BEHIND
THE NUMBERS
Quality of Earnings Analysis
November 17, 2021

Jeff Middleswart
jmiddleswart@btnresearch.com

Bill Whiteside, CFA
bwhiteside@btnresearch.com

www.btnresearch.com

TransDigm Group Incorporated (TDG)
Earnings Quality Update- 9/21 Qtr.

6- Exceptionally Strong
5- Strong
4- Acceptable
3- Minor Concern
2- Weak
1- Strong Concern
+ quality improving
- quality deteriorating

We are maintaining our earnings quality rating of TDG at 2+ (Weak) and our Top Sell rating.

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

TDG continues is gimmicks. 4Q21 showed the company adding back 11 cents from amortizing loss contracts it acquired. It did not reverse more of its tax valuation, but it did forecast a higher tax rate for fiscal year 2022 of 26%-28% as it is running afoul of the limits of deducting interest expense due to its heavy debt load. TDG continues to work to refinance debt to longer maturities to limit the problem of rising interest rates. There was another 3 cents added from cutting inventory reserves in the quarter too. Its list of gimmicks in the past year is still impressive:

- In 3Q21, TDG reversed a tax valuation reserve for $51 million, which added 87 cents to GAAP earnings. TDG did adjust for this in non-GAAP results.

- In 3Q21, TDG added back amortization of non-economic contracts for $20 million, adding back 27-cents.

- In 2Q21, TDG added back $6 million in adjustments to inventory, which was 8 cents.

- In 2Q21, TDG also added back amortization of non-economic contracts for $9 million or 12 cents.

- In 1Q21, TDG added back 26 cents from the amortization of non-economic contracts and posted a tax rate of 5.5% with some stock compensation benefits

We know the company should have a difficult time fully deducting all of its interest expense under the tax laws that are trying to penalize companies for carrying high debt levels. Reversing the tax allowance in 3Q offset the higher tax rate that was expected and now forecast. TDG was also routinely adding back $20-$23 million in Covid costs late into calendar 2020 and early 2021 (about 25-cents in EPS) while saying only about $1 million was due to actual Covid cleaning and new procedures. While it adds back stock compensation as a non-cash expense, it guided to only $90-$110 million of cost in that area for fiscal 2022 vs. $129 million in 2021.

The biggest problem we see is in inventory – it may be TDG's largest benefit in this quarter and likely next quarter

- Look at the Jump in Gross Margin and EBITDA margin of late:

	4Q21	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20
Gross Margin	56.7%	53.8%	49.6%	48.7%	45.7%	48.0%	56.7%	54.7%
EBITDA Margin	49.7%	45.9%	43.5%	42.8%	42.4%	41.5%	46.8%	46.5%

Results are getting much more profitable even on still reduced sales. **The red flag is TDG is only guiding to an EBITDA margin for next year of 47%.** If we give TDG a mulligan for 2020 due to Covid when its margin was 44.6% and 2019 when it made the large Esterline deal and posted a margin of 46.3% -- normal margins at TDG are 49% (49.2% in 2018 and 48.8% in 2017).

- TDG uses FIFO and Average Cost Inventory Accounting. Those provide a boost to margins when there is cost inflation. And there has been considerable cost inflation:
    - Aluminum was $1750/ton coming into Covid, fell to $1500/ton by May 2020, and rose above $3100/ton by October 2021. (it's down to $2600 now).
    - Copper was $2.70/lb coming into Covid, fell to $2.40/lb by March 2020, has been as high as $4.90/lb by May 2021 and bouncing around $4.50 now.
    - Platinum, Steel, Tin, Zinc… all show similar moves.

- We believe TDG is boosting prices on its products to reflect the higher costs to replace inventory. It does not have long-term contracts for its aftermarket parts per the 10-K filing and aftermarket is more than 75% of the business.

The issue is with FIFO and Average Cost, TDG is benefitting on Gross Margin and EBITDA margin because it is selling inventory that was purchased at much lower costs. Look at the inventory stats:

	4Q21	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20	4Q19
Raw Materials	$850	$872	$865	$900	$881	$901	$867	$858	$805
Work in Process	$322	$347	$360	$360	$358	$381	$389	$373	$360
Finished Goods	$207	$203	$205	$213	$222	$224	$208	$197	$192
Inventory Reserve	-$194	-$197	-$190	-$189	-$178	-$162	-$151	-$134	-$124
Total Net Inventory	$1,185	$1,225	$1,240	$1,284	$1,283	$1,344	$1,313	$1,294	$1,233
COGS	$554	$563	$602	$567	$637	$531	$625	$664	$659
Total DSI	195	199	188	207	184	231	192	178	171
Inventory Turn	1.9	1.8	1.9	1.8	2.0	1.6	1.9	2.1	2.1

- TDG is turning inventory less than 2x per year. Inflation that has seen costs double in just over a year would allow TDG to boost prices while it still sells inventory bought at half the current cost.

- **Red-Flag:** Raw Materials should see the biggest impact of costs doubling. Yet, Raw Material inventory recorded in dollar terms has been going down, indicating volume on hand is falling much faster. It looks like TDG is not replacing inventory as fast as it sells it.

- 4Q just had the best of both worlds, sales are growing and it is burning off cheap inventories. If the volumes sold are growing while volumes being replaced are falling – this source of gross margin gain could be short-lived.

- **Shouldn't work in progress be growing too**? There are likely higher labor costs and higher raw material costs to deal with, yet those dollar levels have been falling also.

- TDG is guiding to 300 bp lower EBITDA margin than it just posted.

- TDG is congratulating itself for lowering inventory. From the 10-K, *"The change in inventories during fiscal 2021 was a source of cash of $79 million compared to a use of cash of $62 million in fiscal 2020. The increase in the source of cash is **primarily driven by decreased purchasing of raw materials particularly in the first half of fiscal 2021** from lower demand as a result of the COVID-19 pandemic and actively managing inventory levels."*

- When the wave of higher-cost inventory rolls into Cost of Goods Sold – the slow inventory turn means it could pressure margins for several quarters. Also, the faster the sales recover, the faster TDG burns off the cheap inventory.

- We were expecting TDG to drive some earnings by cutting the inventory reserve. It declined $3 million in the quarter which added 4-cents to EPS. Given the inflation in the commodities, it would seem that there are fewer reserves needed to recognize the lower of cost or market. Also, if sales are expected to improve – it should mean more planes are put back in service and will require more replacement parts. That could also drive inventory reserves down. Reserves could be $40-$50 million too high – that's 50-60 cents in potential EPS.

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.