RESEARCH REPORT

November 22, 2021

Stock Rating	HOLD
Price Target	USD $124.97
Current Price	USD $117.22

Bear Case	Price Target	Bull Case
$104.47	$124.97	$151.48

Ticker	MDT
Market Cap (MM)	$157,756
EV/EBITDA LTM	19.2x
EV/Sales LTM	6.9x

52 Week Performance

Medtronic

I'll Have a Med and Tronic

Medtronic plc (NYSE: MDT) is one of the world's largest manufacturers, distributors, and sellers of medical therapy-based devices. The company serves hospitals, physicians, clinicians, and patients in over 150 countries worldwide. Medtronic operates its revenue in four segments: Cardiovascular Portfolio, Neuroscience Portfolio, Medical Surgical Portfolio, and Diabetes Operating Unit.

In evaluating Medtronic, the team has focused on looking at each of the four revenue segments, management, capital allocation, and valuation. Medtronic's Cardiovascular segment is historically the "cash cow", being the largest segment with a strong product outperformance. The Medical Surgical segment focuses on Surgical innovation and Respiratory, Gastrointestinal, and Renal divisions. Both divisions have performed averagely in the industry and Medtronic's portfolio. Neuroscience is one of Medtronic's most promising areas for growth and has been broadening its ecosystem. Medtronic's Diabetes segment was the first to market diabetic products and has developed a strong brand. Although, this segment is a relatively small contributor to the revenue stream.

Medtronic has a robust capital allocation plan focused on driving sustainable shareholder value over the long term. By the end of 2021, the company expects to deliver 80% or greater FCF conversion by the end of 2021 and has achieved consecutive dividend increases over the last 43 years. Valuing Medtronic, the team looked at the driving revenue growth of each segment and the effects COVID-19 had on Medtronic's financials. Medtronic trades at a reasonable price relative to its value and will continue to be monitored for a better price.

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Company Overview

Medtronic plc (NYSE: MDT) is one of the world's largest manufacturers, distributors, and sellers of medical therapy-based devices. The company serves hospitals, physicians, clinicians, and patients in over 150 countries around the world. Medtronic has served over 72M patients and has more than 90,000 workers, with over 370 locations worldwide. Medtronic is the biggest player in the United States medical manufacturing industry with a 28% market share. In 2021, the company generated $30.12B in revenue, holding over 49,000 patents in the company's portfolio.

The company is headquartered in Dublin, Ireland, and was founded in Minneapolis, Minnesota in 1949 by Earl Bakken and Palmer Hermundslie. It started as a medical electronics repair business, and by 1958, Medtronic produced its first implantable pacemaker. In 2015, Medtronic acquired Covidien, an Irish medical devices and supply company, for $42.9B. Since, Medtronic has built a portfolio of devices that treat over 70 different medical conditions. The company is focusing on new innovative technology, spending $2.5B towards research and development investments during 2021.

Effective February 1, 2021, Medtronic implemented a new operating model. The model changed the structure of the Portfolio segments to: Cardiovascular (formerly Cardiac and Vascular Group), Neuroscience (formerly Restorative Therapies Group), Medical Surgical (formerly Minimally Invasive Therapies Group), and Diabetes Operating Unit (formerly Diabetes Group). This new model did not change Medtronic's operating and reportable segments.

Segment Overview

1) **Cardiovascular** - Consists of the Cardiac Rhythm and Heart Failure, Structural Heart and Aortic, and Coronary and Peripheral Vascular divisions. Producing cardiac rhythm disease management, coronary, structural heart and endovascular products - accounts for 35.8% of revenue.

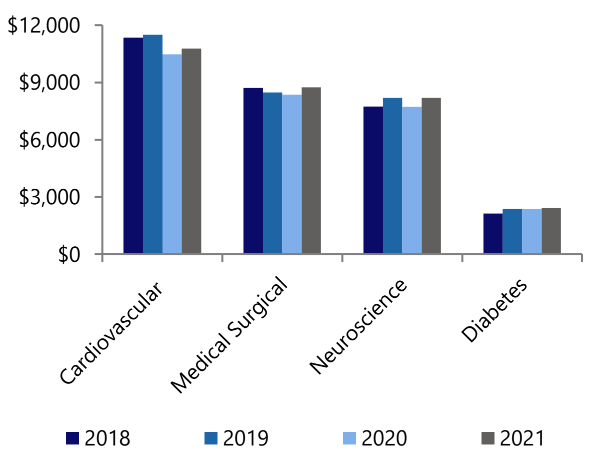
2) **Medical Surgical** – Has Surgical Innovations and Respiratory, Gastrointestinal, and Renal divisions. These products include surgical stapling devices, robotic-assisted surgery products and vessel sealing instruments – accounts for 29% of revenue

3) **Neuroscience** – Made up of the Cranial & Spinal Technologies, Specialty Therapies, and Neuromodulation divisions. It offers products to spinal surgeons, neurosurgeons and neurologist - accounts for 27.2% of revenue

4) **Diabetes** – Has products for managing both Type 1 and 2 diabetes, such as insulin pumps, consumables, and glucose monitoring systems - accounts for 8% of revenue

EXHIBIT I

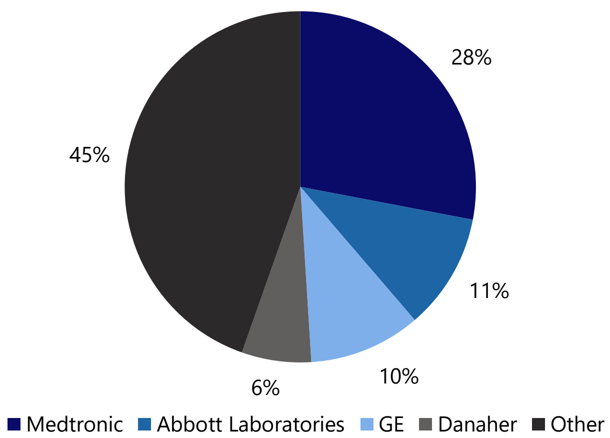
Revenue Breakdown of Segments, in $M



Source(s): Company Filings

EXHIBIT II

Major Players in U.S Medical Device Manufacturing



Source(s): IBISWorld

Segment Evaluation: Cardiovascular Portfolio

Overview

Medtronic's cardiovascular segment is one of its key segments, contributing to ~36% of revenue and representing the most critical part of its business model. Medtronic has consistently exhibited their competitive advantage of innovation in this space, with market-leading products that dominate the segment.

After its recent restructuring, Medtronic's cardiovascular portfolio is composed of three segments: Cardiac Rhythm and Heart, Structural Heart and Aortic, and Coronary & Peripheral Vascular. Within the Cardiac Rhythm segment, key products include pacemakers, defibrillators, cardiac monitoring systems, and more. The Structural Heart segment includes artificial valves and other implantable heart structures. Finally, the Coronary segment focuses on products to treat its namesake, coronary heart disease, as well as other peripheral diseases.

Brand Strength and Competitive Position

The company has striven to innovate in the cardiovascular space, remaining the largest player in the global market. Key competitors in the space include Boston Scientific, Edwards Life Sciences, and, Abbott. Its first-ever product was the world's first battery-operated pacemaker, indicating a history of innovation and excellence. An exciting recent innovation is the world's smallest pacemaker, as well as an antibacterial envelope for cardiac procedures, named one of the Cleveland Clinic's top 10 medical innovations of 2020. In general, the cardiac market operates as a "rational oligopoly", making it an attractive market for investors due to a wide moat with high barriers to entry.

Medtronic also enjoys a significant competitive advantage due to its innovative tendencies, often being first-to-market with goods, creating inroads with physicians and and strong patent protection (over 46,000 patents). Thanks to spending $2B+/year on R&D, the HC team is confident Medtronic's competitive position and value proposition to its customers will remain in an increasingly competitive market. Its product offerings are often superior to peers, with its pacemakers performing best-in-class in several studies. In each of its three cardiac subsegments, it holds at least 25% market share, and close to 50% in cardiac rhythm management. This dominant market position allows them to achieve economies of scale and strong relationships with health care practitioners.

Although this segment has experienced stagnating growth over the past few years, this can be mostly attributed to a maturing market and the delay of surgeries in favour of COVID-19-related procedures. Additionally, the strong reputation, innovative products, and entrenched market position Medtronic possesses gives the HC team conviction that Medtronic will retain its market leadership in the space.

Risk / Growth Opportunities

Risk: Increasing regulatory barriers

As regulations and clinical trial requirements rise in the space, Medtronic could face stiffer barriers to getting its innovations to market. However, its diversified product portfolio mitigates this risk by preventing the delay of one product from derailing overall business performance.

Growth: Changing demographic factors

An aging population and greater obesity levels in developed markets drive increased levels of coronary heart disease, heart failures, and other significant age/obesity-related issues.

Conclusion

Overall, the Cardiovascular segment is Medtronic's historical "cash cow" and largest, most successful segment. Product outperformance in the sector, strong innovation, and an attractive competitive moat give the HC team strong conviction in this segment of the busines.

Segment Evaluation: Medical Surgical

Overview

The Medical Surgical segment, with 2021 revenue of $8.7 billion, is comprised of two divisions: Surgical innovation and Respiratory, Gastrointestinal, and Renal. The products are used by healthcare systems, physicians, ambulatory care centers, sometimes home centers, and other healthcare providers.

Surgical Innovation: This division is comprised of the surgical innovation and the surgical robot division. These divisions makes surgical products like advanced stapling and energy products, electrosurgical hardware instruments, and hernia treatment. Recently, Medtronic revealed Hugo, its robotic-assisted surgery system.

Respiratory, Gastrointestinal & Renal: This division's operating units are Respiratory Interventions, Patient Monitoring, Gastrointestinal, and Renal Care Solutions. Respectively, these divisions develop and manufacture airway, ventilation, and inhalation therapies products, products for patient monitoring, gastrointestinal and endoscopy products, and products providing solutions for the treatment of renal disease.

Brand Strength and Competitive Position

Johnson & Johnson and Medtronic are the largest surgical instrument manufacturing companies. While basic instruments like scalpels, sutures, and scissors have seen commoditization, complex instruments creates space for innovation and more competition. Key success factors include economies of scale (large companies better able to spread fixed costs across products and have negotiating powers) and contacts (relationships with medical supply wholesalers). Both are much easier for large companies to establish and creates a barrier to entry for smaller companies. With Medtronic being one of the larger companies in the spaces, it has some protection for the complex instruments. Larger companies in the medical surgical industry are vertically and horizontally integrated with strong brands, having an advantage over the smaller brands. However, some low-cost, private-label products can be appealing to some markets, and therefore competition is still relatively high.

In 2015, Medtronic bought Covidien, its minimally invasive therapies brand, and RF Surgical Systems. Prior to the acquisition, Covidien had carried out many strong acquisitions, which allowed Medtronic to benefit from the expanded product portfolio, specifically in the surgical devices area. Additionally, Covidien had acquired Given Imaging, a developer of gastrointestinal medical visualization devices. In 2020, Digital Surgery was acquired to further next generation surgical artificial intelligence capabilities. With a proven track record of strong acquisitions, Medtronic will expand its product portfolio and stay competitive.

Risk / Growth Opportunities

Risk: Lack of future viability of tax inversion

Globalization within the surgical instrument industry is trending high. Due to overseas manufacturing being cheaper and having lower tax rates, U.S. companies were merging with overseas companies. Medtronic acquired Covidien partly to affect this tax inversion. However, the government has made it harder to make these acquisitions, such as though the global minimum tax rate, therefore likely reducing globalization.

Growth: Evolution of minimally invasive surgery (MIS)

The medical surgical industry has seen rapid growth through MIS. MIS requires smaller incisions for complex surgeries, compared to traditional surgery, which can result in less trauma and quicker patient recovery. Furthermore, MIS allows for hospitals to reduce patient stay lengths and therefore manage costs better. The rise in popularity of MIS in the medical field is expected to continue to grow, which will increase the demand for specialty surgical instrument used in MIS procedures.

Conclusion

The Healthcare team sees the Medical Surgical segment as average. With other large players in the space, it can be hard to gain greater market share and requires innovation. That being said, it is an established business that does well in the industry.

Segment Evaluation: Diabetes Group

Overview

The Diabetes Group makes products and services for the management of Type 1 and Type 2 diabetes. Medical specialists that use and prescribe the diabetes products include endocrinologists and primary care physicians. Products includes insulin pumps with built-in continuous glucose monitoring, continuous glucose monitoring (CGM) systems and sensors, the InPen smart insulin pen system that combines the Bluetooth insulin pen with a mobile app that helps administer the right dose, and consumables and supplies such as infusion sets. Advanced insulin management includes an automated delivery service, multiple daily injection solutions, and customer retention and experience.

Brand Strength and Competitive Position

Medtronic's diabetes care segment has grown at a faster pace than Abbot's and Roche's, but has been slower than DexCom. Sales of Medtronic's diabetes group grew at an average annual rate of 8.0% from $1.8B in 2015 to $2.4B in 2019. Roche's declines 6.1% with $2.6B in 2014 to $2.0B in 2018. Estimations of Abbott's diabetes care revenue show a CAGR of 7.6% from $1.6B in 2014 to $2.0B in 2018. On the other hand, DexCom experiences the fastest growth with a CAGR of 42.0% with $257 million in 2014 to over $1B in 2018.

Medtronic's market share in the diabetes care market has historically been stable. Medtronic's market share grew from 27% in 2014 to 30% in 2018. Due to the popularity of its MiniMed systems, analysts estimate that Medtronic will be able to maintain its 30% market share. Growth will most likely be mostly attributed to the MiniMed 670G, the world's first hybrid closed loops system that optimized glycemic control for patients with type 1 diabetes, and Guardian Connect, a continuous glucose monitoring system for people requiring insulin injections, with abilities to be connected with apps to predict and alert high and low levels of glucose, both which are experiencing strong demand in the U.S. and which the company expects to be long term revenue streams. While the diabetes group is a relatively smaller group for Medtronic, with only about 8% contributing to the top line, Guardian Connect competes with DexCom's G5 and Abbot's FreeStyle Libre CGMs.

Within the diabetes market, Medtronic is first to market with many of its innovations. For example, Medtronic launched MiniMed 670G, the World's First Hybrid Closed Loop System for Type 1 Diabetes in 2017, and in 2021, launched the first infusion set that can be worn for up to 7 days. Being first to market is important in an industry where physicians use and prescribe products as they are innovated.

Risk / Growth Opportunities

Risk: Technology not meeting FDA safety standards

In 2019, it was announced that according to FDA Safety Communication, certain Medtronic MiniMed insulin pumps have potential cybersecurity risks. Patients using these models had to switch their insulin pump model that would protect against these risks. In 2021, Medtronic expanded the recall of its insulin pump controllers due to the cybersecurity risks in a Class I recall, the most serious type of recall. News that an unauthorized person could potentially record and replay communication between the remote and the MiniMed insulin pump can hurt Medtronic's brand.

Growth: International growth

Medtronic expects continued growth internationally for the MiniMed 780G system. The system was approved in the E.U. in 2020 and launched in over 30 countries on 4 continents outside of the U.S. starting in October 2020. Strong sensor attachment rates have increased to do more global adoptions for the sensor-augment insulin pump system.

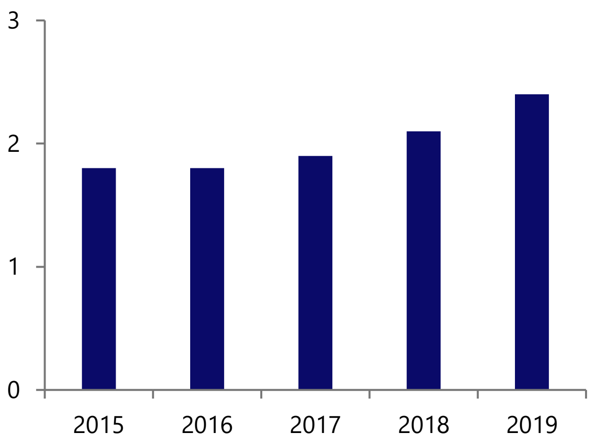
Conclusion

Medtronic's ability to be first to market with products in the diabetes care industry with a strong brand makes this segment relatively strong. However, while it may be strong, it is relatively small, and therefore may not make as much of an impact on the company.

Segment Evaluation: Diabetes Group

EXHIBIT III

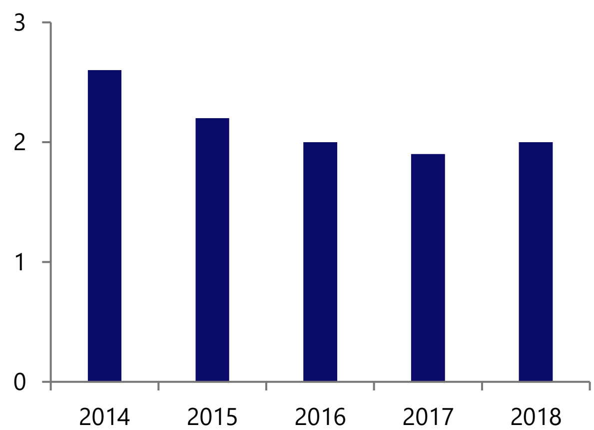
Medtronic's Diabetes Care Revenue ($B)



Source: Trefis

EXHIBIT V

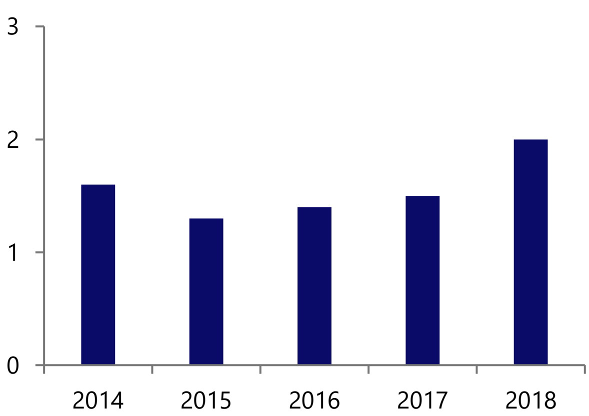
Roche's Diabetes Care Revenue ($B)



Source: Trefis

EXHIBIT IV

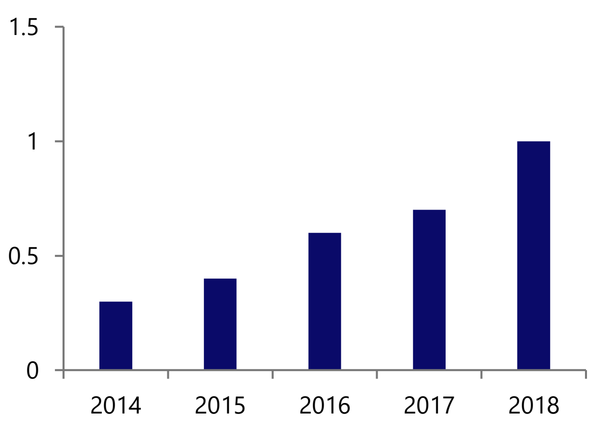
Abbott's Diabetes Care Revenue ($B)



Source: Trefis

EXHIBIT VI

DexCom's Diabetes Care Revenue ($B)



Source: Trefis

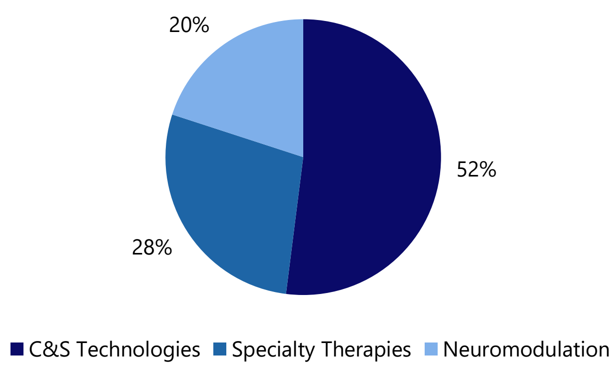
Segment Evaluation: Neuroscience Portfolio

Overview

Medtronic's Neuroscience segment generated approximately $8.2 billion in net sales for FY 2021 – accounting for almost 27% of total portfolio net sales. Neuroscience is the company's third-largest business which encompasses three key sub-segments; (1) Cranial & Spinal Technologies, (2) Specialty Therapies, and (3) Neuromodulation.

EXHIBIT VII

2021 Net Sales by Sub-Segment



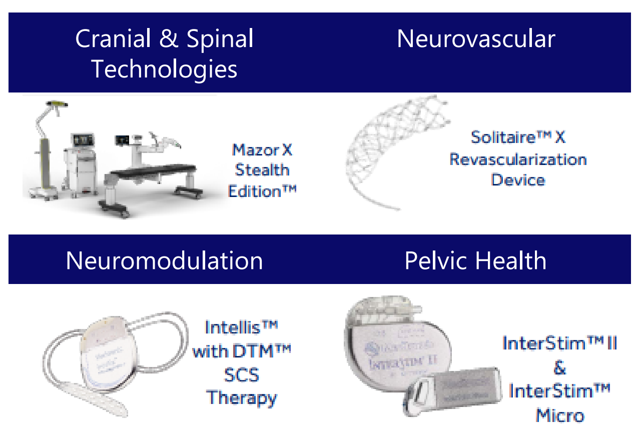
To begin, Medtronic's Cranial & Spinal Technologies segment focuses on the development and manufacturing of specialized devices and therapies for surgical technologies used in a wide variety of neuro procedures. This division also provides biologic solutions for both orthopedic and dental markets. Notably, Medtronic currently possesses a leadership position in the future of spine surgeries due to its Mazor X robotic guidance systems and many of its other platform technologies contributing to a growing Spine Surgery Ecosystem. Management expects this alone to contribute to multi-year share gains and revenue growth acceleration within this sub-segment.

Second, the company's Specialty Therapies segment is composed of the following operating units; Pelvic Health, Neurovascular, and Ear, Nose, and Throat (ENT). The company is determined to win share in each of these specialty spaces through expanding its current technologies into several new markets. For instance, Medtronic's InterStim Micro product line continues to take back share in the Pelvic Health space due to its competitive advantages of being 50% smaller than peers and being able to recharge 4x faster than any of the firm's closest competitors.

Finally, Medtronic's Neuromodulation segment focuses on the development and manufacturing of spinal cord simulation systems, implantable drug infusion systems, and interventional products. Some of the company's notable transformative innovations within this space include the introduction of BrainSense in Deep Brain Stimulation and DTM (differential target multiplexed) proprietary waveforms in Spinal Cord Stimulation.

EXHIBIT VIII

Products Best Positioned to Gain Share Across the Neuroscience Portfolio



Brand Strength and Competitive Position

The company's presence in the neuroscience industry dates back to 1983, when the company first expanded into neuro-simulation. Soon after, in 1999, Medtronic expanded into spinal care. The Global Neuroscience Market is rapidly expanding, with major

Segment Evaluation: Neuroscience Portfolio

players including Medtronic, Abbot Laboratories (due to its 2017 acquisition of St. Jude Medical), Boston Scientific, and Liva Nova. All of these prominent medical device companies specialize in the production of several technologies and therapies used in neuroscience procedures and have different positions within the various end-markets making up this space.

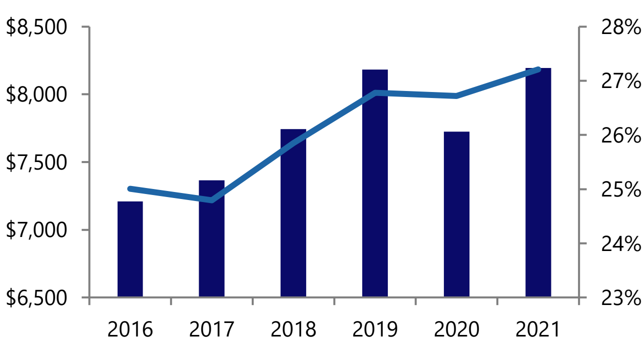
According to MedSuite research, Medtronic's closest competitor is Boston Scientific, who slightly fell behind Medtronic and was named the second-leading player in the broader US neurology device market for 2020. Medtronic also directly competes with both Abbott Laboratories and Liva Nova within the neuromodulation device market. Abbott specializes in deep brain stimulation, while Liva Nova is known more for its leadership in the vagus nerve stimulation market.

Overall, Medtronic's is evidently a market leader within the neuroscience industry due to two main reasons; the fortified ecosystem it has built within its spinal care segment, and the significant R&D investments the firm has made into advancing its AI and digital capabilities.

Within the Neuroscience space, Medtronic's capabilities span navigated surgery, planning, robotics, and implants. This provides the firm with high barriers to entry as according to Brett Wall, the EVP and President of Medtronic's Neuroscience Portfolio, it is much harder for smaller players to compete with Medtronic's broad spinal ecosystem as if a hospital uses Medtronic implants, they are more likely to use robotic systems from the same brand to ensure seamless integration. Secondly, Medtronic is expected to increase its absolute R&D spend for this segment to sustain its advantages in AI and digitization within the spinal care space. For instance, the company recently acquired Medicrea, which is a French pioneer in the transformation of spinal surgery through artificial intelligence (AI), predictive modelling, and patient specific implants. This strategic acquisition helped further enhance Medtronic's existing spinal care ecosystem and strengthens its position as a leading player within the neuroscience industry.

EXHIBIT IX

Neuroscience Sales ($M, % of MDT Total Sales)



Risks / Growth Opportunities

Risk: Poor Adoption of Robots in Surgical Markets

Only 15% of worldwide surgeries involve robotic assistance as of 2020 – increasing acceptance/adoption of such technologies are important for securing Medtronic's continued dominance within the neuroscience space.

Growth: Robust Spinal Care Ecosystem

With Medtronic's broad range of surgical capabilities and array of platform technologies, the company's scale enables it to continue witnessing immense growth and expansion into several new markets – while using its ecosystem as a robust and defensible competitive advantage.

Conclusion

In conclusion, Neuroscience is one of Medtronic's most promising areas for growth. Over the years, the company has diligently been broadening its scope within this segment both organically and inorganically. With adoption of AI still in its early stages within the surgical space, there are several opportunities for a broad medical-device player like Medtronic to steal share from other more traditional competitors.

Management Overview & Compensation

Executive Team

Currently, the Chief Executive Officer (CEO) and Chairman of Medtronic since April 2020 is Geoffrey S. Martha. Martha has been with the company since August 2011, taking on roles such as Executive Vice President of the Restorative Therapies Group before assuming the CEO position. Succession was smooth, as the prior CEO, Omar Ishrak, had led the company for nine years and wished to retire. After stepping down, Ishrak stayed as Chairman for nine months to watch the transition.

Other key executives include Karen L. Parkhill (CFO), Bradley E. Lerman (SVP) and Robert White (EVP). On average, the executive team has 9.5 years of experience with Medtronic, while the Board of Directors also has nine years of experience. Insider ownership adds up to ~1.4M shares (0.1% of common shares outstanding), which is minimal yet reasonable considering Medtronic's size. The CEO owns 95,836 shares, and CFO owns 88,362 shares; however, both have not added much to their positions.

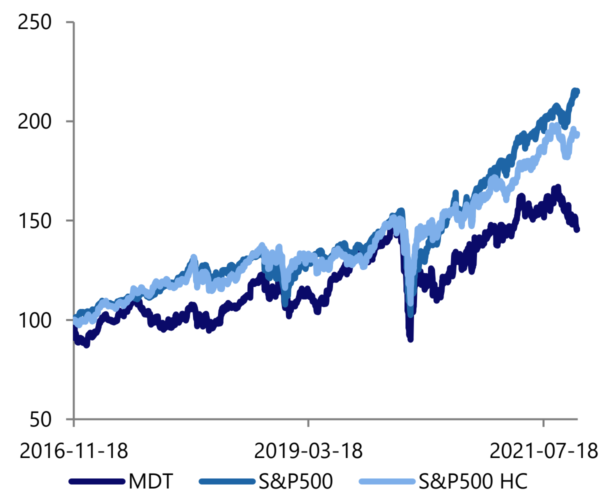
The new management team's vision for the next ten years is growth and profitability, resulting in an operating model shift in the past year. Emphasizing decentralization, Medtronic reorganized its four segments and divided each area into 20+ operating units to encourage less overlap and increased transparency. By increasing operating efficiency, management aims to change Medtronic's underperformance relative to the Healthcare sector. Indeed, this is true as, since 2016, Medtronic has returned 44% compared to its Healthcare peers (91%) and S&P 500 (114%).

Compensation Analysis

The underperformance in recent years is reasonable considering the average nature of Medtronic's compensation structure. Under the CEO's short-term awards, there is an 8% base salary and 12% short-term annual incentive. Compensation tied to long-term

EXHIBIT X

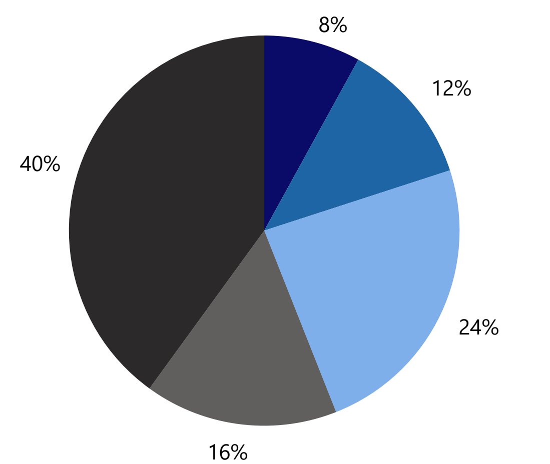
Medtronic Performance vs. HC Peers and S&P 500



Source(s): S&P Capital IQ

EXHIBIT XI

Executive Compensation Program Design (CEO)



Source(s): Company Proxy Statement

Management Overview & Compensation

goals comprises 24% of stock options, 16% of RSUs and 40% of PSUs. The NEO plan is similar to the CEO's.

The base salary aims to be +/- 15% of the median of a 27-peer group that Medtronic benchmarks itself to, which includes UnitedHealth, Danaher and Boston Scientific. However, the list also includes companies not in the healthcare sector, like Raytheon, Pepsi and IBM. The Compensation Committee and independent consultants annually evaluate this figure based on performance, expertise, and experience.

For annual incentives, the Compensation Committee takes advice from independent consultants to set payment at a +/- 15% range compared to peers. To receive the total incentive, metrics tracked are non-GAAP diluted EPS, revenue growth and free cash flow, each weighted at 33%. This is reasonable because Medtronic has traditionally struggled with revenue growth, and free cash flow and EPS ensure capital expenditures and margins are not sacrificed for growth. Market share is the fourth new metric in the future, and a qualitative scorecard will be the fifth. Specifically, this will analyze Medtronic's culture, inclusion, and diversity. Intentions are positive, but more information is required to ensure this is not a mechanism to make earning the total incentive easier.

Within the long-term incentive plan, PSUs are granted based on a three-year evaluation of Medtronic's performance. Revenue is the driving figure, as 50% of PSUs are based on meeting three-year average revenue growth. The remaining 50% is based on total shareholder return, calculated by dividing Medtronic's ending share price with the share price three years before. ROIC is a third variable; if the ROIC target is not achieved, there will be a 30% performance reduction. For the 2019-2021 period, the targeted revenue growth was 5%, total shareholder return was in the 50th percentile+, and ROIC was 13%. However, even though shareholder returns were the only metric met, the total payout percentage was 109%.

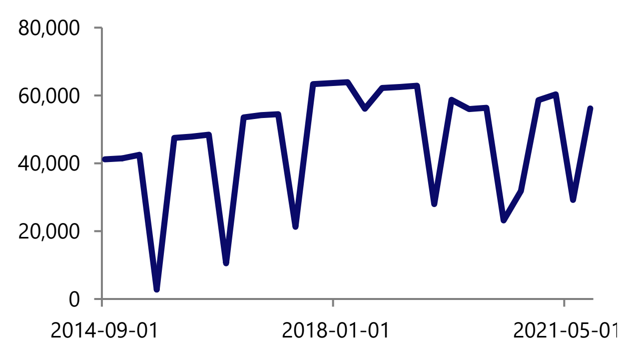
RSUs are evaluated on a three-year diluted EPS growth. Due to COVID-19, Medtronic missed its targets but since RSUs are "important for retention and COVID-19 was unexpected," Medtronic adjusted their EPS calculation upward. As a result, they exceeded the threshold required to vest, which we felt was a bit generous.

Options are the final long-term incentive component tied to stock price appreciation and shareholder value creation. However, options are not preferred since it discourages stock ownership. Where RSUs and PSUs make executives feel like business owners, stock options incentivize owners to focus on raising share prices and sell shares due to the tax on exercising options. Potentially, this is a reason for Medtronic's executive's lumpy ownership of shares, decreasing skin in the game.

Ultimately, while management has experience managing Medtronic stably, it is hard to have conviction in their compensation plan. In the past three years, Medtronic's shareholder return relative to its peer group has been in the upper quartile, but its revenue/EPS growth and ROIC have been in the bottom quartile. Yet, Medtronic's pay ranking is still around the middle of its peer group. Therefore, the HC Team would like to see slightly less weight on shareholder returns and a greater focus on business metrics.

EXHIBIT XII

Bradley Lerman (SVP)'s Share Ownership (Units)



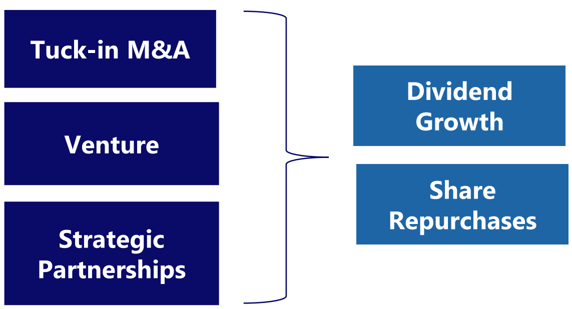
Source(s): Company Proxy Statement

Capital Allocation

Medtronic's capital allocation plan is focused on driving sustainable shareholder value over the long-term. The company has achieved 43 years of consecutive dividend increases and expects to deliver 80% or greater FCF conversion by the end of 2021.

EXHIBIT XIII

Medtronic's Investment (LHS) to Return (RHS) Framework



As seen in Exhibit XIII, Medtronic relies on a clear capital allocation framework to drive continuous company growth and better balance investments with the generation of shareholder return. Medtronic's approach towards capital allocation has always been balanced – reinvesting around 50% of capital into tuck-in M&A and its pipeline while reserving the rest for dividend growth and share repurchases. To keep up with changing market environments, the company believes that being an active acquirer and engaging in ventures with small private companies or third-party funders are all critical for differentiating Medtronic's portfolio and increasing the company's weighted-average market growth rate (WAMGR). Plus, share repurchases have also been deprioritized and are only used as a means of offsetting share dilution.

With the company's new organizational structure (which breaks down MDT segments into 20 agile and nimble operating units), capital allocation decisions will take place on both an enterprise and portfolio leader level – where capital will always be allocated towards

Brent Wall, the EVP and President of Medtronic's Neuroscience Portfolio, has consistently outlined the importance of focus in Medtronic's capital allocation strategy. Brent Wall believes in first determining a company's circle of competence, by determining the amount of pipeline projects that it can support financially, and then realigning teams to pursue these select pipeline opportunities to the best of their ability.

Medtronic's clear and focused capital allocation strategy has provided it with many long-term benefits.

Positive Mix Shift to Higher Margin Opportunities

A good sign regarding Medtronic's current and past capital allocation strategies is its consistent revenue mix shift towards more profitable growth segments with higher margin profiles. Traditionally, Medtronic started off as a cardiac and coronary device manufacturer, with operation in diabetes care, spinal fusion, and neurostimulation. Today, the company's diverse portfolio spans a wider range of faster-growing medical technology segments. With one of the company's key strategic priorities being to "put the "tech" in med-tech", this strongly aligns with shareholder interests as investments into more advanced segments helps re-position Medtronic to possess a more profitable revenue mix in the long-run.

Its continued expansion into emerging markets such as China and India contributes to this as well. 16% of the company's current revenues are from emerging markets (compared to 13% in 2016). With emerging markets consistently recording double digit growth, the company's increased focus towards deploying more capital into foreign market activity further aligns with shareholder interests.

This has accelerated the company's R&D capabilities with Medtronic achieving 230 regulatory approvals in 2020, well above some of its peers (Abbott Laboratories had only 11 products approved).

However, there are a few key red flags that must be assessed:

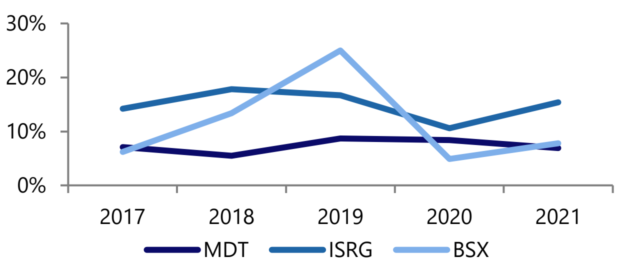
Capital Allocation

Stagnating ROIC

Medtronic has historically produced a ROIC hovering around 7% (which remains well above the company's average WACC of 4.71%). As seen in Exhibit XIV, the company's ROIC growth has remained relatively stable, and underwhelming relative to some of its peers.

EXHIBIT XIV

Historical ROIC Comparison



This is a significant concern for investors as a lack of improvement in returns per capital invested indicates poor capital efficiency. One cause for this may be the significant amount of goodwill which the company carries on its balance sheet. Goodwill alone accounts for more than 45% of Medtronic's total asset base.

This likely explains the company's poor return profile as a significant amount of its assets are intangible – which indicates significant purchase premiums that provide the company with limited tangible value.

Moreover, many of its peers such as Intuitive Surgical, possess a much narrower pipeline and more focused end-market strategies that enable it to achieve more returns per capital invested into the company. Given Medtronic's higher level of diversification, a smaller return value is expected given the larger scope of its operations.

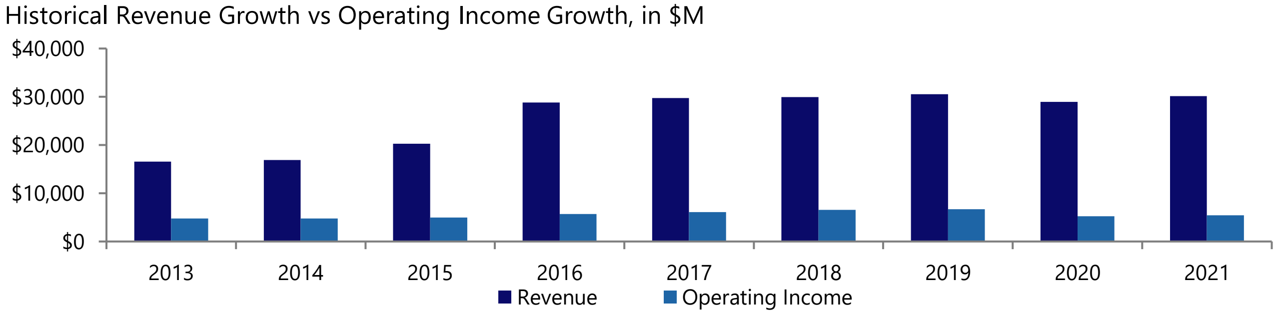
Another final driver for the company's low ROIC is its acquisition of Covidien in 2015. Covidien was acquired by Medtronic for $50 billion in 2015 and was an Irish-headquartered medical device manufacturer and global supplier of healthcare products. As seen in Exhibit XV, Medtronic's revenues shot up considerably following this acquisition. However, despite the surge in revenues it experienced in 2016, the company's operating income remained relatively flat over the past decade. The company's inability to convert a significant amount of its new revenues into operating profits leads investors to question the benefits of this acquisition decision.

Moreover, Medtronic's ROIC prior to this acquisition was 14% (in 2014), which dropped immediately to 5% in 2015). This significant fall in its return profile seems to indicate poor utilization/integration of Covidien's assets.

Although Medtronic's major rationale for engaging in this deal (which is its largest acquisition throughout history) centered around boosting its scope and "impacting the lives of more patients" around the.

EXHIBIT XV

Historical Revenue Growth vs Operating Income Growth, in $M



Capital Allocation

world, there was a lack of strategic focus. Covidien carried both "high-margin" and "low-margin" products, given its presence in both the medical devices and medical supplies industries, and created minimal value/synergies with Medtronic's focused and narrow pipelines at the time. Thus, the company eventually had to divest three of its business units (patient care, deep vein thrombosis, and nutritional insufficiency) in 2017 to boost its return profile.

Since then, the company's M&A strategy has developed greater focus with its tuck-in acquisitions being driven by acquiring specific technologies that complement its current offerings. Exhibit XVI outlines its major acquisitions in 2020, including Medicrea (which will help advance the companies AI & implant personalization capabilities), alongside Companion Medical (which specializes in smart insulin pens).

EXHIBIT XVI

Medtronic Acquisitions for 2020

Digital Surgery™	AI Driven Surgical Data
LAS Laser Associated Sciences	Non-Invasive Medical Devices
Avenu Medical	Endovascular AV Fistulae creator
Companion Medical	Smart Insulin Pen
Ai biomed	Thyroid Surgery Techthe
Stimgenics	DTM spinal cord stimulation
Medicrea	AI Spinal Surgery

However, it is also important to note that with most of the acquired private companies having key products or technologies that are still in early development, it could take Medtronic several years of additional R&D investments before it can gain any prominent returns on its investments.

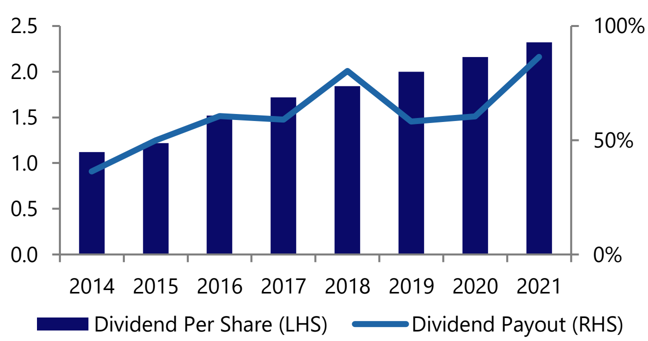
Unsustainable Dividend Payouts?

Despite underwhelming returns on its base business, the company is still considered a dividend aristocrat, with its payouts increasing year over year. However, its payout ratio has been increasing unsustainably at the cost of such dividend raises, leading to an 86.5% payout ration in 2021. Given that its target divided payout ratio was 40% from 2015 – 2019, this significant jump seems very unsustainable and causes investors to question whether returning so much of the company's earnings to shareholders is truly the company's best use of capital.

As seen in Exhibit XVII, since per share dividend growth has been growing in line with its dividend payout ratio, earnings seem to be growing at a much slower pace..

EXHIBIT XVII

Dividend Per Share ($) vs Dividend Payouts (%)



Conclusion

Overall, with stagnating ROIC and poor historical margin performance, the HC team lacks conviction in Medtronic's capital allocation. Despite its M&A strategy becoming more focused overtime, its dangerously high dividend payouts cause us to question company's priorities. Given how early stage many of its investments are, it may take some time for the company' to realize its capital allocation efforts in the form of bottom-line returns.

Valuation

Using an equally weighted combination of the perpetuity growth method and the exit multiple method, the calculated share price for MDT is $124.97.

The HC Team valued MDT through its four segments: Cardiac and Vascular, Medical Surgical, Neuroscience, and Diabetes. Due to the consensus from both management and analysts that the Cardiac and Vascular Group will continue to drive revenue growth for company, the team used an 8.0% YoY growth rate for the segment from 2022 top 2026. The Diabetes Group is also expected to see significant growth, leading the teams to project a 6.0% growth rate. The Medical Surgical and Neuroscience were assigned projected YoY growth rates of 3.0% and 5.0%, respectively.

While COVID-19 had a positive effect on 2020 top-line growth for several medical device companies, MDT did not experience these tailwinds, mainly because the company is not an active competitor in the Diagnostics space, which is the segment that grew significantly for most companies during the pandemic. Instead, MDT experienced a significant decline in revenue in 2020, but has already experienced strong recovery and is expected to achieve full recovery by FY2022.

Another key trend currently affecting the medical device industry is increased investments toward innovation. This trend affected the model as we grew R&D expense relative to revenue at a constant YoY rate, considering companies' increased R&D spending to drive innovation. As for other operational costs, the HC team conservatively projected future expenses by previous years' costs relative to revenue.

While Medtronic does trade at a discount relative to its peers, the intrinsic valuation of the stock led the HC team to the conclusion that the stock is still not trading at a good price relative to *its value*. Considering the stock's implied downside, the team does not have conviction in the name for the time being. That said, HC will continue to monitor MDT, in hopes of it dropping to a better price.

EXHIBIT XVIII

Terminal Growth Valuation	
Discount Rate	7.0%
Terminal Growth Rate	2.5%
PV Unlevered FCF	36,169
PV Terminal Value	135,371
Enterprise Value	**171,540**
(-) Debt	(25,964)
(+) Cash	3,004
Equity Value	**148,580**
Shares Outstanding	1346
Implied Share Price	**$110.40**
Current Share Price	$117.22
Implied Return / (Loss)	**(5.8%)**

EXHIBIT XIX

Exit Multiple Valuation	
Discount Rate	7.0%
Exit Multiple	21.3x
PV Unlevered FCF	36,169
PV Terminal Value	174,594
Enterprise Value	**210,763**
(-) Debt	(25,964)
(+) Cash	3,004
Equity Value	**187,803**
Shares Outstanding	1346
Implied Share Price	**$139.55**
Current Share Price	$117.22
Implied Return / (Loss)	**19.0%**

EXHIBIT XX

	Terminal Growth Rate				
WACC	1.0%	1.5%	2.0%	2.5%	3.0%
6.5%	$93.40	$102.18	$112.90	$126.31	$143.54
6.8%	$88.58	$96.48	$106.06	$117.89	$132.87
7.0%	$84.15	$91.31	$99.90	**$110.40**	$123.53
7.3%	$80.08	$86.59	$94.33	$103.71	$115.29
7.5%	$76.33	$82.26	$89.27	$97.68	$107.96

	Exit Multiple				
WACC	20.5x	21.0x	21.5x	22.0x	22.5x
6.5%	$138.15	$141.28	$144.41	$147.54	$150.66
6.8%	$136.32	$139.41	$142.50	$145.59	$148.67
7.0%	$134.52	$137.57	**$140.62**	$143.66	$146.71
7.3%	$132.74	$135.75	$138.76	$141.77	$144.78
7.5%	$130.99	$133.96	$136.94	$139.91	$142.88

EXHIBIT XXI

Medtronic

	Historical					Projected					
($ in millions)	**2017A**	**2018A**	**2019A**	**2020A**		**2021E**	**2022E**	**2023E**	**2024E**	**2025E**	**2026E**
Revenues											
Cardiac and Vascular	10,498	11,354	11,505	10,468		12,077	12,862	13,698	14,588	15,536	16,546
Medical Surgical	9,919	8,716	8,478	8,352		9,428	9,570	9,713	9,859	10,007	10,157
Neuroscience	7,366	7,743	8,183	7,725		8,915	9,272	9,643	10,029	10,430	10,847
Diabetes	1,927	2,140	2,391	2,368		2,294	2,408	2,529	2,655	2,788	2,927
Consolidated Revenues	**29,710**	**29,953**	**30,557**	**28,913**		**32,714**	**34,112**	**35,583**	**37,131**	**38,761**	**40,477**
% YoY Growth		*0.8%*	*2.0%*	*(5.4%)*		*13.1%*	*4.3%*	*4.3%*	*4.4%*	*4.4%*	*4.4%*
Cost of Revenues	(9,294)	(9,067)	(9,155)	(9,424)		(10,640)	(10,575)	(11,031)	(11,511)	(11,628)	(12,143)
Gross Profit	**20,416**	**20,886**	**21,402**	**19,489**		**22,074**	**23,537**	**24,552**	**25,620**	**27,133**	**28,334**
Gross Margin	*68.7%*	*69.7%*	*70.0%*	*67.4%*		*67.5%*	*69.0%*	*69.0%*	*69.0%*	*70.0%*	*70.0%*
SG&A	(10,018)	(10,238)	(10,418)	(10,109)		(10,292)	(11,381)	(11,872)	(12,240)	(12,622)	(13,019)
R&D	(2,193)	(2,256)	(2,330)	(2,331)		(2,975)	(3,180)	(3,400)	(3,637)	(3,891)	(4,165)
Amortization of intangible assets	(1,980)	(1,823)	(1,764)	(1,756)	(1,672)	(1,672)	(2,027)	(2,063)	(2,131)	(2,222)	(2,293)
Restructuring and other costs, net	(303)	(30)	(198)	(118)		(60)	(341)	(356)	(371)	(388)	(405)
Other operating expenses/income	(539)	101	(424)	(384)		(1,086)	(378)	(373)	(366)	(359)	(352)
EBIT	**5,383**	**6,640**	**6,268**	**4,791**		**5,988**	**6,230**	**6,489**	**6,875**	**7,651**	**8,100**
EBIT Margin	*18.1%*	*22.2%*	*20.5%*	*16.6%*		*18.3%*	*18.3%*	*18.2%*	*18.5%*	*19.7%*	*20.0%*
(-) Taxes	(578)	(2,580)	(547)	751		(479)	(810)	(844)	(894)	(995)	(1,053)
NOPAT	**4,805**	**4,060**	**5,721**	**5,542**		**5,509**	**5,420**	**5,645**	**5,982**	**6,656**	**7,047**
(+) D&A	2,956	2,696	2,737	2,762		3,075	3,207	3,345	3,490	3,644	3,805
(-) Capital Expenditures	(1,254)	(1,068)	(1,134)	(1,213)		(1,636)	(1,706)	(1,779)	(1,857)	(1,938)	(2,024)
(+/-) Change in NWC		357	(758)	992		(433)	(168)	(177)	(186)	(196)	(206)
Unlevered FCF	**6,507**	**6,045**	**6,566**	**8,083**		**6,516**	**6,753**	**7,035**	**7,430**	**8,166**	**8,622**
Discount Factor						0.97	0.90	0.84	0.79	0.74	0.69
PV Unlevered FCF						**6,299**	**6,102**	**5,940**	**5,863**	**6,022**	**5,943**

EXHIBIT XXII

Multiples Analysis

Company Name	Ticker	Price	Shares Outstanding	Market Cap (Millions)	Enterprise Value (Millions)	EV/EBITDA LTM	EV/EBITDA 2021E	EV/EBIT LTM	EV/EBIT 2021E	LTM EBITDA Margin	EV/Sales
Danaher Corporation	NYSE: DHR	$396.87	714.58	$283,597.68	$315,627.65	25.8x	24.5x	32.9x	31.3x	34.4%	11.2x
Abbott Laboratories	NYSE: ABT	$160.25	1768.29	$283,369.61	$294,640.50	18.8x	19.8x	26.3x	23.4x	29.2%	7.0x
Boston Scientific Corporation	NYSE: BSX	$51.84	1424.99	$73,868.35	$83,362.88	nmf	nmf	nmf	nmf	26.8%	7.3x
Agilent Technologies, Inc.	NYSE: A	$207.58	302.72	$62,838.65	$64,880.32	31.5x	27.9x	38.9x	29.7x	26.9%	10.6x
Zimmer Biomet Holdings, Inc.	NYSE: ZBH	$162.74	208.91	$33,997.66	$42,327.44	14.1x	12.9x	25.5x	15.3x	30.2%	5.4x
Mean		$195.86	883.90	$147,534.39		22.6x	21.3x	30.9x	24.9x	29.5%	8.3x
Median		$162.74	714.58	$73,868.35		22.3x	22.2x	29.6x	26.5x	29.2%	7.3x
Medtronic plc	NYSE: MDT	$117.22	1345.81	$157,755.85	$218,859.06	19.2x	17.1x	27.2x	18.7x	29.0%	6.9x

References

1. 2021 JP Morgan HC Conference
2. BusinessWire
3. Company Filings and Presentations
4. Company Proxy Statement
5. FDA
6. Forbes
7. Fortune Business Insights
8. GlobeNewswire
9. IBISWorld
10. Morningstar
11. Nasdaq
12. SmartTRACK Business Intelligence
13. S&P Capital IQ
14. Trefis