BEHIND
THE NUMBERS
Quality of Earnings Analysis

Jeff Middleswart
jmiddleswart@btnresearch.com

Bill Whiteside, CFA
bwhiteside@btnresearch.com

www.btnresearch.com

December 22, 2022

Behind the Numbers Medical Tech Review

Companies in the same industry typically utilize similar accounting methods and make similar non-GAAP adjustments. This makes a comparison between the group very informative. This report examines the relative earnings quality of five of the major med-tech companies with a focus on non-GAAP adjustments that are common to the industry as well as noting company-specific issues.

Index

The *"Company Summaries"* section below shows the findings for each company.

Boston Scientific Corporation (BSX) p. 2
Medtronic plc (MDT) p. 3
Edwards Lifesciences Corporation (EW) p. 6
Stryker Corporation (SYK) p. 8
Zimmer Biomet Holdings (ZBH) p.10

The *"Comparison of Industry-Common Earnings Quality Factors"* section includes data comparing all five companies on how much each company's non-GAAP earnings are distorted by adding back amortization of intangibles, restructuring charges, litigation and recall charges, and ongoing regulatory costs.

Current Accruals Analysis p.12
Add Back of Amortization of Intangibles p.14
Restructuring Charges p.21
Litigation, Recall, and Quality Remediation Costs p,23
Regulatory Costs p.25

Company Summaries

Boston Scientific Corporation (BSX)

Our current earnings quality rating of BSX is 3- (Minor Concern). We view the company's earnings quality as one of the weakest in the group given the size of its amortization adjustments, dependence on acquisitions, and rate of impairment charges. The company adds back one of the highest litigation expense adjustments in the group as well.

- BSX's cash flow conversion fell to a conspicuously low 22% in the trailing twelve months ended 9/22. This is well behind the rest of the group which is running between 60-90%. However, this was largely driven by a decline in accrued expenses driven by contingent consideration payments and accrued compensation which is less concerning than more discretionary accruals/reserves.

- BSX maintains a receivables factoring program under which it sells customer receivables to speed up cash collections. Usage of the program has not expanded recently as the amount sold but not collected has been trending down as sales increase. Factored receivable DSOs fell from 11.1 in 3Q21 to 9.3 in 3Q22. Still, higher rates could lead to a further reduction in program usage which could penalize cash flow growth in the next year. A one-day reduction in factored DSOs represents about a $35 million decline in cash flow.

- The company's non-GAAP adjustment for amortization of acquired intangibles as a percentage of non-GAAP pre-tax income is the second highest of the group at 28.5%. Acquisitions are a meaningful part of BSX's strategy which magnifies the distortion of adding back amortization expense. More concerning is the fact that BSX's recent history includes incurred write-offs totaling 6.5% of 2020 goodwill and over 3% of total assets. BSX's charge-off activity is concerning given how recent they are and the fact they do not focus on a single deal or technology. Adding back the amortization of these deals as well as the write-offs illustrates how unrealistic it is to ignore the costs of these acquisitions as if they were free.

- BSX incurs regular restructuring charges which have ranged from 4-11% over the last several years. Note that we did not include the company's "Acquisition/Divestiture-

Related charges in these amounts since they can include gains and losses and contingent consideration related to acquisitions and divestitures. However, there are often sizable expenses in this adjustment as well which further weakens the quality of reported earnings in our mind.

- The company's non-GAAP adjustments for litigation expense as a percentage of pre-tax income is the highest in the group, ranging from 6%-16% in the last couple of years. Litigation is an ongoing part of this business and we believe it is unrealistic to ignore it in assessing profitability.

- BSX has added back between 1.5% and 2.5% of pre-tax income to non-GAAP results over the last several quarters related to EU MDR regulations costs. Four of the five companies in the group choose to do this despite all five incurring such expenses.

Edwards Lifesciences Corporation (EW)

We are initiating earnings quality coverage of EW with a 5+ (Strong) and we view this company as having the highest quality of earnings in the group by a wide margin. While it adds back amortization expense to non-GAAP results, acquisitions have not been a meaningful part of its strategy so the distortion to adjusted earnings is a fraction of the rest of the group. It is also one of the few companies we see that does not add back restructuring charges to non-GAAP results.

- EW's past does not include nearly as much acquisition activity as others in the space. Therefore its goodwill and intangibles as a percentage of total assets is currently 16.5% versus around 60% for its peers. While EW does add back its amortization expense to non-GAAP results, the distortion amounts to less than 1% of non-GAAP profits versus 15-30% for the others. EW has incurred no impairment charges on intangibles in the last three years.

- Amazingly, EW does not add restructuring costs back to non-GAAP results like the overwhelming majority of all companies do. Case in point, the company recorded $67 million in "special charges" as a separate line on the income statement in the third quarter, but did not adjust non-GAAP results for the charge. These amounts were related to its decision to exit the *Harpoon* surgical mitral repair system and the write-off of the associated intangible technology assets.

- EW does add back litigation costs to non-GAAP results but recent amounts have amounted to only around 1.0-1.5% of pre-tax income. However, two years ago, did incur a $368 million settlement related to its transcatheter mitral and tricuspid repair products.

- Despite incurring costs associated with the EU's recent Medical Device Regulation rules like all the others in the group do, EW chooses to not add these costs back to non-GAAP earnings.

- The company received a Notice of Proposed Adjustment (NOPA) from the IRS in 2021 relating to transfer pricing on intercompany royalty transactions with Switzerland from 2015-2017 which could result in an increase in tax expense of $200 million. No accrual has been made for this amount.

- EW also disclosed that it notified the SEC in 2021 that it is voluntarily reviewing its business practices in Japan for potential violations of the Foreign Corrupt Practices Act.

Medtronic plc (MDT)

We currently rate MDT's earnings quality at 4+ (Acceptable). It does carry a sizeable goodwill and amortization and intangibles balances and its amortization adjustment is a meaningful portion of non-GAAP profits. However, much of its intangibles asset base resulted from its 2015 Covidien merger and ongoing acquisitions have not amounted to as large a portion of its assets compared to BSX or SYK.

- MDT's goodwill and intangibles as a percentage of assets is on par with SYK and ZBH at 60%. It has the third-highest amortization added back as a percentage of pre-tax earnings at 20.9%.

- The majority of MDT's goodwill and intangibles balances stem from its 2015 acquisition of Covidien. Acquisitions are not as meaningful as they are for BSX and SYK. Nevertheless, acquisitions are a part of MDT's strategy as evidenced by the $1.2 billion acquisition of Intersect ENT in May and the $900 million acquisition of Affera in August. This makes adding back amortization a distortion to non-GAAP earnings.

- MDT's impairment charges in the last three years amounted to 1.5% of its goodwill and amortization and 1% of total assets. By far the largest part of MDT's impairment in the last three years is related to its decision to exit the Medtronic HVAD Systems in the MCS unit.

- MDT adds back charges associated with its Enterprise Excellence and Simplification restructuring programs which have been in effect since 2018 and 2021, respectively. Both are supposed to wind down in the next couple of years which investors should be watching for. These charges have ranged between 4-11% on a trailing 12-month basis for the last several years and the company states that they include costs "such as salaries for employees supporting the program and consulting expenses." We are always skeptical of charges with such a broad definition that seem to require a large amount of subjectivity in determining what expenses are ongoing and what are truly one-time.

- An increase in adjusted other non-operating income added 1.5 cps. Most of this is due to higher interest income. This was integral to the 2 cps earnings beat in the quarter.

- Adjusted other operating income increased, adding 8.5 cps as a result of the company's hedging program. This is not an earning quality item as it is an offset to the hit the company is taking on sales.

- We note that receivables DSOs have increased more than 3 days YOY for the last two quarters. The current DSO level of 67.5 is not too out of line with historical experience, but the company stated in the 10-Q that there was "a decrease in cash collected from customers [which] was primarily related to the timing of sales, slower collections and supply chain challenges, as compared to the corresponding period in the prior fiscal year." This is concerning as it could be an indication sales were accelerated into the current quarter. The slowing collection time is also a negative sign for customer health.

- It is worth noting that while the Tax Court accepted the company's method of calculating intercompany royalty payments to Puerto Rico, it also determined that it should have paid a higher royalty rate which resulted in the company taking a $764 million charge.

Stryker Corporation (SYK)

We currently rate SYK's earnings quality a 3- (Minor Concern). SYK's amortization adjustment is a meaningful distortion of non-GAAP results, but not as large as BSX or ZBH. However, its restructuring charges relative to pre-tax earnings are the second-highest in the group.

- SYK's add back of amortization amounts to more than 15% of pre-tax non-GAAP profits.

- The company's recent acquisition history is as active as BSX's with cash spending on deals amounting to more than 20% of 2020 assets.

- Goodwill and intangibles amount to over 55% of the company's total assets, up from 40% in early 2020 driven largely by the $2,6 billion Vocera deal in 2022 and the $4.1 billion acquisition of Wright Medical in 2020. Acquisitions have been a significant part of SYK's recent growth plans and adding back the amortization is unrealistic, in our view.

- On a positive note, SYK has not incurred any material acquisition-related impairments in the last three years.

- SYK's adjustments for restructurings have been the second-highest in the group, ranging from 10-14% of non-GAAP pre-tax earnings on a trailing-12 basis in the last three years. The company stated that the charges include "costs associated with the termination of sales relationships in certain countries, workforce reductions, elimination of product lines, certain long-lived and intangible asset write-offs and impairments and associated costs and other restructuring-related activities."

  Also, note that adjustments in the 9/22 quarter included removing a $110 gain from reducing the fair value of contingent consideration related to the Mobius Imaging and Cardan Robotics deals. While this may be a benefit to GAAP earnings, it actually represents an acquisition underperforming original expectations.

- SYK adjusts non-GAAP earnings for regulatory and legal matters which the company defines as its "best estimate of the minimum of the range of probable loss to resolve certain regulatory or other legal matters and the amount of favorable awards from settlements." This amount can fluctuate between being positive or negative in any

particular quarter but has remained relatively low as a percentage of pre-tax non-GAAP income.

- An increase in non-GAAP Other Income largely from increased returns on investments. This added over 5 cps to earnings in the 9/22 quarter.

- The company warned that it lost its bid to be a volume-based procurement (VBP) supplier to China for spine products and it has exited that business. The neurovascular VBP bid occurs in the fourth quarter. Business in China represents 2.5% of company sales. The VBP bidding process has made doing business in China unprofitable.

- Materials and supplies inventories have spiked due to higher costs for electronics and supply chain delays. These higher costs have depressed cash flow as well.

Zimmer Biomet Holdings (ZBH)

We are downgrading our earnings quality rating of ZBH to a 3- (Minor Concern) from a 3+ (Minor Concern). ZBH has written of the second-largest percentage of its intangibles balances in the group over the last three years and more may be on the way. It also adds back the highest litigation/recall expenses and restructuring charges as a percentage of pre-tax income.

- ZBH's goodwill and intangibles balances are about 60% of total assets which is in line with most of the others. However, the bulk of its goodwill stems from its $12 billion merger with LVB (Biomet) in 2015.

- Its recent acquisition activity has been relatively muted with cash spending on acquisitions amounting to less than 1% of 2020 assets, the lowest in the group.

- ZBH has recorded multiple large impairments in the last couple of years, writing off 4.1% of its 2020 goodwill and intangibles and 2.7% of its assets in the last three years. These write-offs largely center around its EMEA reporting unit and its dental business which experienced difficulties during COVID prompting an increase in the discount rate used to calculate fair value. The company warned in its 2021 10-K that the fair value of assets in its America CMFT unit worth $290 million exceeded carrying value by only 5%. Rates have only increased since then which may increase the risk of another impairment soon.

- ZBH adjusts non-GAAP earnings for "Restructuring and Other Cost Reduction Initiatives", Acquisitions, Integration and Related" costs, "Inventory and Manufacturing-Related Charges," and "Other Charges." The company defines its "Other Charges" category as follows:

  > *"We have incurred other various expenses from specific events or projects that we consider highly variable or that have a significant impact to our operating results that we have excluded from our non-GAAP measures. These include costs related to legal entity, distribution and manufacturing optimization, including contract terminations, and gains and losses from changes in fair value on our equity investments including our investment in ZimVie."*

  Altogether, these charges have amounted to 8-24% of non-GAAP pre-tax earnings over the last few years. Their ongoing nature and broad definition make it more likely, in our

opinion, that they could include expenses that should be viewed as operating in nature which are being ignored by non-GAAP earnings.

- ZBH adjusts non-GAAP earnings for both litigation costs and quality remediation costs related to its FDA warning letter at one of its production facilities. These two amounts have ranged from 9-15% of pre-tax non-GAAP income in the last few years, the highest in the group.

- ZBH disclosed in the 9/22 10-Q that it recorded an out-of-period adjustment related to its receivables being overstated by $10.4 million as it recorded a receivable related to the ZimVie spin-off which it “should not have expected to receive a payment.” The company concluded that this adjustment “was not material to the interim condensed financial statement for with the current of prior periods” despite the overstatement amounting to about 4 cps.

Comparison of Industry-Common Earnings Quality Factors

Current Accruals Analysis

Balance sheet accruals are a great place to get a big-picture look at overall earnings quality within a group. However, we always caution that a ratio alone should be used as nothing more than a jumping-off place and more digging is required to get the real story behind any change.

The following table shows the year-over-year change in net operating assets as a percentage of average total assets for each company over the last four quarters. Note that the higher the percentage, the more recent earnings have relied on non-cash accruals which weakens their quality.

Current Net Operating Accrual Ratio (year-over-year)

	Q-0	Q-1	Q-2	Q-3
BSX	2.37%	2.59%	0.00%	0.06%
EW	1.23%	-1.21%	-1.84%	-1.43%
MDT	1.18%	0.95%	0.65%	1.08%
SYK	2.46%	2.41%	0.78%	0.15%
ZBH	-0.65%	0.13%	-0.28%	1.75%

Observations:

BSX

BSX has had one of the highest accruals in the group in the last year. Accruals jumped in the June quarter which can be traced mostly to a decline in legal reserves and falling contingent consideration. This represents cash payments that were made in recent periods from reserves that were established in prior periods via expensing. However, BSX adds both acquisition payments and legal accruals back to non-GAAP earnings so these expenses have never been reflected in non-GAAP results. We will examine this more closely in the next sections.

EW

EW typically has one of the lower accrual levels in the group. However, accruals jumped in the September quarter which was largely traceable to a jump in inventories and a decline in accrued compensation. This is not as alarming as declines in more discretionary reserve accounts.

MDT

MDT's accruals have been relatively stable although the number has seen some upward pressure from rising inventories as well as a jump in receivables which we highlighted above.

SYK

SYK has had one of the highest levels of accruals in the group over the last year next to BSX. However, much of the increase in the jump in accruals in the March quarter is a result of an acquisition that drove up assets more than liabilities and is making accruals appear higher than they actually were. Note that we rate SYK's earning quality as one of the weakest in the group given its extensive non-GAAP adjustments which we will focus on below.

ZBH

The data shows that ZBH has one of the lowest levels of accruals in the group. However, this is being skewed by the company's sale of its spine and dental business in the 3/22 quarter which is making accruals appear smaller than they really were. It is also worth noting that the company explained in its analysis of the liquidity section of its 2021 10-K that in 4Q20, it terminated its receivables securitization facility which put pressure on operating cash flow during 2021. The normalization of the cash collection cycle has been a tailwind to 2022 receivables and cash flow growth. Both of these factors make accruals and cash flow conversion data fairly useless in assessing the company's earnings quality-for now. However, as we show below, the company's large adjustments it makes to non-GAAP earnings give cause us to rate ZBH's earnings quality one of the weakest in the group.

Adding Back of Amortization of Acquired Intangibles

Most of these companies have substantial amounts of goodwill and intangible assets on their balance sheets as a result of past acquisitions. Also, all of them add back the amortization of intangible assets to their non-GAAP earnings. To assess how much this adjustment distorts each company's earnings, we will take the following factors into account:

- Amount of goodwill and intangibles relative to total assets
- The amount of the amortization added back relative to non-GAAP pre-tax income
- Recent impairment charges
- How much their growth depends on acquisitions

The following three tables show goodwill, intangibles, and the total of the two as a percentage of assets for each company:

Table 1

Goodwill and Intangibles % of Assets

	Q-0	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6	Q-7
BSX	59.2%	59.7%	60.4%	56.2%	56.6%	53.5%	54.6%	51.6%
EW	16.5%	17.6%	17.7%	17.5%	18.3%	19.6%	20.8%	20.8%
MDT	60.1%	62.4%	61.7%	62.6%	63.4%	63.8%	64.1%	62.1%
SYK	55.7%	56.5%	57.2%	51.3%	52.6%	53.6%	54.3%	53.4%
ZBH	65.3%	66.1%	66.1%	61.6%	65.3%	65.6%	66.7%	66.8%

Table 2

Goodwill % of Assets

	Q-0	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6	Q-7
BSX	40.2%	40.0%	40.0%	37.2%	37.1%	34.9%	35.2%	32.3%
EW	13.4%	13.8%	13.9%	13.7%	14.3%	15.3%	16.2%	16.2%
MDT	43.3%	44.8%	44.5%	45.0%	45.4%	45.4%	45.1%	43.3%
SYK	41.7%	41.9%	42.1%	37.3%	37.8%	38.0%	38.3%	37.2%
ZBH	41.2%	41.3%	41.2%	38.0%	38.4%	38.2%	38.4%	37.9%

Table 3

Intangibles % of Assets

	Q-0	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6	Q-7
BSX	19.0%	19.7%	20.4%	19.0%	19.5%	18.6%	19.4%	19.2%
EW	3.1%	3.8%	3.8%	3.8%	4.0%	4.3%	4.6%	4.6%
MDT	16.8%	17.5%	17.1%	17.5%	18.0%	18.4%	19.1%	18.8%
SYK	14.0%	14.6%	15.0%	14.0%	14.8%	15.6%	16.1%	16.2%
ZBH	24.1%	24.7%	24.9%	23.6%	26.9%	27.4%	28.3%	28.9%

Table 4

T12 Amortization Add Backs % of Non-GAAP Pre-tax Income

	Q-0	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6	Q-7
BSX	28.0%	28.1%	28.1%	28.6%	32.7%	35.2%	47.5%	53.0%
EW	0.4%	0.4%	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%
MDT	20.9%	20.9%	20.1%	20.4%	21.0%	22.3%	26.1%	32.5%
SYK	15.2%	14.7%	14.3%	15.2%	15.0%	14.3%	16.4%	14.6%
ZBH	31.5%	31.0%	32.5%	33.0%	32.2%	32.7%	42.4%	42.4%

Table 5

Quarterly Cash Spent on Acquisitions

	Q-0	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6	Q-7	Q-8	Q-9	Q-10	Q-11	Q-12
BSX	$71		$1,471	$244	$1,308		$706			$3			$3,619
EW	$52	$56		$11		$6				$10			
MDT	$676	$1,191			$91		$18	$606	$370		$289		$56
SYK			$2,563	$113	$122	$77	$27	$4,196		$3	$23	$521	$21
ZBH		$100		$8								$37	

Table 6

	36-month Cash for Acquis.	% of 2020 Assets
BSX	$7,422.0	24.1%
EW	$135.0	1.9%
MDT	$3,295.0	3.4%
SYK	$7,666.0	22.3%
ZBH	$145.3	0.6%

Table 7

Goodwill/Intangible Asset Impairment Charges

	Q-0	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6	Q-7	Q-8	Q-9	Q-10
BSX	$125.0	$7.0		$197.0	$128.0	$45.0		$81.0	$219.0	$34.0	$198.0
EW											
MDT	$24.0	$74.0				$726.0	$76.0				
SYK											
ZBH		$3.0				$16.3				$33.0	$612.0

Table 7

	36-month Impairments	% of 2020 Goodwill	% of 2020 Assets
BSX	$1,034.0	6.5%	3.4%
EW	$0.0	0.0%	0.0%
MDT	$900.0	1.5%	0.9%
SYK	$0.0	0.0%	0.0%
ZBH	$664.3	4.1%	2.7%

BSX

- BSX has the second-highest amortization add-back percentage courtesy of its having the second-highest intangibles balance as a percentage of total assets (Table 1).

- Acquisitions are a meaningful part of BSX's strategy which magnifies the distortion of adding back amortization expense. The company's cash spent on acquisitions in the last three years amounted to 24% of 2020 assets, the highest in the group (Table 6). So far in 2022, BSX has closed the $1.5 billion Bayliss deal. 2021 included $1 billion for Preventice with a potential $300 million in contingency payments, the $450 million Farapulse deal with $125 million in contingency payments, and the Lumenis deal for which it paid $1 billion. Similar amounts were paid for deals in 2020, and 2019 included $3.6 billion spent on the BTG acquisitions.

- More concerning is the fact that BSX's recent history includes incurred write-offs totaling 6.5% of 2020 goodwill and intangibles, the highest in the group (Table 7). Consider the company's explanation of the recent impairment charges:

  "The impairment charges recorded in the third quarter and first nine months of 2022 were primarily associated with amortizable technology-related intangible assets that were initially established following our acquisition of Vertiflex, Inc., which was integrated into our Neuromodulation business, resulting from lower revenue projections due to reimbursement challenges.

  The impairment charges recorded in the third quarter and first nine months of 2021 were primarily associated with amortizable technology-related intangible assets that

> *were initially established following our acquisition of VENITI, Inc., which was integrated into our Peripheral Interventions business. These charges resulted from management's decision to discontinue commercialization of the VICI VENOUS STENT™ System following a voluntary recall, due to cost to remediate and time to return to market. In addition, during the third quarter of 2021, we determined it was more likely than not that the IPR&D assets established in connection with our acquisition of Millipede, Inc. were impaired based on our qualitative assessment of impairment indicators. We tested the asset for recoverability and recorded an impairment charge associated with the incremental time and cost required to complete the mitral valve IPR&D program. We subsequently cancelled the program and recorded an impairment for the remaining value during the fourth quarter of 2021."*

Also, consider management's discussion regarding the 2020 charges from its 2021 10-K:

> *"In 2020, our Intangible asset impairment charges were $460 million, primarily associated with intangible assets established in connection with our acquisitions of Sadra Medical, Inc., Apama Medical Inc. and nVision Medical Corporation (nVision). Each of these impairment charges were recorded following management's decision to cancel the programs due to the length of time, and remaining cost, to complete and commercialize the technology; the cost to remediate quality issues; or, specific to nVision, our understanding of the clinical evidence necessary to commercialize the technology."*

BSX's charge-off activity is concerning given how recent the charges are and the fact they do not focus on a single deal or technology. Adding back the amortization of these deals as well as the write-offs illustrates how unrealistic it is to ignore the costs of these acquisitions as if they were free.

EW

- EW's past does not include nearly as much acquisition activity as others in the space. Therefore its goodwill and intangibles as a percentage of total assets is currently 16.5% versus around 60% for its peers (Table 1).

- While EW does add back its amortization expense to non-GAAP results, the distortion amounts to less than 1% of non-GAAP profits versus 15% to 30% for the others (Table 4).

- EW has incurred no impairment charges on intangibles in the last three years.

MDT

- MDT's goodwill and intangibles as a percentage of assets is on par with SYK and ZBH at 60%. It has the third-highest amortization added back as a percentage of pre-tax earnings at 20.9% (Table 4).

- The majority of MDT's goodwill and intangibles balances stem from its 2015 acquisition of Covidien. Acquisitions are not as meaningful as they are for BSX and SYK with total cash spent on acquisitions in the last three years just over 3% of 2020 assets versus 20%+ for BSX and SYK (Table 6). Nevertheless, acquisitions are a part of MDT's strategy as evidenced by the $1.2 billion acquisition of Intersect ENT in May and the $900 million acquisition of Affera in August. This makes adding back amortization a distortion to non-GAAP earnings.

- MDT's impairment charges in the last three years amounted to 1.5% of its goodwill and amortization and 1% of total assets. By far the largest part of MDT's impairment in the last three years is related to its decision to exit the Medtronic HVAD Systems in the MCS unit.

SYK

- The company's non-GAAP adjustment for amortization of intangibles amounts to more than 15% of pre-tax non-GAAP income (Table 4).

- SYK's recent acquisition history is as active as BSX's with cash spending on deals amounting to more than 20% of 2020 assets (Table 6). This includes the 2/22 acquisition of Vocera for $3 billion and the 2020 acquisitions of Wright Medical and OrthoSensor.

- Its goodwill and intangibles amount to over 55% of total assets, up from 40% in early 2020 driven largely by the $2,6 billion Vocera deal in 2022 and the $4.1 billion acquisition of Wright Medical in 2020. Acquisitions have been a significant part of SYK's recent growth plans and adding back the amortization is unrealistic, in our view.

- On the positive side, SYK has not incurred any material acquisition-related impairments in the last three years although it did record some intangible and IPR&D write-offs related to Covid in 2021 which it included in "restructuring and related charges."

ZBH

- ZBH's goodwill and intangibles balances are about 60% of total assets which is in line with most of the others (Table 1). However, the bulk of its goodwill stems from its $12 billion merger with LVB (Biomet) in 2015.

- Its recent acquisition activity has been relatively muted with cash spending on acquisitions amounting to less than 1% of 2020 assets, the lowest in the group (Table 6).

- ZBH has recorded multiple large impairments in the last couple of years, writing off 4.1% of its 2020 goodwill and intangibles and 2.7% of its assets in the last three years. These write-offs largely center around its EMEA reporting unit and its dental business which experienced difficulties during COVID prompting an increase in the discount rate used to calculate fair value. The company warned in its 2021 10-K that the fair value of assets in its America CMFT unit worth $290 million exceeded carrying value by only 5%. Rates have only increased since then which may increase the risk of another impairment soon.

Restructuring Charges

Readers know our aversion to companies that regularly incur large, mostly cash charges related to improving operations and then add them back to adjusted earnings as if they never happened. Unfortunately, all but one of these companies regularly incur such charges. The following table shows restructuring charges as a percentage of non-GAAP pre-tax earnings for all five:

T12 Restructuring Charges % of Non-GAAP Pre-tax Income

	Q-0	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6	Q-7
BSX	4.9%	6.0%	6.3%	7.3%	10.0%	9.5%	11.6%	11.4%
EW	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MDT	4.2%	4.0%	3.9%	4.5%	5.6%	7.2%	9.0%	10.9%
SYK	10.1%	12.9%	11.7%	9.7%	9.6%	5.9%	13.1%	14.2%
ZBH	23.7%	21.7%	18.3%	12.2%	10.0%	8.7%	12.1%	14.6%

- BSX incurs regular restructuring charges which have ranged from 4% to 11% over the last several years. Note that we did not include the company's "Acquisition/Divestiture-Related charges in these amounts which can include gains and losses and contingent consideration related to acquisitions and divestitures. However, there are often sizable expenses in this adjustment as well which further weakens the quality of reported earnings in our mind.

- Amazingly, EW does not add restructuring costs back to non-GAAP results like the overwhelming majority of all companies do. Case in point, the company recorded $67 million in "special charges" as a separate line on the income statement in the third quarter, but did not adjust non-GAAP results for the charge. These amounts were related to its decision to exit the Harpoon surgical mitral repair system and the write-off of the associated intangible technology assets.

- MDT adds back charges associated with its *Enterprise Excellence* and *Simplification* restructuring programs which have been in effect since 2018 and 2021, respectively. Both are supposed to wind down in the next couple of years which investors should be watching for. These charges have ranged between 4% to 11% on a trailing 12-month basis for the last several years and the company states that they include costs "such as

salaries for employees supporting the program and consulting expenses." We are always skeptical of charges with such a broad definition that seem to require a large amount of subjectivity in determining what expenses are ongoing and what are truly one-time.

- SYK's adjustments for restructurings have been the second-highest in the group, ranging from 10-14% of non-GAAP pre-tax earnings on a trailing-12 basis in the last three years. The company states that the charges include "costs associated with the termination of sales relationships in certain countries, workforce reductions, elimination of product lines, certain long-lived and intangible asset write-offs and impairments and associated costs and other restructuring-related activities."

  Also, note that adjustments in the 9/22 quarter included removing a $110 gain from reducing the fair value of contingent consideration related to the Mobius Imagin and Cardan Robotics deals. While this may be a benefit to GAAP earnings, it actually represents an acquisition underperforming original expectations.

- ZBH adjusts non-GAAP earnings for "Restructuring and Other Cost Reduction Initiatives", Acquisitions, Integration and Related" costs, "Inventory and Manufacturing-Related Charges," and "Other Charges." The company defines its "Other Charges" category as follows:

  > *"We have incurred other various expenses from specific events or projects that we consider highly variable or that have a significant impact to our operating results that we have excluded from our non-GAAP measures. These include costs related to legal entity, distribution and manufacturing optimization, including contract terminations, and gains and losses from changes in fair value on our equity investments including our investment in ZimVie."*

  Altogether, these charges have amounted to 8-24% of non-GAAP pre-tax earnings over the last few years. Their ongoing nature and broad definition make it more likely, in our opinion, that they could include expenses that should be viewed as operating in nature which are being ignored by non-GAAP earnings.

Adding Back Litigation, Recall, and Quality Remediation Costs

Unfortunately, getting sued is part of any medical-related business. Regardless, all of these companies ask investors to add back these regular costs to their non-GAAP results. Likewise, no matter how careful a company is, it will invariably encounter problems with its products after they have been released on the market which will necessitate recalls. For some, these costs may not be material. But for others, they are not only material, they seem to happen with an alarming degree of regularity. We believe it is a distortion of economic reality to add these regularly recurring expenses back to profits.

The following table shows the non-GAAP adjustments for both litigation, recall, and quality remediation costs added back as a percentage of non-GAAP pre-tax earnings for all five companies:

T12 Litigation/Recall/Quality Remediation

	Q-0	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6	Q-7
BSX	6.0%	6.1%	15.9%	16.6%	14.1%	27.0%	17.3%	18.7%
EW	1.1%	1.5%	1.3%	1.3%	1.1%	1.4%	29.4%	30.2%
MDT	0.4%	0.8%	1.1%	1.1%	2.2%	2.9%	1.7%	2.8%
SYK	2.0%	1.8%	3.4%	2.3%	2.4%	2.3%	1.2%	0.8%
ZBH	12.5%	15.0%	15.9%	14.7%	9.3%	7.7%	9.4%	14.9%

BSX

- BSX's litigation costs are currently elevated as a result of legal and recall problems related to its transvaginal surgical mesh products giving it the highest non-GAAP adjustments as a percentage of pre-tax earnings.

EW

- EW does add back litigation costs to non-GAAP results but recent amounts have amounted to only around 1.0-1.5% of pre-tax income. However, two years ago, did incur a $368 million settlement related to its transcatheter mitral and tricuspid repair products.

MDT

- MDT has been facing ongoing litigation related to its pelvic and hernia mesh products. These amounts have fallen to under 1% of non-GAAP pre-tax profits which is one of the smallest percentages in the group.

SYK

- SYK adjusts non-GAAP earnings for regulatory and legal matters which the company defines as its “best estimate of the minimum of the range of probable loss to resolve certain regulatory or other legal matters and the amount of favorable awards from settlements.” This amount can fluctuate between being positive of negative in any particular quarter but has remained relatively low as a percentage of pre-tax non-GAAP income.

ZBH

- ZBH adjusts non-GAAP earnings for both litigation costs and quality remediation costs related to its FDA warning letter at one of its production facilities. These two amounts have ranged from 9-15% of pre-tax non-GAAP income in the last few years, the highest in the group.

Adding Back Regulatory Costs

In 2017, the European Union passed its new Medical Device Regulation (EU MDR) which replaced its older directive. It called for new products released after 2021 to comply with new safety and labeling requirements and for already approved products to comply by 2024. All of these companies have incurred significant costs over the years and will likely continue to for the foreseeable future. Despite all of them warning in the risks and contingency sections of their 10-Ks that such new and expanding regulatory costs are a part of doing business, all but one of these companies add their EU MDR and other regulatory costs back to non-GAAP profits as shown below:

T12 Regulatory Matters % Non-GAAP Pre-tax Income

	Q-0	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6	Q-7
BSX	2.4%	2.2%	2.0%	1.9%	2.0%	1.9%	2.2%	1.9%
EW								
MDT	1.5%	1.4%	1.2%	1.1%	1.1%	1.1%	1.2%	1.4%
SYK	3.3%	3.0%	2.8%	2.6%	2.3%	2.0%	2.3%	2.5%
ZBH	3.1%	2.9%	2.9%	2.6%	1.9%	1.4%	1.5%	1.8%

While EW is faced with the same EU MDR expenses, it does not currently add back these expenses to its non-GAAP results. This clearly illustrates that the world of non-GAAP adjustments is not clear-cut and involves management’s discretion as to how aggressive or conservative they want their earnings presentations to be.

Explanation of EQ Rating Scale

6- (Exceptionally Strong)- Indicates uncommonly conservative accounting policies to the point that revenue and earnings are essentially understated relative to the company's peers. Higher possibility of reporting positive earnings surprises

5 (Strong)- Indicates the company has no areas of concern with its reported results and we see very little risk of the company disappointing due to recent results being overstated from aggressive reporting in recent periods.

4 (Acceptable)- Indicates the company may have exhibited a minor "red flag", but the severity of the issue is not yet a concern. Minimal risk of an earnings disappointment resulting from previous earnings or cash flow overstatement

3 (Minor Concern)- Indicates the company has exhibited either a larger number of or more serious warning signs than companies receiving a 4. The likelihood of an immediate earnings or cash flow disappointment is not considered to be high, but the signs mentioned deserve a higher degree of attention in the future.

2 (Weak) Indicates the company's recently reported results have benefitted materially from aggressive accounting. Follow up work should be performed to determine the nature and extent of the problem. There is a possibility that upcoming results could disappoint as the impact of unsustainable benefits disappears.

1 (Strong Concern)- Indicates that the company's recent results are significantly overstated and that we view a disappointment in upcoming quarters is highly likely

In addition to the numerical rating, the EQ Review Rating also include either a minus or plus sign. A minus sign indicates that our analysis shows the overall earnings quality of the company has worsened since the last review and there is a possibility the numerical rating will fall should the problem continue into upcoming quarters. Likewise, a positive sign indicates that the overall earnings quality is improving, and the company may see an upgrade in its numerical rating should the trend continue.

Key Points to Understand About the EQ Score

The EQ Review Rating is much more than a blind, quantitative scoring method. While we utilize proprietary adjustments, ratios, and methods developed over decades of earnings quality analysis, the foundation of all of our analysis is reading recent SEC filings, press releases, conference call transcripts and in some cases, conversations with managements.

The EQ Review Rating is not comparable to a traditional buy/sell rating. The Rating is intended to specifically convey the extent to which reported earnings may be over/understated. Fundamental factors such as forecasts for future growth, increasing competition, and valuation are not reflected in the rating. Therefore, a high score does not in itself indicate a company is a buy but rather indicates that recent results are a good indication of the underlying earnings and cash generation capacity of the company. A low score (1-2) will likely result in us performing a more thorough review of fundamental factors to determine if the company warrants a full-blown sell recommendation.

Disclosure

Behind the Numbers, LLC is an independent research firm structured to provide analytical research to the financial community. Behind the Numbers, LLC is not rendering investment advice based on investment portfolios and is not registered as an investment adviser in any jurisdiction. All research is based on fundamental analysis using publicly available information including SEC filed documents, company presentations, annual reports, earnings call transcripts, as well as those of competitors, customers, and suppliers. Other information sources include mass market and industry news resources. These sources are believed to be reliable, but no representation is made that they are accurate or complete, or that errors, if discovered, will be corrected. Behind the Numbers, LLC does not use company sources beyond what they have publicly written or discussed in presentations or media interviews. Behind the Numbers does not use or subscribe to expert networks. All employees are aware of this policy and adhere to it.

The authors of this report have not audited the financial statements of the companies discussed and do not represent that they are serving as independent public accountants with respect to them. They have not audited the statements and therefore do not express an opinion on them. Other CPAs, unaffiliated with Mr. Middleswart, may or may not have audited the financial statements. The authors also have not conducted a thorough "review" of the financial statements as defined by standards established by the AICPA.

This report is not intended, and shall not constitute, and nothing contained herein shall be construed as, an offer to sell or a solicitation of an offer to buy any securities referred to in this report, or a "BUY" or "SELL" recommendation. Rather, this research is intended to identify issues that investors should be aware of for them to assess their own opinion of positive or negative potential.

Behind the Numbers, LLC, its employees, its affiliated entities, and the accounts managed by them may have a position in, and from time-to-time purchase or sell any of the securities mentioned in this report. Initial positions will not be taken by any of the aforementioned parties until after the report is distributed to clients, unless otherwise disclosed. It is possible that a position could be held by Behind the Numbers, LLC, its employees, its affiliated entities, and the accounts managed by them for stocks that are mentioned in an update, or a BTN Thursday Thoughts.