BEHIND THE NUMBERS
Quality of Earnings Analysis
January 26, 2022

Jeff Middleswart
jmiddleswart@btnresearch.com

Bill Whiteside, CFA
bwhiteside@btnresearch.com

www.btnresearch.com

Texas Instruments Incorporated (TXN)
Earnings Quality Update- 12/21 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 TXN at 5+ (Strong) and maintaining our Top Buy rating.

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

Summary

TXN beat forecasts by 33-cents in 4Q21, this was primarily due to some incremental capacity increases enabling TXN to fill more of its backlog of orders. For the most part, TXN views its operating costs as fixed investments and the revenue is the wildcard. Order demand has been strong and the cadence for growth on revenue through the year was the earnings driver - $4.3 billion, $4.6 billion, $4.6 billion, and now $4.8 billion for 4Q21. Higher revenue leverages the fixed costs. Revenue guidance for 1Q22 at $4.5-$4.9 billion would be 5%-14% above 1Q21 levels.

Earnings quality remains very strong in our view. As expected the start-up of new production is resulting in wages that are not generating sales. TXN has highlighted this as a restructuring charge to make it easier for investors to see it. TXN expects this to be $75 million per quarter – 7-cents – through 2022. It was only a partial expense for 4Q and came in at $54 million.

What is strong?

- Demand is growing and is broad-based. The bigger issue for TXN and many in the industry has been fulfilling orders, which has caused backlogs to grow. TXN has more capacity coming online in 3Q22 and again in 1Q23. Both new plants should lower manufacturing costs per unit and leverage gross margin too. We still see more of the current dynamic continuing – R&D and SG&A remain largely fixed. When orders could not be met, revenues were lower and margins contracted. Now the reverse is true. The easiest way to visualize it to us is thinking in terms of having quarters with 13 weeks of overhead costs vs. 12 weeks of revenue in late 2020 and early 2021 due to orders that could not be filled and backlog grew which became 13 weeks of cost and 13 weeks of revenue in late 2021. This could essentially become 14 weeks of revenue in some quarters of 2022 as the backlogs are worked down.

- We showed this dynamic last quarter and will update it here. R&D and SG&A costs have been flat in dollar terms per quarter and that continued in 4Q21. But look at how much they have leveraged with revenue recovering:

	4Q21	3Q21	2Q21	1Q21
R&D	$389	$388	$391	$386
R&D %	8.1%	8.4%	8.5%	9.0%
SGA	$404	$412	$425	$425
SGA %	8.4%	8.9%	9.3%	9.9%

	4Q20	3Q20	2Q20	1Q20
R&D	$388	$386	$379	$377
R&D %	9.5%	10.1%	11.7%	11.3%
SGA	$398	$407	$401	$417
SGA %	9.8%	10.7%	12.4%	12.5%

The long-range goal is to have overhead between 20%-25% of sales. It was there for all of 2020 and fell to 19% at the start of 2021, but finished the year at 16.5%. TXN is forecasting that percentage to rise in the future back to 20% over the long-term, but this should continue to help drive earnings in the near term.

- Earnings quality improved further due to TXN fully amortizing acquired intangibles. This had been an adjustment to non-GAAP EPS of about 5-cents per quarter. In 4Q21, it was zero as the rapid amortization schedule used by TXN resulted in this expense falling from $47 million in 4Q20 to $0 in 4Q21. That does account for about 5-cents in y/y GAAP EPS growth.

What is weak?

- Inventories have stopped falling and actually rose slightly again in 4Q, but remain low. We think this remains the biggest short-term issue at TXN.

	4Q21	3Q21	2Q21	1Q21
DSIs	118	114	113	116
Fin Goods DSIs	37	37	40	44

	4Q20	3Q20	2Q20	1Q20
DSIs	125	139	168	147
Fin Goods DSIs	52	62	77	67

	4Q19	3Q19	2Q19	1Q19
DSIs	146	140	145	146
Fin Goods DSIs	66	63	66	63

We calculate inventory DSIs on ending stocks over the last quarter's COGS so our numbers are 1-2 days different than what TXN reports for total DSIs, but we want to focus on Finished Goods also and have both calculations be consistent.

- While inventories have stopped declining against rising sales, TXN's operating model relies on a much higher inventory level of 140-150 days. On the call, management indicated they would like to be near the high end of a range of 130-190 days. Their view is the product doesn't expire and there is a strong ROI to having extra inventory so that they never miss a sale. With many costs being fixed in the short term, the incremental sale drops largely to the bottom line. Thus, as we discussed above, the variable for TXN results is more tied to the revenue line. When they are out of inventory, that hurts sales and deleverages fixed costs. Until the inventory level increases more (especially finished goods), we think TXN could have some volatility to revenues.

- We do think the new plants coming online could skew the inventory figures later in 2022. Raw materials will likely need to be in place before the start-up dates of 3Q22 and 1Q23. After production is up and running, the production costs are expected to be about 20% lower at the new plants. Thus, inventory in dollar terms may look flat, but units are actually higher.

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.