BEHIND THE NUMBERS

EARNINGS QUALITY & DIVIDEND SUSTAINABILITY RESEARCH

BTN Research

Jeff Middleswart
jmiddleswart@btnresearch.com

Bill Whiteside, CFA
bwhiteside@btnresearch.com

June 19, 2020 | www.btnresearch.com

Avery Dennison (AVY) EQ Review

Current EQ Rating*	Previous EQ Rating
4-	na

6- "Exceptionally Strong"
5- "Strong"
4- "Acceptable"
3- "Minor Concern"
2- "Weak"
1- "Strong Concerns"

Note that a "+" sign indicates the earnings quality improved in the most recent quarter while a "–" sign indicates deterioration

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

We initiate earnings quality coverage with a rating of 4- (Acceptable).

While we do have some concerns with the length of estimated useful lives the company uses to amortized capitalize software and the likely expiration of the benefit from lower R&D spending, we do not have significant concerns with AVY's earnings quality. Specifically, we note:

- AVY capitalizes the cost to develop internal-use software and amortizes it over a period "generally from 5-10 years." The company's disclosure of gross capitalized costs, accumulated amortization, and amortization expense seem to indicate that the effective average life is much closer to 10 years than 5. Our experience indicates that 3-5 years is a more typical time frame over which to amortize such assets. If the amortization period was cut in half, it would raise annual amortization expense by approximately 20 cps, or roughly 3% of adjusted 2019 EPS.

- Before the 3/20 10-Q, AVY disclosed quarterly research and development expense. In the 12/19 and 9/19 quarters, the decline in R&D as a percentage of

sales added 2 cps and 3 cps to EPS growth, respectively. This disclosure was not available in the 3/20 10-Q. Given the company's push towards RFID and other digital technologies, we would expect the trend in R&D spending to be increasing above its current rate of only 1.2% which could be a mild headwind to growth in future quarters.

- Inventory days of sales as of the end of the 3/20 quarter jumped by 4 days over the year-ago period. While this would ordinarily raise alarms, almost the entire increase was due to a rise in raw materials days which fits the company's narrative of a higher than normal backlog from COVID-induced demand for food, pharma, and hygiene product labels which will be worked off during Q2. Therefore, we will look for inventory growth to normalize in the back half of the year.

- Lower stock-based compensation added a little over a penny per share to EPS growth in the 3/20 quarter.

- The company recorded provision for doubtful account expense over $20 million in the 3/20 quarter which amounted to an almost 20 cps headwind for EPS growth. This boosted the reserve for bad debts as a percentage of gross receivables to 3.6% from 1.8%.

- Over 75% of AVY's sales are generated overseas with the bulk of its exposure coming from the Euro and the Yuan. The company is therefore unusually exposed to the impact of currency translation with the FX impact boosting or dragging reported sales growth between 1-3% over the last four years. While disclosure does not allow for a detailed analysis of currency impact by geography, we do not see evidence that the company is benefitting from adjusting out the FX impact of currency erosion from operations in countries with hyperinflationary environments while leaving in the gains from inflation-induced price increases as we have criticized with MDLZ and SEE.

Amortization of Capitalized Software- Useful Lives Appears Unrealistically Long

AVY capitalizes costs associated with developing software as follows:

"We capitalize software costs incurred during the application development stage of software development, including costs incurred for design, coding, installation to hardware, testing, and upgrades and enhancements that provide the software or hardware with additional functionalities and capabilities. Software costs, including internal and external training costs and maintenance costs, incurred during the preliminary project stage and the post-implementation and/or operation stage are expensed. In addition, we capitalize implementation costs incurred under a hosting arrangement that is a service contract. Capitalized software, which is included in "Other assets" in the Consolidated Balance Sheets, ***is amortized on a straight-line basis over the estimated useful life of the software, which is generally between five and ten years."***

The company discloses the gross cost, accumulated amortization, and amortization expense on an annual basis. That data is shown below for the last three years along with an estimated amount of capitalized costs calculated as a plug number:

	2019	2018	2017
Gross Cost	$487.2	$452.4	$428.9
Accumulated Amortization	$334.4	$316.9	$301.8
Net Cost	$152.8	$135.5	$127.1
Beginning Net Balance	$135.5	$127.1	$117.6
Amortization	-$20.8	-$20.2	-$29.3
Amount Capitalized (PLUG)	$38.1	$28.6	$38.8
Ending Net Balance	$152.8	$135.5	$127.1

We realize that our estimate of periodic capitalized costs will not be exact due to FX impacts and retirement/write-off of existing assets, but we believe it serves as a good estimate. The fact that the amount capitalized regularly exceeds amortization expense calls into question the useful life estimate. We noted above that AVY amortizes capitalized software assets over 5-10 years. In our experience, 10 years is on the longer side of estimated life ranges we typically see. Digging into the numbers a little deeper, if we take the average gross cost of capitalized software between 2019 and 2018 of $470 million and divide it by the 2019 amortization expense of $20.8 million we get an implied amortization period of over 20 years. This is clearly not the case and indicates that the gross balance must include a large amount of gross costs associated with software that has been fully amortized but is still in service. However,

even if we compare amortization expense to the average ***net*** balance of approximately $144 million, we get an implied amortization period of almost 7 years. This is unrealistically low as clearly not all of the net balance is fully amortized. The actual effective amortization period is somewhere in the middle of 7-22 years and very likely at the top end of the 5 to 10- year range given by the company. A more typical range for software amortization based on our experience would be 3 to 5 years. If the average effective amortization period was cut from 10 to 5 years, it would double amortization expense and reduce annual EPS by about 20 cps or approximately 3%.

R&D Declining and No Longer Disclosed

AVY previously disclosed research and development expense (R&D) in its 10-Qs but this figure was omitted from the 3/20 Q. Historically, the data was as follows:

	3/28/2020	12/28/2019	9/28/2019	6/29/2019
Sales	$1,723.0	$1,772.9	$1,761.4	$1,795.7
R&D	na	$21.4	$21.7	$24.8
R&D % of Sales	na	1.21%	1.23%	1.38%

	3/30/2019	12/29/2018	9/29/2018	6/30/2018
Sales	$1,740.1	$1,768.7	$1,759.7	$1,854.2
R&D	$24.7	$23.7	$24.5	$25.2
R&D % of Sales	1.42%	1.34%	1.39%	1.36%

We can see that R&D as a percentage of sales was dropping year-over-year through the 12/19 quarter before the R&D disclosure disappeared. The decline as a percentage of sales added 2 cps and 3 cps to EPS growth in the 12/19 and 9/19 quarters, respectively. While R&D spending may have been cut in the wake of the COVID impact, we doubt very seriously it was cut so much that the amount was no longer material. Therefore, we are uncertain as to why the disclosure disappeared. Regardless, as the company moves more towards the direction of RFID and digital integration of its label products, we would expect R&D spending to rise as a percentage of sales in the future and the recent tailwinds to turn against the company.

We also note that the deferred revenue disclosure was absent from the 3/20 10-Q. However, this amount is less material, ranging from just $12 million to $16 million

and has held steady on a days of sales basis. Still, in our minds, less disclosure is always a bad thing.

Inventory Climb Not a Concern

Total inventory days of sales (DSI) at the end of the 3/20 quarter jumped by 4 days versus the year-ago quarter. The following table shows the increase broken down by inventory component:

	3/28/2020	12/28/2019	9/28/2019	6/29/2019
Raw Materials DSI	20.6	16.4	16.4	16.3
Work in Process DSI	14.9	14.2	14.4	14.0
Finished Goods DSI	17.6	16.3	16.1	16.1
DSI	53.2	46.8	46.9	46.5

	3/30/2019	12/29/2018	9/29/2018	6/30/2018
Raw Materials DSI	17.3	16.6	17.8	16.4
Work in Process DSI	14.5	13.8	14.2	13.2
Finished Goods DSI	17.3	15.3	15.7	14.8
DSI	49.1	45.7	47.8	44.5

Management noted in the conference call that it experienced lower collections and higher inventory levels as many customers were shut down during the last month of the quarter due to COVID. Also, the company's food, hygiene and pharma customers experienced strong demand which led to an increase in backlog that is expected to be worked off during the 6/19 quarter. Finally, the company acquired Smartrac's transponder division for $253 million in late February which likely impacted the DSI calculation.

As the table above shows, the increase in DSI's was driven by raw materials which matches the narrative of a company building to meet an unexpected rise in backlog. Thus, while a sudden 4-day jump in DSI would ordinarily be a point of concern, we are not alarmed given the source of the increase and expect to see the raw materials buildup flow out of inventory by the end of the 6/19 quarter.

Big Build in Receivables Allowances Pressured Growth

AVY built up its allowance for bad debts during the quarter. The allowance as a percentage of gross receivables jumped to 3.6% versus 1.8% in the year-ago quarter and 2.2% in the 12/19 quarter. The company began disclosing the progression in the allowance account in the 3/20 10-Q so we know that the company recorded provision expensed $20.3 million in the quarter while only writing off $500,000 of receivables. We do not know what provision expense was in the 3/19 quarter, but the company noted in the 3/20 10-Q that the provision amount "primarily reflects impacts on customers as a result of COVID-19." The $20.3 million charge amounts to approximately 19 cps and accounted for almost all of the increase in the allowance percentage. AVY has amounts due from a mix of smaller customers, many overseas, so the company may not have seen the end of higher provision expense. However, another headwind of the magnitude seen in Q1 seems unlikely.

Currency Exposure

Over 75% of AVY's sales in 2019 were generated from its international operations with 23% in Western Europe, 20% in China, 15% in other Asia with the rest in Eastern Europe and Latin America. This leaves the company's results very exposed to fluctuations in foreign currencies versus the dollar, particularly the Euro and the Chinese Yuan. The company does not currently engage in extensive FX hedging (the amount of cumulative losses reclassified to income from AOCI was only $1.1 million in the 3/20 quarter.) Regardless, the company's reported sales and profits are significantly impacted by currency movements, as shown in the following table showing FX-adjusted sales growth for the last three fiscal years:

	2019	2018	2017	2016
Reported Sales Change	-1.0%	8.0%	9.0%	2.0%
FX Translation	3.0%	-1.0%	-1.0%	3.0%
Sales Growth Ex-Currency	2.0%	7.0%	8.0%	5.0%

Our concern in the area of FX translation is greater when a company such as MDLZ or SEE that have sizeable operations in high-inflation countries experience artificial benefits from adjusting out the FX impact but leaving in the benefit of inflation-induced price increases. Roughly 15% of the company's sales are in Latin America

but it has treated Argentina as a highly inflationary operation and utilized the dollar as the functional currency to measure its results since 2018. While the company does not break out the sources of sales growth in Latin America, we do not believe that sales to high-inflation environments like Argentina and Venezuela are material enough to significantly distort ex-currency growth figures. We can see that while FX translation can add or subtract 1-3% from reported sales growth which is a real risk, but one most investors should already be aware of.

Explanation of EQ Rating Scale

Rating	Description
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 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.

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.