Group Number : pk Date: 3/26

Medtronic (MDT) / Guidant (GDT): the duopoly in cardiac rhythm management

	GDT	MDT			GDT	MDT
Current Price	$36.50	$47.10		**Accting Perf**		
# shares	.307B	1.22B		Earnings	.614BB(ttm)	1.410B(ttm)
Size				EPS	$2.00(ttm)	$1.15(ttm)
Mkt Cap	11.20B	57.40B		ROE	31.32%(ttm)	20.74%(ttm)
Debt	.37B	2.42B		ROA	18.55%(ttm)	12.71%(ttm)
T.E.V.	11.57B	59.82		Gross Mgn	25.9%(ttm)	28.3%(ttm)
B.V.Equity	2.32B	7.57B		Profit. Mgn	18.9%(ttm)	19.3%(ttm)
Assets	4.83B	11.09B		AssetTurnover	.67	1.52
Sales	3.24B(ttm)	7.31B(ttm)		**Mkt Perf**		
Risk				P/E	18.25	40.88
Debt Ratio				P/Sales	3.45	7.91
Debt/Equity	.16	.32		TEV/Sales	3.56	8.18
Interest Cov				Mkt/Bk	4.82	7.58
Working Cap	1.03B	1.49B		Div Yield	0.22%	0.53%
Current Ratio	2.66	2.61		**Cash Flow**		
Quick Ratio				EBITDA	854.9M(ttm)	2.49B(ttm)
Mkt Beta	.38	.62		EBIT		

Sources: finance.yahoo.com, Annual reports, 10K's, & 10Q's; Fiscal year ends Dec. 31 for GDT, Apr. 30 for MDT.
ttm = trailing twelve months.

The Business

MDT is one of the world's largest makers of implantable biomedical devices. The company's therapeutic medical products focus on improving cardiovascular and neurological health.

A. MDT's cardiac rhythm management products include devices for the control of bradycardia (pacemakers for irregular slow heartbeat), tachyarrhythmia (defibrillators for irregular rapid heartbeat), and Congestive Heart Failure (CHG). These products accounted for 46% of 2002 MDT sales. MDT also makes mechanical and tissue heart valves, implantable neurostimulation and drug delivery systems, perfusion blood systems, and catheters used in angioplasties. These accounted for 22% of 2002 sales.

B. Other areas of potential growth in the market for implantable devices include new methods to treat diabetes, epilepsy, and other cardiovascular and neurological disorders (32% of 2002 sales).

C. MDT is also developing products for minimally invasive cardiac surgery and sleep apnea (spine & ear, nose & throat), to reduce procedure time and improve patient recovery (16% of 2002 sales).

GDT has been chasing MDT. In the past, GDT has done well. This has been a bad year for GDT.

A. GDT also makes cardiovascular therapeutic devices and related products (defibrillators and pacemakers) to detect and treat abnormally fast, slow, and irregular heartbeats. Cardiac rhythm management products account for 45-50% of GDT sales.

B. The company's vascular intervention products (stents) open blocked arteries; used to account for 40-45% of sales; but accounted for only 29% of 2002 sales. A coronary stent is a tiny mesh tube used to prop open clogged arteries, used primarily following angioplasty. The percentage of angioplasty procedures using stents has increased dramatically over the past 10 years -- now almost all use stents.

C. GDT also develops minimally invasive cardiovascular surgery devices and drug delivery systems.

D. GDT products are mostly sold in the U.S. (70% of their sales), but also in 70 other countries.

Competition / Environment / Market Share

Competition in this industry is driven by advances in technology and battles for productive sales forces. The companies invest heavily in R&D, in a continual fight for the lead in technology.

Growth Strategies: These companies can grow through four strategies: 1) internal R&D; 2) growth in the overall market; 3) external collaboration; and 4) acquisitions. During the 1990's, medical supply companies' growth was fueled by the first two items. Recently, companies have changed strategies as absolute market size has become more relevant. Industry consolidation has begun and is expected to continue.

Marketing strategies are based on developing a sales force of "loyal independent contractors" who cultivate and maintain relationships with hospitals and surgeons, and thereby generate sales for the company. Much attention and resources are spent developing and defending established sales forces and the rights to valuable technology (witness recent suits accusing each other of patent infringements). Patents on proven technology and well-established loyal sales forces represent significant barriers to entry.

These ***barriers to entry*** generate ***monopolistic pricing power*** and ***attractive margins***.

Prospects for Performance / Opportunities / Problems

Bull Story: Development of new technology has allowed treatment of previously untreatable conditions – and thus improving lifestyles – of patients with conditions that previously may have limited their lifestyles. Changing demographics (aging baby-boomers) represent huge potential growth in the demand for implantable medical devices and for surgical cardiac health care. In addition, new technology is expanding the ability to use implantable devices to treat many other cardivascular and neurological ills that have always required more intrusive surgery. These factors represent immense growth potential.
The market has been willing to pay huge premiums for an extraordinary growth story, especially where barriers to entry offer the ability to generate and maintain pricing power and attractive margins.

Bear Story: First, huge premiums are already in current prices. Market sentiment for such premiums may be changing. Second, monopolistic pricing power is difficult to maintain. Competition between market leaders should be fought on the pricing front. There is also great incentive for others to fight to enter this market. This competition could reduce market share and margins for both MDT and GDT. In addition, public scrutiny has resulted in government pressure for other participants in the health care industry (hospitals, doctors, ...) to tighten their margins. Political pressure could develop for pricing regulation over the market for these devices. GDT had a bad year, with many blunders and some bad luck. Can they turn it around?

Best Scenario – 5 Reasons to Buy

MDT:
1. Market leader, brand name.
2. Biggest, most successful, can commit large amount to R&D.
3. If they can continue to produce new & improved products, they will continue to command large margins.
4. Changing demographics, baby boomers will need these, growth story. Rising tide lifts all ships.
5. Great management – have not dropped the ball.

GDT:
1. Second biggest in industry, good brand name recognition.
2. Smaller than MDT, can change strategy quicker to respond to changing obstacles/opportunities.
3. Have the currently best pacemakers/defibrillators, have advantage in developing market for stents.
4. Changing demographics, baby boomers will need these, growth story. Rising tide lifts all ships.
5. Recent mistakes by management punished by market. Price currently reflects discontent. May be opportunity.

Worst Scenario – 5 Reasons Not to Buy

MDT:
1. Premium commanded by being market leader is too much. Too expensive.
2. Can waste large amount on R&D if projects are not successful. Must get through FDA approval, etc.
3. Pressure from regulators & Congress to reduce margins. Would hurt profitability and reduce current high price multiples.
4. Fact that baby boomers will need these, growth story, is already factored into high prices and multiples. Expensive!
5. Attractive margins should attract lots of competition! Watch out for BSX, J&J, and St. Jude.

GDT:
1. Recent trouble with lawsuits. Some devices failed, patients died, hurt by publicity. Need to resolve these disputes.
2. Recent success of new products result of high R&D. Expensive to continue to produce best devices! Hard to beat MDT.
3. Pressure from regulators & Congress to reduce margins. Would hurt profitability and reduce current high price multiples.
4. Fact that baby boomers will need these, growth story, is already factored into high prices and multiples. Expensive!
5. Recent mistakes by management are bad. They deserve to be punished by market! Management needs to get act together.

Buy/Sell Recommendation

Valuation Model: P* today = P* in 5 yr / $(1+k)^5$; P* in 5 yr = (P/E)* times E*; where (P/E)* & E* are projected (P/E) & EPS in five yr.

Guidant

2004 EPS	5-Yr E Growth	Projected EPS in 5 Years	Projected P/E in 5 Years	Projected Price in 5 Years	WACC / Discount Rate	Current Fair Value
1.93	16.00%	4.05	20	81.07	16.87%	37.18

Medtronic

2004 EPS	5-Yr E Growth	Projected EPS in 5 Years	Projected P/E in 5 Years	Projected Price in 5 Years	WACC / Discount Rate	Current Fair Value
1.41	20.00%	3.51	25	87.71	12.26%	49.20

Note Assumptions: 1. (P/E)* = 20 for GDT, 25 for MDT; (2) EPS next year = $1.93 for GDT, $1.41 for MDT; 3. 5-year growth rate in earnings = 16% for GDT, 20% for MDT; 4. Appropriate discount rate is WACC for each. Given these assumptions, at today's prices GDT is cheap and MDT is expensive. BUY GDT; SELL MDT.