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Ball Corporation (BLL) EQ Review

Current EQ Rating*	Previous EQ Rating
3-	NA

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

We initiate coverage of Ball Corporation (BLL) with a rating of 3- (Minor Concern)

We note a few red flags with BLL's recent results primarily around working capital benefits to cash flow which seem to be temporary in nature.

- After adjustment for the adoption of ASC 606, reclassification of assets held for sale, and the company's receivables factoring program, accounts receivable days of sales (DSO) jumped by over two days. However, what is more of a concern is the increased utilization of the factoring program which could have added almost $200 million to recent cash flow growth.

- After similar adjustments to cost of sales and inventory levels, inventory days (DSI) were up only slightly. However, given the rise in raw materials costs, the possible impact of tariffs and the company's use of first in, first out (FIFO) accounting, we would have actually expected to see more an of increase in inventory balances than we did. While running lean inventories is good for cash flow in the short-run, we are concerned this could reverse as the company has to replenish shelves at higher costs in upcoming quarters.

- While inventory may have stayed under control, days payable has skyrocketed, indicating the company is boosting cash flow through stretching payment terms.

Receivable DSOs Are Rising, as Is the Use of Securitizations

BLL's accounts receivable are being impacted by several unusual factors that require adjustment before analyzing trends in days of sales (DSO).

First, the adoption of ASC 606 for revenue recognition in 2018 materially impacted accounts receivable levels. The company discloses what receivables balances would have been in the 6/18 and 3/18 quarters under the old method of revenue recognition. We will utilize these numbers for comparison to historical periods, along with similarly-adjusted revenues, and will make similar adjustments in our analysis of inventory and payables balances.

Second, the company sold the US steel food and aerosol packaging business on 7/31/2018 to form a joint venture. The associated assets and liabilities were reclassified as held for sale on the company's 6/30/2018 balance sheet. We will add back those account balances in our analysis of receivables, payables, and inventories as well.

Finally, the company maintains an accounts receivable factoring program under which it sells receivables to third-party financing institutions to accelerate the receipt of cash. Here is an example of the disclosure regarding the factoring program from the 6/18 10-Q:

> *"The company has entered into several regional committed and uncommitted accounts receivable factoring programs with various financial institutions for certain receivables of the company. The programs are accounted for as true sales of the receivables, without recourse to Ball, and* ***had combined limits of approximately $977 million at June 30, 2018. A total of $139 million and $439 million were available for sale under these programs as of June 30, 2018, and December 31, 2017, respectively."***

While we can't tell from this disclosure what the total amounts of cash received from selling receivables to the financing companies during the periods were, we can back into the total amount of receivables that were sold but still outstanding at the end of the quarter by subtracting the amounts available for sale from the total limit. Note that prior to the 12/17 quarter, the company disclosed the limit and the amount sold rather than the amount available. The following table shows the calculation of the amount of sold receivables that are still outstanding which should be added back to accounts receivable when analyzing DSO trends:

	6/30/2018	3/31/2018	12/31/2017	9/30/2017
Limit of Factoring Facility	$977	$800	$1,000	$1,000
Available for Sale	$139	$211	$439	$354
Implied Amount Sold and Outstanding	**$838**	**$589**	**$561**	**$646**

	6/30/2017	3/31/2017	12/31/2016	9/30/2016
Limit of Factoring Facility	$1,000	$865	$970	$679
Available for Sale	$342	$323	$374	$214
Implied Amount Sold and Outstanding	**$658**	**$542**	**$596**	**$465**

The calculation of adjusted receivable DSOs for the last 8 quarters is shown below:

	6/30/2018	3/31/2018	12/31/2017	9/30/2017
Sales Under Pre-606 Accounting Method	$3,143	$2,752	$2,747	$2,908
Receivables Under Pre-606 Accounting Method	$1,722	$1,745	$1,634	$1,793
Receivables Moved to "Held for Sale"	$78			
Receivables Sold and Outstanding	$838	$589	$561	$646
Adjusted Receivables	$2,638	$2,334	$2,195	$2,439
Adjusted DSOs	76.6	77.4	72.9	76.5

	6/30/2017	3/31/2017	12/31/2016	9/30/2016
Sales Under Pre-606 Accounting Method	$2,855	$2,473	$2,523	$2,752
Receivables Under Pre-606 Accounting Method	$1,637	$1,695	$1,491	$1,789
Receivables Moved to "Held for Sale"				
Receivables Sold and Outstanding	$658	$542	$596	$465
Adjusted Receivables	$2,295	$2,237	$2,087	$2,254
Adjusted DSOs	73.4	82.5	75.5	74.7

After a great deal of adjusting, we arrive at the conclusion that accounts receivable DSOs jumped by almost 3 days over the comparable year-ago period. Given the extreme difference between revenue recognition characteristics of the company's base business and its defense business, we are not overly alarmed by the jump, but it is nonetheless something to keep an eye on in the next quarter.

What we find more concerning is the company's increased use of its factoring program, with sold receivables at a historical high. Again, we do not know the exact amount of cash generated through the sale of receivables during the quarter. However, we do know that the limit stayed roughly the same during the first six months of each of the last two years. We also know receivables sold but outstanding were $180 million higher than they were in the comparable year-ago quarter. These represent amounts that would have still been on the company's books and not yet converted to cash. The company reported cash from operations in the first six months of 2018 was $434 million versus $261 million a year ago, implying the growth could have been entirely due to the increased use of receivables factoring.

Inventory DSIs Look Good After Adjustments

BLL's quarter-end inventory balances were also impacted by the reclassification of the US steel food and aerosol packaging business assets and liabilities as held for sale, requiring adjustment in calculating DSIs. Likewise, the adoption of ASC 606 also impacted cost of sales, so we will utilize the company's cost of sales figure presented under the historical method for the last two quarters. The resulting calculation of DSIs is shown below:

	6/30/2018	3/31/2018	12/31/2017	9/30/2017
Cost of Sales Under Pre-606 Accounting Method	$2,522	$2,206	$2,134	$2,338
Inventory Under Pre-606 Accounting Method	$1,489	$1,720	$1,526	$1,433
Inventory Moved to "Held for Sale"	$231	$0	$0	$0
Adjusted Inventory	$1,720	$1,720	$1,526	$1,433
Adjusted DSIs	62.2	71.1	65.3	55.9

	6/30/2017	3/31/2017	12/31/2016	9/30/2016
Cost of Sales Under Pre-606 Accounting Method	$2,270	$1,975	$2,009	$2,275
Inventory Under Pre-606 Accounting Method	$1,524	$1,554	$1,413	$1,418
Inventory Moved to "Held for Sale"	$0	$0	$0	$0
Adjusted Inventory	$1,524	$1,554	$1,413	$1,418
Adjusted DSIs	61.3	71.8	64.2	56.9

Inventory DSIs have been very stable over the last few quarters. Ordinarily, this would be a good sign, but given the rise in aluminum prices and the likely impact of tariffs, we are surprised to not see a larger jump in DSIs in the last quarter. Adjusted inventory levels were up by almost 13% over last year, but this was largely offset by an 11% increase in cost of sales in the DSI calculation. BLL also utilizes the first-in, first-out (FIFO) method of inventory valuation, meaning the highest cost inventories are left on the balance sheet. Additionally, the company opened a manufacturing plant in the 6/18 quarter, which usually has the impact of boosting inventories from stocking the opening plant. All of this makes us think the company has worked very hard to keep inventory levels as low as possible to conserve cash, but we are skeptical that it will continue to be able to do so in the current environment.

Accounts Payable Increasing

As with our calculation of inventory DSIs, we will utilize the company's cost of sales figure adjusted to comply with pre-ASC 606 accounting. Likewise, we will add back accounts payable balances that have been reclassified to "held for sale" at the end of the 6/18 quarter. Our results are shown below:

	6/30/2018	3/31/2018	12/31/2017	9/30/2017
COGS Under Pre-606	$2,522	$2,206	$2,134	$2,338
Reported Accounts Payable	$2,739	$2,822	$2,762	$2,419
Payables Moved to "Held for Sale"	$198			
Adjusted Accounts Payable	$2,937	$2,822	$2,762	$2,419
Adjusted Days Payable	106.3	116.7	118.1	94.4

	6/30/2017	3/31/2017	12/31/2016	9/30/2016
COGS Under Pre-606	$2,270	$1,975	$2,009	$2,275
Reported Accounts Payable	$2,146	$1,830	$2,033	$1,864
Payables Moved to "Held for Sale"				
Adjusted Accounts Payable	$2,146	$1,830	$2,033	$1,864
Adjusted Days Payable	86.3	84.6	92.3	74.8

We see that the company's accounts payable balances have risen sharply faster than cost of sales in the last several quarters. As noted above, we would have expected inventory to increase more over the last couple of quarters given rising costs. If it had, a rising payables balance would not have been as notable. However, despite the relatively flat DSI growth, days payable has skyrocketed, indicating the company may be temporarily boosting cash flow by stretching payment terms.

Conclusion

The adoption of new accounting policies and the divestiture of the US steel can and aerosol business have all made for difficult comparisons in the company's numbers. We also recognize that the integration of the Rexam acquisition made two years ago means BLL is still somewhat in transition. Nevertheless, the company's recent cash flow appears to have benefited materially from benefits that appear to be temporary in nature. This includes an acceleration in the use of receivables factoring that we believe could have added close to $200 million to cash flow, unusually low inventory balances which could consume cash in the future as the company replenishes at higher prices (maybe a $50-$100 million benefit), and a rapid escalation in payables which could have added another $200 million to cash flow). Trailing 12-month free cash flow was just under $900 million as of the 6/18 quarter, so these are very material benefits.

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 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.

Disclosure

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