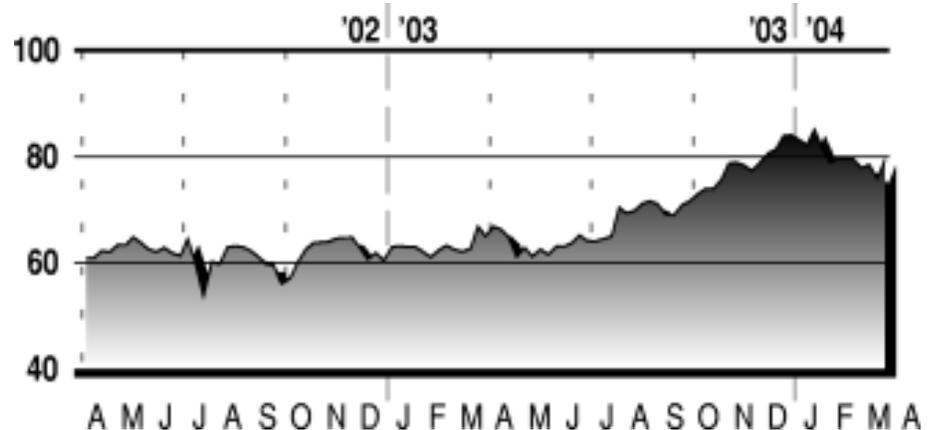
Price:	79.40
52-Wk. High:	86.20
52-Wk. Low:	60.25
Shares Out (.mil):	783.0
Avg. Volume (000):	3,376
Dividend:	1.44
Market Cap (MM):	\$61,316.7

**Keith Denninger**  
kdenn132@hotmail.com

**Brian Bauer**  
bbauer427@optonline.net

**Brian Groves**  
bgroves123@hotmail.com

**Jonathan Shisko**  
jstudent1@yahoo.com



#### Highlights

- The stock is currently undervalued at a price of \$79.40. Our 2005 target price is \$94.00.
- Presently, 3M benefits from operations in over 60 countries with products being sold in nearly 200 countries.
- 3M has consistently outperformed the S&P 500 during the past three years.
- In 2003, 3M generated \$3.1 billion in free cash, which was up almost 40% year over year. Free cash was up 34% in 4Q03.
- Management reassured that the Company should be able to deliver a 12% - 14% in EPS in 2004.

*Please refer to the end of this report to obtain important disclosure information*

## **EXECUTIVE SUMMARY**

We are recommending the purchase of 300 shares of 3M at market order based on the following reasons:

- We have set a target price for 2005 of \$94, based on 24x our 2005 estimated EPS of \$3.88.
- The stock is currently undervalued at a price of \$79.60 (3/23/04). Our calculations indicate that its intrinsic value is \$92.52.
- Management's proven ability to consistently boost earnings and dividends.
- 3M's diversification allows it to perform as a defensive stock.
- Management's continuous push for innovation, top-line growth, and cost cutting

## **Historical Overview**

3M was founded in 1902 as the Minnesota Mining and Manufacturing Company. The company started out in the Lake Superior town of Two Harbors in Minnesota. First the company's focus was to mine for minerals that would be useful in grinding-wheel abrasives. This initial venture proved unsuccessful, but after two moves, ten years, and a production shift to sandpaper, in 1916 the company began to turn enough profit to pay an annual dividend of six cents per share. In 1920, 3M became the first company ever to produce waterproof sandpaper, which was designed to cut back the health problems associated with sanding dust.

In 1925, the company made its first major diversification move when a young 3M-lab assistant name Richard Drew developed a product known today as masking tape. This invention quickly led to the production of a series of different profit turning pressure sensitive tapes sold under the "Scotch" brand name. 3M furthered its diversification by developing innovative applications for the various adhesives the company used in their tape and sandpaper production. The adhesives found great demand in both the textile and automobile industry.

After brief involvement in production for World War II, 3M innovative research and development led to three more products. Scotchlight Reflective Sheeting, a material used in highway sign lettering, the magnetic sound recording tape, and offset printing plates each began to play a vital role in 3M's business. The production of the printing plates marked the beginning of the company's expansion into graphic arts. 3M continued its expansion in the 1950's by introducing Scotchguard Fabric Protector, the 3M videotape, ScotchBrite Cleaning Pads, and other electro-mechanical products. In 1960 the scope of production stretched to include overhead projection systems, medical and dental products, microfilm and photography products. Throughout the 1970's and 1980's the company continued to diversify by moving into pharmaceuticals, radiology, energy control, and the office market.

By 1990, 3M products had become available to the majority of the countries in the world. Highlights of the 90's include 3M's sales reaching 15 billion dollars annually. 30% of these sales came from products in existence for four years or less, indicating 3M's continued innovativeness and prosperity in producing in demand products.<sup>1</sup>

## **Macro Overview**

Presently, 3M benefit from operations in over 60 countries with products being sold in nearly 200 countries. Over the last five years the company has spent almost five and half billion dollars in research and development and over four and a half billion in capital investments. This commitment to R&D and capital is reflected in the 574 patents that it has been issued by the United States since the company's origination. With over 67 thousand employees, half of which are located in the USA, and half of which are located abroad, the company's 2003 total revenues amounted in 18.2 billion dollars. Of that amount, 10.7 billion was from international sales (58.4%), reflecting the company's prominent global presence. International revenues are expected to drastically increase in the following years. Net Income of over 2.4 billion dollars was realized in 2003, which amounts in diluted earnings per share of \$3.02. In 2003, the company paid its 88<sup>th</sup> annual dividend. The dividend payment per share was

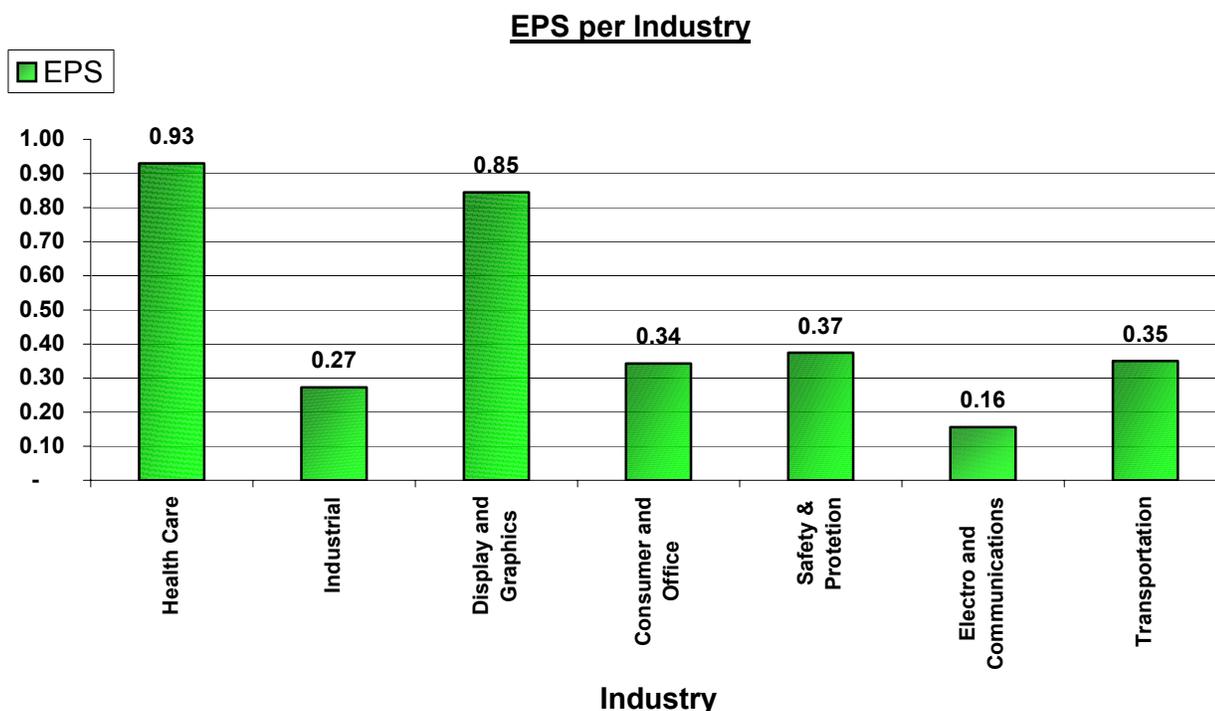
---

<sup>1</sup> 3M "A Quick Glance"

\$1.32, a 95% increase on its first dividend payment of six cents a share in 1916. As a further indicator of 3M's long profitable history, a purchase of one of 3M's shares at the company's inception would be worth over 245 thousand dollars today.<sup>2</sup>

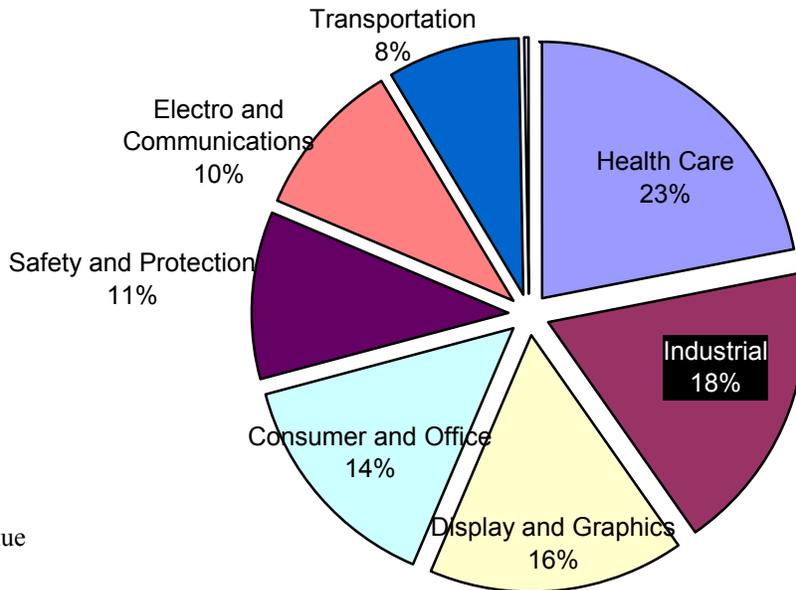
### **Micro Outlook and Recent News**

Today, 3M enjoys profits from each major market in which it is present. Sophisticated and well managed core technologies allow 3M to manufacture products for the following seven industries: Healthcare; Industrials; Display and Graphics; Consumer and Office; Safety, Security and Protection Services; Electro Communications; and Transportation. Below are both graphical and verbal analyses of the different businesses that make up 3M. Accompanying each 3M-business analysis is a brief report on the latest news pertaining to each division.



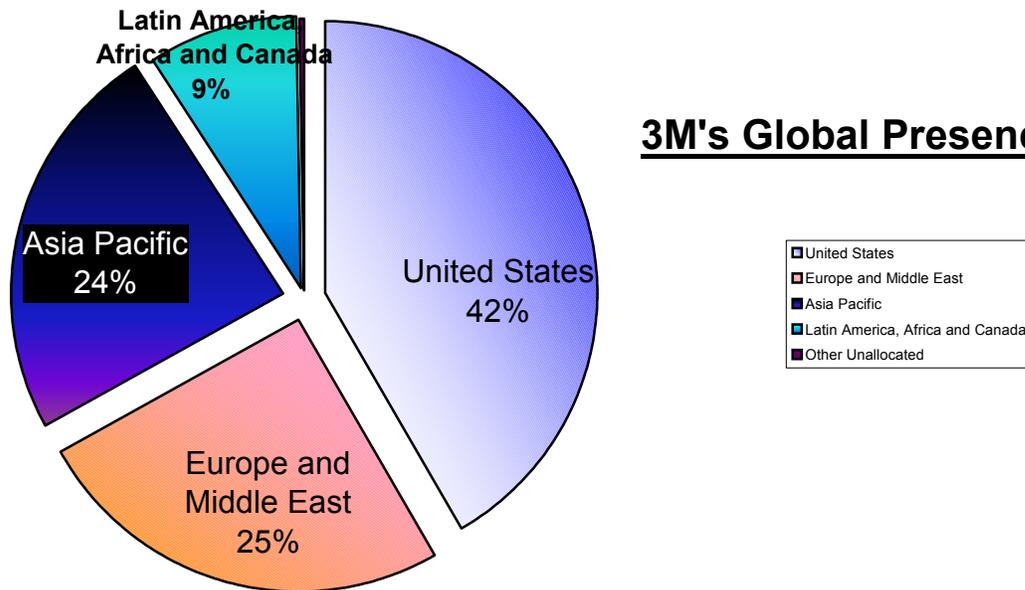
<sup>2</sup> 3M Fact Sheet

**3M's Industry Diversification**



\*Allocation according to revenue

**3M's Global Presence**



*Healthcare*

3M Health Care expands to medical, surgical, pharmaceutical, dental and orthodontic, health information systems as well as personal care. The business represented 21.9% of 3M's total business in 2003 and the division generated an operating income of \$1,027 million and net income of 740.11 million. 2003 was a year of international expansion for each of the health care markets. Some of the products provided to these health care markets included medical and surgical supplies, skin health and infection prevention products,

pharmaceuticals, drug delivery systems, dental and orthodontic products, health information systems, microbiology products, and closures for disposable diapers.

An agreement was reached with Eli Lilly and Company in September of 2001 to collaborate on resiquimod, an investigational compound for the treatment of genital herpes. 3M has realized \$44 million of revenue relating to this agreement in 2003, \$43 million in 2002 and \$7 million in 2001. In the third quarter of 2003, 3M gained complete control of resiquimod signaling higher realization of profit in the coming years.

SMIF INVESTMENT RESEARCH

March 24, 2004

On Wednesday, March 3<sup>rd</sup> 2003, 3M received approval from the US government to market its Aldara skin cream for the treatment of actinic keratosis (pre-cancerous skin cells). The drug is currently responsible for sales of 150 million in 2003, and is currently sold for its treatment of genital warts. The newly approved application of this product has the potential to add up to 400 million dollars in annual sales. The patent on the product runs through August 2009.<sup>3</sup>

In October 2003, IVAX Corporation began the process of assuming exclusive rights to 3M's branded health care respiratory products. The agreement includes minimum annual royalty payments amounting in a total of \$77 million, of which \$26 million was paid in 2003. 3M is expecting to receive \$24 million 2004 and 2005, and the remaining three million in 2006. Additional royalties up to seven million dollars may be paid by IVAX if it achieves a certain level of annual sales due to the rights acquisition.

### *Industrial Business*

The industrial business represented 18.4% of 3M's total revenue in 2003, with generated operating income of \$458 million and net income of \$217 million. This segment is involved with following markets: appliances, electronics, paper, packaging, food, and beverage. 3M sells tapes, adhesives, abrasives, and specialty materials through these markets.

Industrial tape and electronic materials were the drivers of this segment in 2003. 1.5% of the 3M industrial sales were due to acquisitions. Industrial's bottom line was affected by employment restructuring. The restructuring involved reducing employment for future competitiveness and cost savings. However, this restructuring has negatively impacted 2003 operating income by 27 million dollars.

### *Display and Graphics*

The Display and Graphics segment accounted for 16.2% of consolidated sales, and generating \$885 million in operating income, of which, \$673 million is net income. The products produced ultimately end up in electronic displays; touch screens, traffic safety and commercial graphics. The business includes a wide array of heavily patented products. The future patent life of these products range from one to more than 15 years. The patents ensure an exclusive business provisions bolstering 3M's already large competitive edge.

Optical systems growth was the primary driver of the Display and Graphic segment's growth in 2003. The growth in Optical systems was due to the acquisition of Corning Precision Lens, which heightened sales in the segment by 11%, as well as to the sales of display enhancement films, used in flat panel devices.

### *Consumer and Office*

In 2003, the Consumer and Office business represented 14.3% of 3M according to revenue, and is responsible for \$460 million in operating income and \$273 million in net income in 2003. This segment provides the consumer retail, office retail, education, home improvement, building maintenance and food service markets with office supply products, stationery products, construction and home improvement/home care products, protective material products, and visual systems products. The domestic growth in this segment was due to the vast gains in the construction and home improvement, home care, and stationery products businesses. These gains more than offset the slight losses that occurred due to visual system products.

### *Safety Security and Protection*

10.6% of 2003 revenue was due to the Safety, Security and Protection Services segment, which produced health operating and net income of \$437 and \$298 million respectively. The business of this section focuses on developing and selling safety precautionary products and efficiency enhancements. These products include various respirators, energy control products, cleaning products for commercial establishments, and roofing granules for asphalt shingles.

The outbreak of the SARS virus in 2003 contributed to an increase in revenue and profit due to heightened sales of dispensable respirators. The security systems, commercial care, consumer safety and light management, and industrial mineral products each demonstrated significant growth in the year.

---

<sup>3</sup> WSJ "Expanded Indication for 3M's Aldara Seen Lifting Sales 3/3/04"

## Electro and Communications

The Electro and Communications segment possessed 10% of consolidated 2003 sales, and generated \$255 million and \$124 million in operating and net income respectively. The segment manufactures electronic and electrical equipment, and constructs the maintenance segments of electric utilities, telecommunications and other industries through cost reducing

SMIF INVESTMENT RESEARCH

March 24, 2004

products that increase the speed of information delivery. The most influential of these products are the electronic and interconnect solutions, micro-interconnect systems telecommunications products and various electrical products.

The segment experienced a decrease in domestic and European sales, which was due to a continued lapse in the global telecommunications industry. Sales from the telecom business alone were down over 10% from 2002. Latin America, Africa and Canada area and the Asia Pacific area each experienced gains, which partially offset the decline of sales in the USA and Europe. On top of the drop in domestic and European sales, operating income was also adversely affected due to segment reorganizations amounting in 26 million dollars. The money went to employee reductions and segment restructuring in hopes of producing a segment in greater unity with the overall industry while increasing focus on the service provided to customers.

## Transportation

Lastly the Transportation segment represented 8.4% of 3M's total 2003 revenues, and accounts for \$389 million in operating income, 279 million in net income. The automotive, automotive aftermarket, marine, aerospace and specialty vehicle markets are served through 3M provisions of components and products that are used in the manufacturing, repair and maintenance of automotive, marine, aircraft and other specialty vehicles.

In 2003, 3M's involvement in the automotive industry drove domestic sales and operating income. The aerospace and aircraft maintenance business also contributed to sales and income gains. Each geographic area indicated growth.

## Global Performance

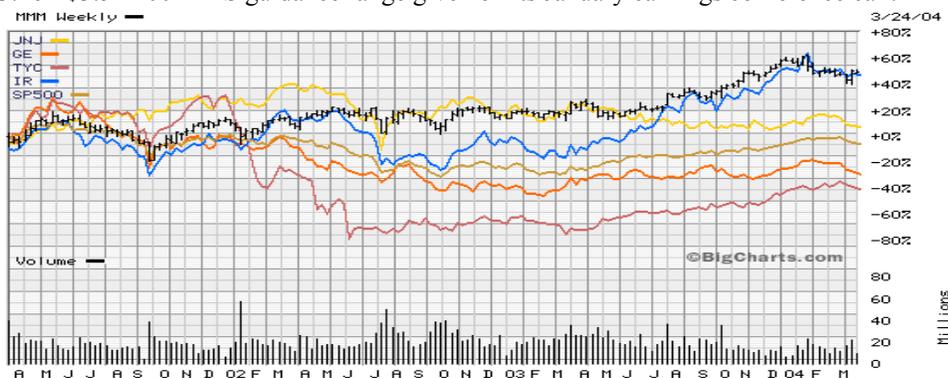
3M has continued to hedge its rapid expansion in China, Korea and Eastern Europe with its stabilized growth in more mature markets. Sumitomo 3M, the largest of 3M's international subsidiaries experienced strong sales growth and outperformed the sluggish Japanese economy.<sup>4</sup>

## US Dollar

The dollar continues to weaken against both the Japanese yen and the euro. For 3M, Europe accounts for 25% of sales, while Japan represents close to 10% of sales. 3M hedges about 50% of its international earnings, which leads to a lagging impact. In 4Q03, FX added \$0.03 to EPS and the Company reported that all of the gains were reinvested in the business.

## Pension

3M's pension expense increased from a \$(0.04) EPS impact in 2001 to \$(.08) in 2002 and \$(0.12) in 2003. In 2004, the Company sees a \$(0.14) hit from pension, with total expense of \$(0.26). The Company factored the \$(0.26) hit into the firm's \$3.46 - \$3.52 2004 EPS guidance range given on its January earnings conference call.



<sup>4</sup> 3M 2003 Annual Report

This is a 3-year chart charting the weekly performance of 3M against the S&P 500 and its main competitors (GE, Johnson & Johnson, Tyco, Ingersoll-Rand). 3M has consistently outperformed the S&P over this time period, and has been the most consistent, along with Ingersoll-Rand, which has been the only company to keep pace with 3M since July 2003.

3M follows the S&P in terms of trending up and down, and with the S&P poised for an up-trend, we look for 3M to move along with it.

## **Porter's 5 Competitive Forces**

### *Rivalry*

3M's main competitors consist of other conglomerates ranging from General Electric and Tyco International to Honeywell and Textron Incorporated. The companies offer competition according to size, product offering and services. Each of these companies has the size and capital necessary to move into the same areas of production as 3M. These companies exist internationally and are heavily engaged in beneficial global sourcing. Many other rivals exist in less-conglomerated companies that are focused on fewer markets. For example, companies like Johnson & Johnson and Bayer AG are able to compete very well with 3M's healthcare products. Due to 3M's size and well-established name, these competitors are not currently a major threat to 3M. As long as 3M remains well managed, and continues to focus on new markets and cost savings, they will maintain their competitive edge.

### *Threat of New Entrants*

A benefit of a company as diversified and large as 3M is that the threat of new entrance, or the barriers to entry, are significantly high. Furthermore, if and when the barriers are overcome, the competing companies have to prevail over 3M's prestigious and established name. One effective managerial strategy that 3M employs is being involved with businesses like Electro and Communications, and Healthcare which both require extraordinarily large amounts of capital. 3M often runs these businesses better than competing companies, due to the fact that 3M can afford to pay the large amounts necessary to offer superior products. These operations can be funded through, and leveraged against, other 3M operations.

### *Threat of Substitute Products*

The threat of substitute products always exists, but in 3M's case, the substitute products are usually going to be sold to consumers smaller than 3M's normal customer base. Furthermore, 3M can produce superior products at phenomenally low costs due to the synergies and economies of scale they realize. This fact enables 3M to offer superior products at lower costs, thereby slashing the threat of substitute products.

### *Bargaining Power of Suppliers*

Once again, due to 3M's size, most 3M suppliers are willing to work with 3M on their terms and conditions. 3M is a major producer and it is well worth it for suppliers to work for 3M at low costs because of the high volumes in which 3M will consume. Another important note is that 3M's conglomerate status makes almost every supplier a potential acquisition target.

3M's position and makeup often makes vertical acquisitions very lucrative. Suppliers that are difficult for 3M to work with will either watch 3M's business go elsewhere or will watch as 3M vertically integrates and becomes their own internal supplier. Suppliers in highly specialized businesses that could not be profitable to 3M offer the most bargaining power, but are still no major threat to 3M.

### *Bargaining Power of Buyer*

Conversely, 3M flashes major power as a buyer. 3M is such a huge company that it can employ smaller suppliers with such huge contracts that the suppliers almost solely work for 3M. This reality was evidenced by a company name Atek Manufactures in Minnesota. Atek produces aluminum components, and 3M was their major customer. Two years ago, Atek was turning a profit and making about 28 million in revenue, almost all of which was coming from 3M. Suddenly, 3M let the Atek know that they were shifting to a Mexican supplier to save money. This event almost put Atek out of business. Atek was forced to reduce cost in an effort to sell to 3M at cheaper rates, thereby retaining enough business to survive. Eventually, Atek diversified their client base, and is still in existence today, but this phenomenon is confirmation of the commanding power that 3M wields as a buyer.<sup>5</sup>

## **Management Strategies**

<sup>5</sup> WSJ "The Time to Diversify is Before its too Late" 3/2/04

3M's management team has historically performed extremely well year after year for its shareholders, evidenced by its solid stock performance and almost-annual dividend increases. An important aspect of 3M's business is its ability to leverage existing technology and scientific knowledge into new areas of business. Entering new markets is always a risk, but at 3M, risk-taking is encouraged, as they are striving to produce 40 percent of sales from products that have been introduced within the previous four years.

In 2004 and beyond, 3M will maintain its focus on implementing its five corporate initiatives<sup>6</sup> (Six Sigma, Global Sourcing Effectiveness, 3M Acceleration, eProductivity, and Indirect Cost Control), which are aimed at improving long-term revenue growth and lowering its total cost structure.

- ❑ *Six Sigma* – Focuses on higher growth, productivity, and cash flow.
- ❑ *Global Sourcing Effectiveness* – Generates savings by leveraging purchasing economies of scale, aggressively enforcing supply agreements, and geographic broadening.
- ❑ *3M Acceleration* – Pursuing more and better new product ideas, and introductions, along with reallocating research and development resources to larger projects.
- ❑ *EProductivity* – 3M believes it has a significant opportunity to improve productivity for its customers, suppliers, and itself.
- ❑ *Indirect Cost Control* – Focus on reducing cost not directly associated with products or services.

The initiatives increased operating income by more than \$400 million in 2003, which was preceded by a benefit of more than \$500 million in 2002. These initiatives are now fully imbedded in 3M's daily operations, and could account for another \$400 million increase in operating income for 2004.<sup>7</sup>

Not only is the company concerned with improving its efficiency and profitability, but it also emphasizes its reliance on its people. In order to grow, their employees must constantly learn, which is why they introduced their accelerated leadership development program, which offers an intense, high-energy learning experience, and remains at the top of the company's agenda in terms of importance to the corporation.

Overall, 3M's management team is stable, and has proven that they possess the ability to make effective managerial decisions for the well being of the corporation, and its shareholders.

## **Industry Overview**

According to Standard & Poor's, 3M Company is in the Industrials Sector and Industrial Conglomerates Industry.

The Industrial Conglomerates Industry is in the mature stage of its life cycle. This industry is extremely difficult for new companies to enter. Future sales and profits may never be affected because of the ever-present demand for their products. Major conglomerates such as GE and 3M Company continue to acquire smaller companies, which contribute to their growth and market share. The Industrial Conglomerates Industry consists of a variety of companies that offer a broad array of manufactured products and services, primarily to the industrial marketplace and, to a lesser extent, the consumer marketplace. Primary end markets include aerospace, automotive, chemicals, electronics, instrumentation, metals, and oil and gas. Products are used mainly as components in various manufacturing and industrial processes.

The Industrials Sector is a heterogeneous sector, and is highly cyclical. Therefore, the risks are varied and numerous, driven by the general political, economic and market conditions. Changes in GDP, industrial production and capital investment spending impact sales and earnings across the sector. In addition, currency exchange rates, governmental regulations and interest rates are equally influential.

As the capital expenditure cycle enters a recovery phase globally, this group is experiencing an improvement in business. However, the speed of recovery differs greatly from company to company. Recent industry statistics show that even late-cycle markets are experiencing a pick-up in orders, and we expect this segment to gain momentum in the medium term.

---

<sup>6</sup> 3M 2003 Annual Report

<sup>7</sup> Q4 2003 Conference Call

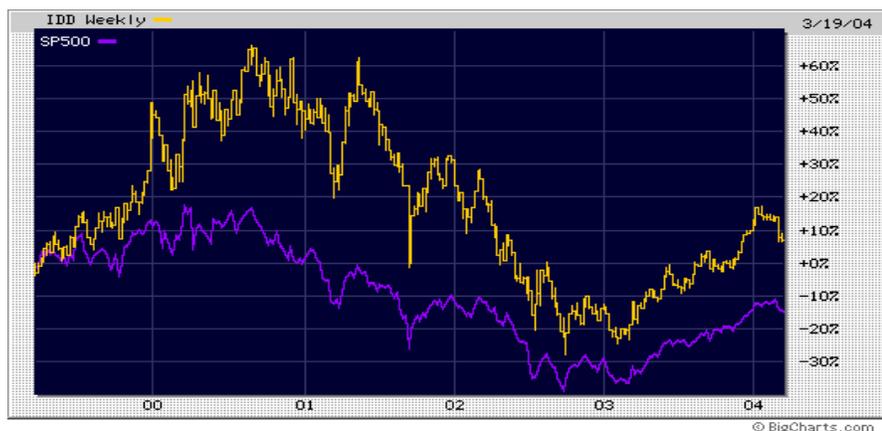
## Trends

In addition to 3M Company, several other industrial companies, including GE, Danaher and Ingersoll Rand have positively preannounced earnings for the first quarter, 2004. These companies serve a wide variety of industries (construction equipment, industrial automation, HVAC, consumer, etc.), indicating that the industrial recovery is accelerating and becoming broader based. Below is a chart comparing the S&P 500 to the Diversified Industrials Industry. The chart shows the out performance

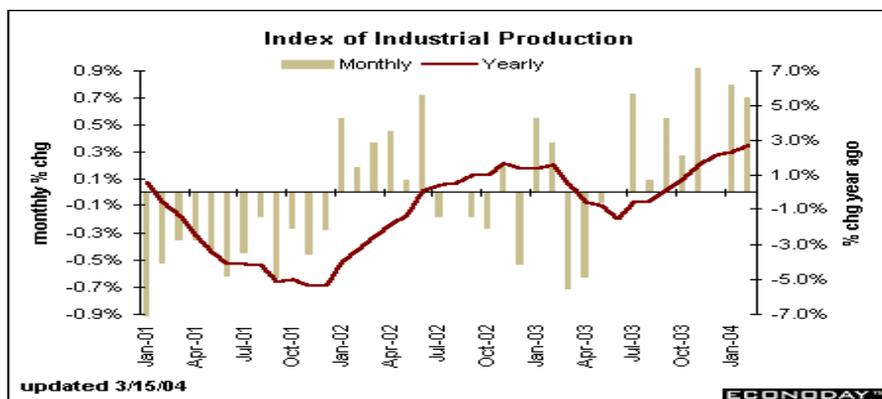
SMIF INVESTMENT RESEARCH

March 24, 2004

of the industry over the S&P 500, since early 2000. Even through the recent recession, the industry was able to outperform the S&P 500.

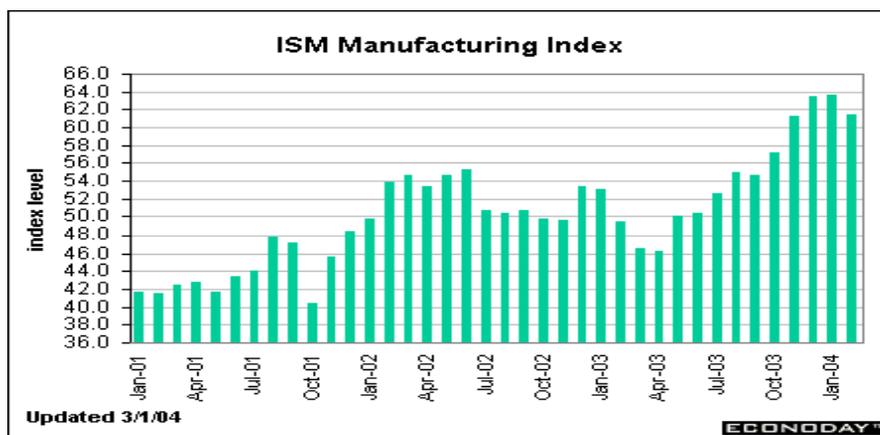


Industrial production grew 0.7% in February and has risen at a 6.8% (annualized) rate over the past six months, the fastest growth since early 1998. Together with January's unrevised rise of 0.8%, the reports help confirm that an industrial rebound is underway. Below is chart showing the growth of industrial production.



The Institute for Supply Management compiles a composite diffusion index of national manufacturing conditions. Readings above 50 percent indicate an expanding factory sector. The ISM manufacturing data gives a detailed look at the manufacturing sector, how busy it is and where things are headed. Since the manufacturing sector is a major source of cyclical variability in the economy, this report has a big influence on the markets.

The ISM pulled back slightly from 63.6 in January to 61.4 in February, but still indicated that US manufacturing activity is expanding rapidly. In addition to the new orders and production sub indexes remaining strong at 66.4 and 63.9, respectively, the employment index increased from 52.9 in January to 56.3 in February, the highest reading since 1987. The illustration below shows that the ISM continues to be strong.



### Factors Affecting the Industry

The effects of, and changes in, worldwide economic conditions impact results and trends. Industrial Conglomerates operate in many countries and derive a lot of their revenue from outside the United States. The industry's business may be affected by factors in the United States and other countries that are beyond its control, such as downturns in economic activity in a specific country or region; social, political or labor conditions in a specific country or region; or potential adverse foreign tax consequences.

Foreign currency exchange rates and fluctuations in those rates may affect the industry's ability to realize projected growth rates in its sales and net earnings and its results of operations.

### 3M Corporation Ratios

	3M Corp.	Bayer AG	J&J	Industry	Market
<b>Financial</b>					
Current Ratio	1.52	1.67	1.71	2.03	1.42
Quick Ratio	0.90	1.10	1.20	1.80	1.00
Total Debt/ Equity	0.37		0.15	1.99	1.40

3M Company is classified as in the conglomerate Industry, but it has Bayer AG and Johnson and Johnson as its top competitors. 3M has a favorable liquidity position compared to its Industry (Conglomerates), and it maintains a competitive stance in relation to Bayer AG and Johnson & Johnson. This liquidity allows 3M to be able to pay its short-term bills, whether planned or not. An important characteristic of any successful firm is how its current ratio and its quick ratio are correlated. In 3M's case its quick ratio is not as favorable compared to its Industry, Market, or even its competitors. Firms with a quick ratio of 1 or higher generally do not need to rely on inventories as much as others to pay down its short-term debt. 3M has a quick ratio of .90, compared to its Industry at 1.80. This is not as favorable as one would like considering it is a significant difference between the two comparables. However, 3M's current ratio is very favorable, and it has demonstrated itself to be a solid company in such respects.

3M's debt to equity ratio is extremely favorable compared to its Industry in particular, and even the market as a whole. This is an important factor for investors as it determines the risk of the firm to investors. 3M's debt to equity ratio makes it attractive to investors looking for a strong diversified conglomerate such as this. The ability of 3M to maintain such a favorable risk position is indicative of its diversified business.

	3M Corp.	Bayer AG	J&J	Industry	Market
<b>Operations</b>					
Inventory Turnover	4.40	2.50	3.00	5.10	7.60
Asset Turnover	1.10	0.80	0.90	0.40	0.30

3M's inventory turnover, at 4.40, is favorable considering its quick ratio, and the implications of such liquidity problems. This strong turnover ratio is a good sign that 3M has taken a hold of the costs associated with warehousing its inventory by moving its finished goods out with a fast processing time of the average good produced. This performance is an indicator of good operating performance, and backed up by a very strong asset turnover ratio. The asset turnover for 3M is extremely favorable compared to the top competitors, market as a whole, and especially 3M's Industry. 3M demonstrate a strong capability of using its assets to generate sales, and thereby reduce wasteful operating practices. This is an important indicator for 3M because it identifies management's ability to better use assets on hand to serve the stockholder's interest better than others. Especially important to investors looking to diversify their investment exposures without undue risk associated with wasteful turnover of similar conglomerates.

	<b>3M Corp.</b>	<b>Bayer AG</b>	<b>J&amp;J</b>	<b>Industry</b>	<b>Market</b>
<b>Profitability</b>					
Gross Profit Margin	49.07%	53.22%	75.38%	45.84%	48.20%
Net Profit Margin	13.18%	3.95%	17.19%	7.40%	4.01%
Return on Assets	13.70%	2.80%	14.90%	3.00%	1.30%
Return on Equity	30.50%	7.80%	26.80%	15.10%	7.80%
Return on Invested Capital	25.00%	7.80%	24.10%	6.80%	3.70%

Operating profitability is one of 3M's most attractive characteristics concerning relative strength to the Industry and even the Market. 3M demonstrate strong manufacturing and distribution efficiency with its gross profit margin compared to the Conglomerate Industry, and general market. Although closer in performance to the Industry relating to gross profit margin, 3M consistently does more favorably than the Industry and Market in reference to its cost control as indicated by a substantial difference in respective net profit margins. Since companies in the same Industry have similar business conditions such a spread in the net profit margin bodes well for 3M. Return on assets and return on equity are significantly favorable for 3M, compared to the Market, competitors, and especially the Industry. 3M stands out above the rest in a big way with a return on assets of 13.70% compared to an Industry with only 3.00%. 3M's return on equity reflects a strong ability to generate profit in comparison to the amount of shareholder equity. This indicates that 3M is in a better position to generate cash internally if/when the need arises, and thereby a more favorable investment in the eyes of stockholders. In conjunction 3M has a very strong return on invested capital ratio, which reinforces the return on assets position as a leading firm. 3M's return on capital is also very favorable at 25% compared to the Industry at just under 7%.

#### *DuPont Analysis:*

**ROE = Profit Margin \* Asset Turnover \* Equity Multiplier**

$$\frac{\text{Net Income}}{\text{Equity}} = \frac{\text{Net Income}}{\text{Sales}} * \frac{\text{Sales}}{\text{Total Assets}} * \frac{\text{Total Assets}}{\text{Equity}}$$

#### **FY2001:**

$$23.50\% = 8.91\% * 109.91\% * 239.99\%$$

$$\frac{1,430}{6,086} = \frac{1,430}{16,054} * \frac{16,054}{14,606} * \frac{14,606}{6,086}$$

#### **FY2002:**

$$32.94\% = 12.09\% * 106.54\% * 255.78\%$$

$$\frac{1,974}{5,993} = \frac{1,974}{16,332} * \frac{16,332}{15,329} * \frac{15,329}{5,993}$$

#### **FY2003:**

$$30.48\% = 13.18\% * 103.59\% * 223.31\%$$

---

$$\frac{2,403}{7,885} = \frac{2,403}{18,232} * \frac{18,232}{17,600} * \frac{17,600}{7,885}$$

**Analysis:**

The DuPont Analysis shows that the return on equity has risen substantially between FY'01 and FY'02, with some improvement thereafter through FY'03. It is of notice that the factors most affecting the positive trend are the net income and sales through the 3-year span. One notable exception occurred in FY'02 when equity dropped off and inflated the equity multiplier. However, the overall affect was negligible to the upward trend.

### Technical Analysis

Last:79.59 Change:-0.10,-0.14% Open:80 Low:79.50 High:80.50 As of: 4:00 PM EST



This is a 10-year chart of 3M Company. The stock has significantly increased since being at its \$17.00 price in 1989. It hit a top in January at about \$85.00. We can also see that volume has dramatically increased over the years. The stock price only dipped below its 10-year 50 day moving average on three occasions. It briefly fell below the average in 1999, 2000 and 2001. It never fell below its 10-year 100 and 200 DMA. The volume by price shows that a majority of the stock's volume was in the \$37.00-\$57.00 range. The MACD indicator reveals the MACD line is above the 9-day EMA crossover line, which indicates that the stock is bullish, however the gap between the two lines is narrowing. The RSI indicator is also giving a bullish signal. It is at about 60, which is above the neutral level, (neither overbought nor oversold) but it is not near the overbought level. Although volume has been decreasing during the past several months, the money flow into and out of this company has dramatically been rising over the years and looks to be very strong at this point in time. Overall, the

indicators used to evaluate this stock are positive, however, the stock price is slightly moving down. This is not a significant move in the price and probably is tentative.



This is a 2-year chart of 3M Company. As you can see, the stock price has recently dipped below its 2-year 20 DMA, but only by less than a dollar. The stock has increased recently due to its positive Q1 '04 preannouncement. In recent weeks prior to its positive announcement, it decreased by about \$4.00, as the Dow Jones Industrial Average dropped about 350 points. It is a Dow 30 stock. Going back two years, you can see the stock price tended to trade above its 20 DMA. It dipped below its 50 DMA on several occasions, but also traded above that moving average most of the time. The MACD indicator shows that the stock is bullish because it is above the 0 line. The MACD line is below the 9-day exponential moving average. The RSI indicator reveals that the stock is bullish. The indicator is in the neutral region at about 55. Overall, this analysis indicates that the stock is bullish and in no serious danger of declining.

**Explanation of Forecasts**

We see revenues increasing 8% in 2004 to \$19.7 billion, and 8 ½ % in 2005 to \$21.4 billion, mainly on the fact that 3M’s product line is diversified considerably, insulating it from drastic economic swings, and continued success in its Asia Pacific and Latin American geographic areas.

Gross margins should continue to improve as the company maintains its corporate initiatives of improving efficiency and driving down costs. We expect gross margins of 50.06% and 50.15% in 2004 and 2005 respectively.

We expect, based on management’s guidance, the effective tax rate to remain the same for 2004 and 2005.

Overall, we are anticipating an increase in earnings of 16% and 10% for 2004 and 2005, respectively, with earnings per share of \$3.50 and \$3.88.

---

Compared to the Wall Street consensus, our estimates fall on the low-end of both 2004 and 2005 average estimates of \$3.60 and \$4.04. The discrepancy is due to our conservative approach in the company's top-line annual growth rate, which, among analysts, has been expected to increase because of management's recent optimistic guidance for Q1 2004.<sup>8</sup>

---

<sup>8</sup> Excel File "3M Valuation"



***Disclosure***

Any analyst principally responsible for the analysis of any security or issuer included in this report certifies that the views expressed accurately reflect such research analyst's personal views about subject securities or issuers and certifies that no part of his or her compensation was, is, or will be directly or indirectly related to the specific recommendation or views contained in the research report.

The research analyst, a member of the team, or a member of the research analyst's household does not have a financial interest in any stocks mentioned in this report.

The Student Managed Investment Fund has no knowledge of any material conflict of interest involving the companies mentioned in this report and the Fund.

The Student Managed Investment Fund does not make a market in the shares of MMM.

The research analyst or a member of the team does not have an actual material conflict of interest relative to any stocks mentioned in this report.

The research analyst, a member of the team, or a member of the household does not serve as an officer, director, or advisory board member of any stocks mentioned in this report.

St. John's University Student Managed Investment Fund 2003, all rights reserved. 8000 Utopia Parkway, Jamaica, NY 11439