BEHIND THE NUMBERS

Quality of Earnings Analysis

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Jeff Middleswart
jmiddleswart@btnresearch.com

Bill Whiteside, CFA
bwhiteside@btnresearch.com

www.btnresearch.com

Ball Corporation (BLL)
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 3- (Minor Concern) but removing from our On Deck Sell list.

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

Summary

BLL reported adjusted EPS of $0.97 in the 12/21 quarter which was 7 cps ahead of expectations. The company continues to see strong volumes and is reportedly selling all of the cans produced under its newly added capacity and has contracts already covering the capacity set to come online in the future.

Previously, our concerns have centered around trends in the company's payables and receivables as it had leaned heavily on both to help finance its ambitious growth plans. Also, we have minor concerns with a leveling off in raw materials inventory which may be indicating more margin pressure ahead. Given the continued strong volume growth and lack of a near-term catalyst, we are removing the company from our On-Deck Sell list and will continue to monitor working capital trends closely going forward.

- While total receivables DSOs rose by about 5 days YOY in the 12/21 quarter, factored DSOs declined by a similar amount. The pace of factoring has flattened and the fact that the limit on the factoring facility has been flat for three quarters may mean the company will have a tough time restarting it. This could be a drain on cash flow growth.

- Accounts payable are at an all-time high on an absolute and a DPO basis. This has been a key boost to recent cash flow growth and we remain concerned this trend could reverse in upcoming quarters.

- Inventory rose by 20% YOY in the 12/21 quarter. However, aluminum prices (the main raw material) were up over 40% implying units in inventory may have been down. However, raw materials were flat sequentially despite much higher aluminum prices and were down on a DSI basis YOY.

- The company uses FIFO inventory and expenses its older inventory first. We suspect that the company was delaying the purchase of new raw materials in hopes it would get lower prices. However, aluminum prices have only increased since mid-December meaning. These higher costs should start flowing through the income statement in the March quarter.

DSOs Rising- but the Pace of Factoring Continues to Slow

We have been tracking BLL's accounts receivable factoring program for the last several quarters and noted in the last quarter that factored receivables declined both sequentially and year-over-year. This trend of lower factored DSOs continued into the 12/21 quarter. The table below shows DSOs for both receivables left on the balances sheet and factored receivables:

	12/31/2021	9/30/2021	6/30/2021	3/31/2021
Sales	$3,674	$3,553	$3,459	$3,125
Net Trade + Unbilled	$2,022	$1,976	$2,102	$1,640
DSO	**50.6**	**51.2**	**55.3**	**47.2**
Outstanding Factored Receivables	$1,392	$1,270	$1,473	$1,252
Factored DSO	**34.9**	**32.9**	**38.8**	**36.1**
Adjusted Receivables	$3,414	$3,246	$3,575	$2,892
Adjusted DSO	85.5	84.1	94.1	83.3

	12/31/2020	9/30/2020	6/30/2020	3/31/2020
Sales	$3,102	$3,093	$2,801	$2,785
Net Trade + Unbilled	$1,344	$1,418	$1,447	$1,417
DSO	**39.9**	**42.2**	**47.0**	**46.3**
Outstanding Factored Receivables	$1,368	$1,316	$1,073	$1,098
Factored DSO	**40.6**	**39.1**	**34.9**	**35.9**
Adjusted Receivables	$2,712	$2,734	$2,520	$2,515
Adjusted DSO	80.4	81.3	81.9	82.2

	12/31/2019	9/30/2019	6/30/2019	3/31/2019
Sales	$2,719	$2,953	$3,017	$2,785
Net Trade + Unbilled	$1,186	$1,405	$1,511	$1,426
DSO	**40.1**	**43.8**	**45.6**	**46.1**
Outstanding Factored Receivables	$1,170	$1,145	$1,092	$1,008
Factored DSO	**39.6**	**35.7**	**32.9**	**32.6**
Adjusted Receivables	$2,356	$2,550	$2,603	$2,434
Adjusted DSO	79.7	79.4	78.5	78.7

We see that factored DSOs declined to 34.9 days from 40.6 in the year-ago quarter. However, the company's total adjusted DSOs rose from 80.4 to 85.5 as receivables left on the balance sheet jumped. We are not overly alarmed by the jump in receivables given the increase in sales which is being driven partly by the pass-through of higher aluminum costs.

Meanwhile, the limit on the factoring facility remained stable at $1.7 billion.

	12/31/2021	9/30/2021	06/30/2021	03/31/2021
Limit of Factoring Facility	$1,700	$1,700	$1,800	$1,600

	12/31/2020	09/30/2020	06/30/2020	03/31/2020
Limit of Factoring Facility	$1,600	$1,500	$1,300	$1,300

	12/31/2019	09/30/2019	06/30/2019	03/31/2019
Limit of Factoring Facility	$1,400	$1,300	$1,280	$1,200

This could be a sign that the company may not be able to drive cash flow growth by accelerating its receivables sales again.

Payables Continue to Climb

Accounts payable continues to skyrocket as well. The following table shows the calculation of days payable for the last twelve quarters:

	12/31/2021	9/30/2021	6/30/2021	3/31/2021
Accounts Payable	$4,759	$4,210	$3,961	$3,355
Cost of Products Sold	$2,981	$2,851	$2,760	$2,493
DPOs	146.9	135.9	130.6	121.1

	12/31/2020	9/30/2020	6/30/2020	3/31/2020
Accounts Payable	$3,430	$2,832	$2,699	$2,613
Cost of Products Sold	$2,448	$2,430	$2,230	$2,215
DPOs	128.9	107.2	110.1	107.4

	12/31/2019	9/30/2019	6/30/2019	3/31/2019
Accounts Payable	$3,136	$2,658	$2,739	$2,739
Cost of Products Sold	$2,159	$2,363	$2,428	$2,253
DPOs	133.6	103.5	102.7	109.4

Payables now stand at 146.9 days, the highest reading we have seen. Management indicated in the 10-K that DPOs, DSIs, and DSOs were all inflated by rising aluminum prices. We understand that these costs and the associated higher prices may drive the balances of payables, inventories, and receivables higher. We also understand that the high-teens revenue growth rate will also push the days calculations higher. However, most of these amounts are passed through to customers so they are also driving sales and cost of sales which are used to compute the days ratios. Ultimately, payables growth has been outrunning revenue growth for some time to the benefit of cash flow, and this has its limits.

Management pointed out on the call that when aluminum prices rise, it gets a benefit from working capital:

> "Also, when commodity prices rise, **when aluminum rises, we get a benefit from a working capital standpoint because we have longer payable terms than we have receivable terms. And so that helped working capital in '21. In '22, we're kind of expecting relatively flat commodity prices and expecting our working capital to be relatively neutral."**

However, consider the cash flow impact of the three main working capital components over the last three years:

	12/31/2021	12/31/2020	12/31/2019
Cash Flow from Receivables	-$863	-$135	$49
Cash Flow from Inventories	-$464	-$64	-$45
Cash Flow from Payables	$1,312	$66	$72
Net Cash Flow Impact	*-$15*	*-$133*	*$76*

It is true that payable days are longer than days receivables which implies the company will be collecting the cash from the higher revenue sooner than it will have to pay the higher costs to its suppliers. Nevertheless, the historically high level of payables does not seem sustainable and we continue to see the possibility of payables retracting which would lead to a higher than expected drain on cash flow from working capital.

Flat Raw Materials DSIs Are a Concern

The price of aluminum, BLL's major raw material, has skyrocketed along with most other raw materials. Many companies have seen their inventory balances rise due to cost inflation, even though the number of units in inventory has not grown. BLL's total inventory balance jumped by 20% YOY in the 12/21 quarter. However, aluminum prices are up over 30% compared to a year ago, indicating that inventory unit growth is much more subdued. This is consistent with the company's narrative that demand is outstripping supply and it is selling every new can it is producing with its new capacity.

However, we were struck by the fact that the raw materials component of inventory was essentially flat sequentially in the 12/21 quarter as seen in the following table:

	12/31/2021	9/30/2021	6/30/2021	3/31/2021	12/31/2020	9/30/2020
Raw Materials & Supplies	$1,064	$1,012	$945	$868	$889	$852
Work in process and finished goods	$821	$716	$639	$624	$557	$551
Inventory Reserve	-$90	-$90	-$94	-$93	-$93	-$94
Total Inventory	$1,795	$1,638	$1,490	$1,399	$1,353	$1,309

The following table shows the components of inventory on a DSI basis for the last twelve quarters:

	12/31/2021	9/30/2021	6/30/2021	3/31/2021
Raw Materials & Supplies DSI	32.8	32.7	31.2	31.3
Work in process and finished goods DSI	25.3	23.1	21.1	22.5
Inventory Reserve DSI	-2.8	-2.9	-3.1	-3.4
DSI	55.4	52.9	49.1	50.5

	12/31/2020	9/30/2020	6/30/2020	3/31/2020
Raw Materials & Supplies DSI	33.4	32.3	36.0	34.0
Work in process and finished goods DSI	20.9	20.9	24.6	25.2
Inventory Reserve DSI	-3.5	-3.6	-4.0	-3.5
DSI	50.8	49.6	56.6	55.6

	12/31/2019	9/30/2019	6/30/2019	3/31/2019
Raw Materials & Supplies DSI	34.4	28.0	26.2	27.6
Work in process and finished goods DSI	23.4	21.1	21.1	26.2
Inventory Reserve DSI	-3.5	-3.2	-3.0	-2.8
DSI	54.3	45.9	44.3	50.9

We see several points worth noting in the data:

- While total DSI is up from 50.4 in the 12/20 quarter to 55.4 in the 12/21 quarter, Raw Materials and Supplies DSI declined YOY despite the rising aluminum prices.

- BLL utilizes the FIFO method of inventory accounting so it is expensing its older, lower-cost inventory first. It turns its inventory roughly every 55 days so it is not keeping inventory on the books for long. Still, the decline in raw materials on a unit basis makes us wonder if the company was hoping to delay purchases until it could realize lower prices.

- Unfortunately, aluminum prices have gone straight up since mid-December and this may be reflected in higher costs in the upcoming March quarter. The company will be protected to some degree by its pass-through arrangements.

- Given that raw materials inventory did increase versus a year ago and the fact the Raw Materials DSI decline was less than two days, we don't see this as being a huge overhang for the upcoming 3/22 quarter.

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.

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