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Stryker (SYK)EQ Review Update-9/18 Quarter

Current EQ Rating*	Previous EQ Rating
3-	4-

*For an explanation of the EQ Review Rating scale, please refer to the end of this report

We are lowering our rating on Stryker (SYK) to 3- (Minor Concern) from 4- (Acceptable.)

- Contract liabilities (deferred revenue) continued to decline sequentially, falling by $56 million from the 6/18 quarter. While we still do not have a year-over-year number to compare to, such a sharp decline is always a concern as it could be an indication that there was an unusual acceleration of the recognition of deferred revenue in the quarter.

- Inventory has been growing faster than sales for the last several quarters as the company is at the beginning of a new product cycle which requires a buildout of new inventory. However, inventory DSIs are now well over 200 days and we will be concerned if we do not see inventory growth fall back in line in upcoming quarters.

It is worth noting that our cut in rating to a 3- rather than a 3+ does not indicate a large increase in our concern level but rather an indicates that there was a deterioration in our view of the earnings quality in the quarter.

Contract Liabilities Continue to Trend Down

We noted in our review of the 6/18 quarter that SYK's contract liabilities (deferred revenue) were lower in the 6/18 quarter than the 12/17 quarter. This is a new disclosure related to

ASC 606, so we still do not have a year-over-year comparison. However, the sequential decline in contract liabilities continued into the 9/18 quarter:

	9/30/2018	6/30/2018	3/31/2018	12/31/2017
Contract Liabilities	$281	$337	NA	$381

Consider SYK's explanation of its contract liabilities in its 10-Q filings:

> *"Our contract liabilities arise as a result of unearned revenue received from customers at inception of contracts for certain businesses or where the timing of billing for services precedes satisfaction of our performance obligations. We generally satisfy performance obligations within one year from the contract inception date."*

The company's explanation of its revenue recognition policies indicates that revenues are generally recognized when a purchase order has been received and control has transferred for almost all of its product lines. However, it states the following with regard to its MedSurg segment:

> *"Substantially all MedSurg sales are recognized when a purchase order has been received and control has transferred.* ***For certain Endoscopy, Instruments and Medical services, we may recognize sales over time as we satisfy performance obligations that may include an obligation to complete."***

MedSurg sales account for about 45% of total sales and all the major components were showing healthy growth for the nine months ended 9/18 (Instruments-8.6%, Endoscopy-12.8%, Medical-6.7%). Therefore, the sudden sequential decline in contract liabilities is a concern as it could be an indication that revenue in the current quarter benefitted from an accelerated recognition of previously deferred revenue. We will continue to monitor this going forward.

Inventory Has Been Building

As a medical products producer, SYK must carry a large inventory of expensive products in various sizes to meet all its customers' needs. However, SYK's inventory has been building

as it is phasing in new products. This can be seen in the following table which shows the calculation of inventory days (DSI) of the last eight quarters:

	9/30/2018	6/30/2018	3/31/2018	12/31/2017
COGS	$1,087	$1,132	$1,104	$1,235
Inventory	$2,893	$2,740	$2,664	$2,465
COGS YOY growth	6.4%	10.9%	11.4%	15.3%
Inventory YOY growth	17.9%	20.2%	22.7%	21.4%
Inventory DSIs	242.9	220.9	220.2	182.1

	9/30/2017	6/30/2017	3/31/2017	12/31/2016
COGS	$1,022	$1,021	$991	$1,071
Inventory	$2,454	$2,279	$2,172	$2,030
COGS YOY growth	6.5%	2.3%	23.7%	19.7%
Inventory YOY growth	17.3%	14.6%	22.9%	23.9%
Inventory DSIs	219.1	203.7	200.0	173.0

While there has been no specific discussion of the inventory in build in the company's recent 10-Q filings, management did offer some color at a recent analyst day presentation:

> Katherine Owen:
> *"Yes, we've had been spin related to ERP and some of that has been broadening as we've expanded its scope of some of the CTG initiative given the acquisitions. We've got increasing organizational focus around it. We did have to build a lot of inventory and a lot of that was tied to our product lifecycle management program or PLCM, which is one of the CTG initiatives. And so, it is a very complicated process when you're doing, phasing out a product, you've got a build-up inventory of the products you're getting rid of. You've got to build up inventory of the products you're keeping. There's different implications and different locations geographically and because you don't want to have -- you want to have a very smooth transition there. And so that's one of the big drivers around the inventory build that's impacted some of the free cash flow."*

We can clearly see the disruption in inventory brought about by the product cycle and management's explanation seems plausible. However, with four straight quarters of 10+ day year-over-year increases in DSIs and levels near a historical high, we will start being concerned if we don't see inventory growth begin to trend more in-line with sales in upcoming quarters.

Explanation of EQ Rating Scale

Rating	Explanation
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 recent 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 Concerns"	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 may 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 the next quarter. 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.

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