BEHIND THE NUMBERS
EARNINGS QUALITY & DIVIDEND SUSTAINABILITY RESEARCH

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March 14, 2019 | www.btnresearch.com

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Fastenal (FAST) 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 earnings quality coverage of FAST with a rating of 3+ (Minor Concern).

We consider FAST to be a high-quality company having reported consistent growth for many years, good overall earnings quality, and a debt-to-EBITDA of under 0.5- all rare qualities for an industrial distributor. However, we believe that gradually increasing challenges to the company's business model are showing up in the numbers and investors should consider their impact on the health of long-term dividend growth.

- Accounts receivable DSOs jumped by approximately 2 days over the year-ago quarter. Rising receivables has been a trend over the last four years driven by growth in the company's international and large national account business. However, management's explanation of the increase in the 2018 10-K became more specific,

citing a push by large accounts to extend payment terms as being a trend that has intensified throughout 2018.

- Inventory DSIs at the end of the 12/18 quarter jumped two days over the year-ago quarter which the company attributed to inflation and pre-buying ahead of potential tariffs. However, management has also mentioned that its growth drivers of increasing national accounts, expanding industrial vending machines, and rising number of onsite locations are requiring more investment in inventory.

- We are not in any way predicting a near-term cut to FAST's dividend as the company's core operations are still growing and its low leverage gives it plenty of flexibility in allocating capital. However, the percentage of free cash flow consumed by the dividend in the last four years has ranged between 79-105%, and capex forecasts for 2019 indicate it could exceed 100% next year as well. This is all before the buyback. This makes the increased working capital drain from receivables and inventories more of an issue.

Accounts Receivable Increasing as Customers Push for Longer Terms

FAST's accounts receivables days (DSO) have been slowly increasing over the last several quarters as shown in the following table:

	12/31/2018	9/30/2018	6/30/2018	3/31/2018
Sales	$1,231.6	$1,279.8	$1,267.9	$1,185.8
Accounts Receivable	$714.3	$772.5	$733.7	$688.6
Sales YOY growth	13.1%	13.0%	13.1%	13.2%
Accounts Receivable YOY growth	17.5%	22.2%	19.6%	19.8%
Accounts Receivable DSOs	52.9	55.1	52.8	53.0

	12/31/2017	9/30/2017	6/30/2017	3/31/2017
Sales	$1,088.5	$1,132.8	$1,121.5	$1,047.7
Accounts Receivable	$607.8	$632.1	$613.5	$574.7
Sales YOY growth	14.8%	11.8%	10.6%	6.2%
Accounts Receivable YOY growth	21.6%	16.2%	14.2%	7.7%
Accounts Receivable DSOs	51.0	50.9	49.9	50.1

This trend of gradually increasing DSOs actually started in 2015:

Year ended December:	2018	2017	2016	2015
Cost of Sales	$4,965.1	$4,390.5	$3,962	$3,869.2
Accounts Receivable	$714.3	$607.8	$500	$468.4
Accounts Receivable DSOs	51.8	49.8	45.4	43.6

There are two drivers behind this trend of rising receivables. First, the company's national account business is growing faster than small accounts meaning it is dealing with more powerful customers. As evidence of the rising importance of larger accounts, the company is driving growth by opening onsite locations where it maintains a distribution hub on the premises of some of its large accounts while simultaneously closing down nearby public branches. The number of each type of location since 2012 is shown below:

	2018	2017	2016	2015	2014	2013	2012
Sales	$4,965.1	$4,390.5	$3,962.0	$3,869.2	$3,733.5	$3,326.1	$3,133.6
Public Branches	2,227	2,383	2,503	2,622	2,637	2,687	2,652
Onsite Locations	894	605	401	264	214		
Total Locations	3,121	2,988	2,904	2,886	2,851	2,687	2,652

The company has been open about admitting that the greater mix of national accounts was putting pressure on working capital via higher receivables. Consider the discussion in the "Liquidity and Capital Resources" section from the 2017 10-K:

> ***"In 2017, the annual growth in net accounts receivable reflects accelerating growth in sales throughout the course of the year combined with relatively stronger growth of our national accounts and international business.*** *Growth in accounts receivable continued in the fourth quarter of 2017, with the timing of the Christmas and New Year holidays affecting the timing of these customers' payments. Currency fluctuations also impacted accounts receivable in 2017. In 2016, the annual growth in net accounts receivables outpaced the growth in sales. This was not the case through the third quarter, and was mostly a function of conditions in the fourth quarter of 2016. In the fourth quarter of 2015, we collected receivables from our seasonally stronger third quarter, but because demand fell off surprisingly sharply in November and December, our fourth quarter receivables were unseasonably low. In the fourth quarter of 2016, by contrast, we collected receivables from our seasonally stronger third quarter, but because demand was more closely in line with seasonal norms, our receivables in the period were similarly more normal.* ***Over a longer period of time, if we continue to see relatively strong growth in our***

> ***international business and of our large customer accounts it could continue to create difficulty in managing the growth of accounts receivables relative to the growth in net sales."***

Past explanations have included similar language about the increase in international and national account business making working capital management more challenging. However, the discussion in the 2018 10-K changed to a more specific tone:

> *"In 2018, the annual growth in net accounts receivable reflects accelerating growth in sales throughout the course of the year combined with relatively stronger growth of our national accounts and international business.* ***In addition, two trends emerged among our customer base that increased our net accounts receivable. The first was a push from our customers to contractually increase the period between when they are invoiced and when payment is due. The second was customers delaying payments beyond the end of the applicable quarter. <u>We saw these behaviors intensify throughout 2018.</u>*** *In 2017, the annual growth in net accounts receivable reflects accelerating growth in sales throughout the course of the year combined with relatively stronger growth of our national accounts and international business. Growth in accounts receivable continued in the fourth quarter of 2017, with the timing of the Christmas and New Year holidays affecting the timing of these customers' payments. Currency fluctuations also impacted accounts receivable in 2017."*

While the overall increase in receivables is not a new trend, the specific admission that larger customers are specifically pushing to extend their payment terms and that this intensified in 2018 indicates that this is a new development. As we will discuss in a later section, the increase in working capital is more concerning given the lack of cushion between the dividend and free cash flow. However, it is also worrisome from an operational perspective give that if larger customers can pressure for better payments terms, they could conceivably pressure for lower prices and other concessions as well.

Inventory DSIs Rose in the Fourth Quarter

FAST's inventory days (DSI) jumped by more than 2 days in the 12/18 quarter as shown in the table below:

	12/31/2018	09/30/2018	06/30/2018	03/31/2018
COGS	$643.8	$664.0	$650.2	$608.2
Inventory	$1,278.7	$1,194.7	$1,163.4	$1,134.9
COGS YOY growth	15.5%	15.1%	15.5%	14.8%
Inventory YOY growth	17.0%	14.1%	11.4%	12.7%
Inventory DSIs	181.2	164.2	163.3	170.3

	12/31/2017	09/30/2017	06/30/2017	03/31/2017
COGS	$557.3	$576.9	$563.0	$529.7
Inventory	$1,092.9	$1,047.0	$1,044.3	$1,007.4
COGS YOY growth	17.1%	12.4%	9.8%	7.0%
Inventory YOY growth	10.1%	8.3%	6.0%	4.4%
Inventory DSIs	178.9	165.6	169.3	173.5

This is not a huge jump, and the fourth quarter DSI numbers is not a historical high. However, this trend is worth keeping an eye on given management's explanation in the 10-K:

> *"Our growth in inventory balances over time does not have as tight a relationship to our monthly sales patterns as does our growth in accounts receivable. One reason for this is cyclical. The lead time for inventory procurement is typically longer than the visibility we have into future monthly sales patterns, so economic downturns can cause a spike in inventory levels, as was seen in the dramatic economic slowdown in late 2008 and early 2009. Inventories may also fluctuate independent of monthly sales patterns based on strategic decisions. For instance, at various times we have increased our relative inventory levels based on new branch openings, expanded stocking breadth at distribution centers and/or individual branches (e.g., CSP), expanded direct sourcing, and expanded Fastenal brands.* ***Our growth drivers, including industrial vending solutions, national accounts, and Onsite and international locations, have also required significant investments in inventory. In 2018, our inventories increased as a result of growth in general demand and successful execution of our growth drivers. Inflation had an increasing impact in the second half of 2018, and our decision to accelerate shipments of product to the U.S. from overseas ahead of potential tariffs resulted in extra inventory of approximately***

$12.0 in the fourth quarter of 2018. In 2017, the most significant contributor to the increase in inventories was improving business activity and the growth of our Onsite business."

If we adjust out the $12 million in inventory pre-buys ahead of the tariffs, the year-over-year increase in DSI in the 12/18 quarter drops to about a day. This is hardly dramatic, and we are not at all worried about an unintended buildup in inventory. However, we believe investors should be watching for a sustained increase in inventories eating up more working capital. Consider the cash flow impact of payables for the last four years:

	2018	2017	2016	2015
Cash Use of Inventory	-$193.3	-$76.3	-$80.9	-$47.8

Little Cushion on the Dividend

Let us start by saying we are in no way implying FAST is in danger of a dividend cut. The company's core operations are growing, and its low debt load give it ample flexibility in its capital allocation decisions. However, given that the company's growth initiatives appear to naturally require more working capital, at some point this could factor in to how fast the company can grow its dividend in the future.

The following table shows the free cash flow consumption of the dividend for the last four years:

	12/31/2018	12/31/2017	12/31/2016	12/31/2015
Operating Cash Flow	$674.2	$585.2	$519.9	$550.3
Capex	$176.3	$119.9	$189.5	$155.2
Free Cash Flow	$497.9	$465.3	$330.4	$395.1
Dividends	$441.9	$369.1	$346.6	$327.1
Dividend % of FCF	88.8%	79.3%	104.9%	82.8%
Net Stock Repurchases	$103.0	$82.6	$59.5	$292.9
Cash After Buyback	-$47.0	$13.6	-$75.7	-$224.9

The company's free cash flow can be somewhat volatile given the timing of capex payments. For example, capex was elevated in 2016 due to the rollout of its leased lockers. The rebound in 2018 was due to increased spending on its industrial vending machines and the timing of purchasing new pick-up trucks. Regardless, capex should trend upward as FAST's new growth initiatives will involve more spending on new distribution avenues such as the

vending machines and leased locker programs. Management is forecasting 2019 capex to be between $195 million to $225 million. Thus, it is possible that free cash flow will once again not cover the dividend in 2019. As noted above, this is not an immediate problem given the company's low leverage and growth in its core operations. However, an increasing drain from working capital could eat into this cushion over time and impact how rapidly the company can grow the dividend in the future.

Kellogg (K) EQ Update-12/18 Quarter

Current EQ Rating*	Previous EQ Rating
2-	2+

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

We lower our earnings quality rating to 2- (Weak).

- Receivables factoring continues to decelerate, and receivables adjusted for factored and securitized balances were down almost 7 days of sales versus last year's December quarter. While a decline in DSO is good for cash flow growth, we remain concerned that the company will have to begin to loosen its credit terms again in order to maintain top-line growth.

- Days payable fell approximately 2 days versus the 12/17 quarter and the percentage of payables sold by suppliers has declined in three of the last four quarters, implying the benefit of stretching its payables is over.

- Adjusted operating cash flow growth was negative in 2018 and the company is forecasting flat free cash flow in 2019. Management is still expecting working capital improvements to continue despite its aggressive use of third-party financing and its new warning in the 10-K that any reversal of payment terms would adversely impact working capital management. The dividend currently consumes almost 80% of free cash flow and debt-to-EBITDA is 3.7.

- Accrued advertising and promotional expense declined from the 12/17 quarter despite the company touting "substantially" higher advertising and promotional spending in 2018 which is expected to carry into 2019. This could be an indication of an underestimation of future promotional redemptions which would have artificially benefited the 12/18 quarter. If the accrual had simply remained flat with the year-ago quarter, it would have resulted in about 5.5 cps in higher expenses in the period.

- Management noted that the fair value of its Multipro goodwill approximated carrying value and the fair value of its Kashi goodwill was 9-12% above carrying value. This

is not overly alarming given the young age of the transactions that produced the goodwill.

- Project K is forecast to end in 2019 bringing to an end $1.6 billion in restructuring spending. We will view it as a significant negative for earnings quality if the plan is expanded or a new one is announced.

Receivables Factoring Continues to Decelerate

As we have discussed in past reviews, in 2017 K aggressively expanded its use of receivables factoring and securitizations in order to offset the cash flow impact of offering longer payment times to its customers. However, the company discontinued its securitization program at the end of 2017 and while it increased its pace of factoring in 2018, it has not offset the wind down of the securitizations.

The following table shows the calculation of securitized/factored receivables days (DSOs) and total adjusted receivables DSOs for the last eight quarters:

	12/31/2018	9/30/2018	6/30/2018	3/31/2018
Sales	$3,317	$3,469	$3,360	$3,401
Reported Receivables	$1,375	$1,612	$1,530	$1,601
Securitized & Factored Receivables	$993	$965	$962	$970
Securitized/Factored DSOs	27.3	25.4	26.1	26.0
Total Adjusted Receivables	$2,368	$2,577	$2,492	$2,571
Total Adjusted Receivable DSOs	65.1	67.8	67.7	69.0

	12/30/2017	09/30/2017	07/01/2017	04/01/2017
Sales	$3,185	$3,246	$3,175	$3,248
Reported Receivables	$1,389	$1,512	$1,427	$1,464
Securitized & Factored Receivables	$1,120	$1,154	$1,133	$1,014
Securitized/Factored DSOs	32.1	32.4	32.6	28.5
Total Adjusted Receivables	$2,509	$2,666	$2,560	$2,478
Total Adjusted Receivable DSOs	71.9	74.9	73.6	69.6

We can see that the trend in year-over-year declines in total adjusted receivable DSOs continued into the fourth quarter. This implies that the company's extension of generous payment terms to customers has abated over the last year. We therefore find this disclosure in the risk section from the 2018 10-K interesting:

"We utilize extended payment terms for customers and suppliers supplemented with third party financing programs to assist in effectively managing our core working capital. ***If the extension of payment terms are reversed or financial institutions terminate their participation, our ability to maintain current levels of core working capital could be adversely impacted.***

Our principal source of liquidity is operating cash flows supplemented by borrowings for major acquisitions and other significant transactions. ***We utilize third-party financing programs to offset the negative impact of offering extended customer payment terms. In addition, in combination with extending supplier payment terms, structured payables programs are available to our suppliers which enable suppliers, at their sole discretion, to enter bilateral agreements to sell Company payment obligations to designated third-party financial institutions.***

Changes in financial markets or interest rates could make these third party financing programs less attractive to the financial institutions purchasing trade accounts receivables and Company payment obligations thereunder and these financial institutions may seek to terminate their participation*. In the event of such termination or if our extended payment terms are reversed, our ability to effectively manage core working capital could be adversely impacted."*

We have noted in past reviews that we were surprised that the reversal in extending payment times for customers has not resulted in problems with sales growth and we still believe the company may have to begin to extend more generous terms in upcoming quarters to meet targets.

Days Payable Continue to Decline

As noted in the above disclosure, K has been boosting cash flows by extending payment terms with its suppliers which has been facilitated by making third-party financing available to certain suppliers. However, the year-over-year increase in days payable ended in the 6/18 quarter and continued through the 12/18 quarter as seen in the table below:

	12/31/2018	9/30/2018	6/30/2018	3/31/2018
Cost of Sales	$2,228	$2,293	$2,151	$2,149
Payables	$2,427	$2,367	$2,306	$2,230
Days Payable	**99.4**	**94.2**	**97.8**	**94.7**
Payables in Tracking System	$893	$889	$834	$724
% of Total Payables	36.8%	37.6%	36.2%	32.5%
Payables Sold by Suppliers	$701	$664	$572	$547
% of Total Payables	28.9%	28.1%	24.8%	24.5%

	12/30/2017	09/30/2017	07/01/2017	04/01/2017
Cost of Sales	$2,043	$2,074	$1,950	$2,088
Payables	$2,269	$2,140	$2,057	$1,995
Days Payable	**101.3**	**94.2**	**96.3**	**87.2**
Payables in Tracking System	$850	$798	$769	$731
% of Total Payables	37.5%	37.3%	37.4%	36.6%
Payables Sold by Suppliers	$674	$582	$556	$543
% of Total Payables	29.7%	27.2%	27.0%	27.2%

We also see that the percentage of total payables that are in the tracking system as well as the percentage of total payables that have been sold by suppliers has declined in three of the last four quarters. The boost to cash flow growth from stretching payable appears to have ended.

Cash Flow Forecast Requires Continued Working Capital Improvement

The following table shows K's adjusted operating cash flow for the last three years adjusted for the change in accounting for receivables securitizations:

	12/31/2018	12/30/2017	12/31/2016
Operating Cash Flow	$1,536	$403	$1,271
Collections of Deferred Purchase Price on Securitized Receivables	$0	$1,243	$501
Adjusted Operating Cash Flow	$1,536	$1,646	$1,772
Capex	$578	$501	$507
Free Cash Flow	$958	$1,145	$1,265
Dividends	$762	$736	$716
Dividend % of Free Cash Flow	79.5%	64.3%	56.6%
Stock Repurchases	$320	$516	$426
Cash After Buyback	-$124	-$107	$123

Operating cash flow received a boost from lower cash taxes courtesy of tax reform and certain discrete tax items, but this was more than offset by higher spending from a $250 million voluntary contribution made in 2018.

The weak cash flow performance has been a result of a weak top line coupled with higher investments in strengthening and restructuring the company's portfolio of brands. 2019 will enjoy a lower pension contribution, but management is forecasting free cash flow to be roughly flat due to lower tax benefits, higher capex (by roughly $50 million) and continued investments.

As management pointed out in the 4Q conference call, even this modest forecast for cash flow growth requires the above-discussed improvements in working capital to continue:

> "We also, you'll recall, made a voluntary cash contribution to our pension funds, increasing their funded levels. And we again improved our core working capital which came down by 50 basis points as a percentage of sales on good payables management. **This durability and good working capital management is important as we ramp up capital expenditures further in 2019 around growth oriented investments…**"

As we discussed above, we are skeptical that the company can continue to squeeze cash out of its payables as it is dependent on both stretching suppliers and finding cheap financing for its third-party financing programs. On the receivables side, the company appears to have actually tightened up payment times on its customers which could backfire by pressuring sales. We would not be surprised to see the company begin extending more generous terms to customers to keep top-line growth positive in 2019 which will be a drag on cash flow growth. While it could conceivably accelerate its factoring of receivables again, it remains to be seen if it can do so on acceptable terms. Also, given the degree to which the company ramped its adjusted receivables in 2017, the market might look negatively on the company doing the same in 2019.

Accrued Advertising Down

K has been increasing its spending on advertising and promotion. According to the 10-K, advertising expense in 2018 was $752 million versus $732 million last year. However, consider the company's comment on advertising in its MD&A section of the 10-K:

> *"Currency-neutral adjusted operating profit was up slightly compared to the prior year due to cost savings that funded and* ***offset a substantial planned increase in advertising and promotion investment…"***

We don't consider a 2.7% increase in advertising expense on a 5.4% sales increase to be a "substantial increase." Promotional expense is not disclosed, but we suspect there was a large increase in promotional activity given management's comments. Likewise, the company was very clear that 2019 will be another year of promotional investment in its brands. We are therefore puzzled by the fact that the company's accrued advertising balance actually declined in the 12/18 quarter as shown in the following table:

	12/31/2018	9/30/2018	6/30/2018	3/31/2018
Accrued Advertising & Promotion	$557	$583	$570	$597
Sales	$3,317	$3,469	$3,360	$3,401
Accrued Advertising & Promotion Days of Sales	15.3	15.3	15.5	16.0

	12/30/2017	09/30/2017	07/01/2017	04/01/2017
Accrued Advertising & Promotion	$582	$552	$512	$464
Sales	$3,185	$3,246	$3,175	$3,248
Accrued Advertising & Promotion Days of Sales	16.7	15.5	14.7	13.0

Advertising costs are expensed the first time advertising takes place. Promotional payments include costs such as coupons and other cash redemption offers. These costs are recognized at the time of sale based on estimates of historical redemption experiences and patterns which requires a great deal of management judgment. Given the references to increased advertising and promotional spending which is forecast to continue into the next year, we would have expected to see the accrual balance continue to rise. If future promotional costs were underestimated, it could have artificially benefitted profits in the 12/18 quarter and will require the future recognition of higher expenses when the promotional redemptions are made.

Even if advertising and promotional accruals had remained flat with the year-ago level, it would have required the recognition of $25 million (over 5.5 cps) in additional expense in the quarter.

Goodwill

K disclosed the following in its 10-K regarding the buffer between fair value and carrying value for key components of its goodwill balance:

> *"Additionally, we have $207 million of goodwill related to our Kashi reporting unit, which was primarily a result of establishing Kashi as a separate operating segment in 2015, which required an allocation of goodwill from our U.S. Snacks operating segment. The 2018 fair value of the Kashi reporting unit was estimated primarily based on a multiple of net sales and discounted cash flows. The percentage of excess over fair value was approximately 12% and 9%, in 2018 and 2017, respectively, using the same methodology on a year-on-year basis. The use of modestly different assumptions in the valuation could have resulted in an impairment."*

> *"We also have $616 million and $798 million of goodwill and other intangible assets, respectively, related to our Multipro operating segment as a result of the acquisition of this business in May 2018. Consistent with our expectations given the recent acquisition, the 2018 fair value approximates carrying value for both goodwill and the indefinitely lived assets. The use of modestly different assumptions in these valuations could have resulted in an impairment."*

The lack of spread between fair and carrying value of the Multipro assets is a reflection of the fact that carrying value was established when the JV assets were consolidated in 2018. Likewise, the estimate of the value of the Kashi assets was made in 2015 so the approximate 10% buffer there seems reasonable and the likelihood of a material write-down there seems low.

Project K

Project K is expected to wind down in 2019 with $50 million in charges expected this year. This brings the total amount since plan inception to $1.6 billion. We will consider any extension of the plan or announcement of a new initiative to be a negative for earnings quality.

Mohawk (MHK) EQ Update-12/18 Quarter

Current EQ Rating*	Previous EQ Rating
3+	3-

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

We upgrade our earnings quality rating of MHK to 3+ (Minor Concern)

- The allowance for bad debts remains low at 4.8% of gross trade receivables versus 5.6% last year. Disclosure in the 10-K indicates provision expense for the year was up and the allowance decline was due to increased charge-offs. We remain concerned that the company may have to increase provision expense to increase the reserve and observe it would take about 12 cps in charges to increase it to the year-ago level.

- Inventory DSIs continue to rise jumping almost 6 days over the 12/17 quarter. Management blamed the increase in the inventory balance on acquisitions, pre-buying ahead of tariffs and preparation for new product launches. However, we are skeptical that acquisitions drove much of the increase in the DSI ratio and we do not see much evidence from the inventory components that new product production drove much of the increase. Management indicated it will be 2Q19 before we see meaningful improvement in inventory turns.

- The warranty reserve has returned to a more normal level which reduces our concern of a negative surprise from that area.

- Quarterly amortization of costs to obtain contracts increased to $12 million from $7.6 million in the 9/18 quarter. The next quarter will provide us the first year-over-year comparison and give more insight into this matter.

Allowance for Bad Debts Remains Low

We noted in previous reviews that MHK's allowance for bad debts fell materially in the 6/18 quarter as shown in the table below:

	12/31/2018	9/29/2018	6/30/2018	3/31/2018
Customer Trade Receivables	$1,562.28	$1,726.93	$1,716.75	$1,674.52
Allowance for Bad Debt	$74.72	$81.57	$78.14	$90.88
Allowance %	4.8%	4.7%	4.6%	5.4%

	12/31/2017	9/30/2017	7/01/2017	4/01/2017
Customer Trade Receivables	$1,538.35	$1,660.99	$1,651.77	$1,508.93
Allowance for Bad Debt	$86.10	$91.25	$91.47	$81.24
Allowance %	5.6%	5.5%	5.5%	5.4%

The company does not disclose provision expense on a quarterly basis, but the 10-K provides the following data regarding the annual progression of the allowance:

	2018	2017
Beginning Balance	$86.103	$78.335
Acquisitions	$4.240	$6.510
Additions charged to sales or COGS	$317.716	$308.507
Charge-offs	-$333.341	-$307.249
Ending Balance	$74.718	$86.103

We can see that provision expense actually increased in 2018, but an increased level of charge-offs led to the decline in the allowance. Regardless, the provision remains low compared to the last three years which require an increase in provision expense in future quarters. For perspective, we estimate it would take a charge of about 12 cps to bring the allowance back to the mid-5% range.

Inventory Continues to Rise but Management Attributes to Acquisitions and Inflation

Rising inventory has been a problem for MHK for the last several quarters as shown in the following table:

	12/31/2018	9/29/2018	6/30/2018	3/31/2018
Inventory	$2,287.62	$2,214.30	$2,061.20	$2,044.96
COGS	$1,802.23	$1,825.37	$1,810.46	$1,707.51
DSI	115.8	110.7	103.9	109.3

	12/31/2017	9/30/2017	7/01/2017	4/01/2017
Inventory	$1,948.66	$1,911.03	$1,865.94	$1,740.88
COGS	$1,615.47	$1,665.21	$1,673.90	$1,540.29
DSI	110.1	104.7	101.7	103.1

Management has admitted the problem and told investors in the third quarter that it was cutting back on production to bring inventory back in-line which was negatively impacting production costs. Still, inventory days (DSI) in the 12/18 quarter rose almost 6 days over the year-ago period. Management made the following comment on inventory in the 4Q conference call:

> *"Inventories ended the quarter at $2,288 million with inventory days at 128.* ***Our inventory was up $340 million from the fourth quarter of last year with 70% of the increase from new businesses and acquisitions and 30% of the increase from Chinese pre-buy and inflation.*** *We lowered our legacy manufactured inventory in most categories as we ran production below sales during the quarter."*

While the absolute inventory number may be up from acquisitions, we calculate our DSI number on a quarterly basis. The Godfrey Hurst acquisition closed on 7/2/18, meaning the third quarter should have had virtually a full period of cost of sales from the acquisition in the calculation. The Elaine Revestimentos Ceramicos deal closed on 11/16/18. While the company does not disclose what the value of inventory picked up in the deal was, the total purchase price was $148.7 million with over $53 million allotted to goodwill and intangibles. We therefore suspect that more of the increase in DSI (as opposed to the inventory balance itself) was a result of inflation than from acquisitions.

Later in the question and answer section of the 4Q conference call, management noted that some of the increase in inventory was due to a buildup related to new products:

Analyst

*"**So then my second question relates to inventory. I think you mentioned that you're sort of building, the stuff that you're making in LVT, the new LVT line is going into inventory right now.** I assume that means that you're going to be looking to launch this Pergo product, I guess, probably in the home centers I'm guessing and maybe other places too, in 1Q I'm guessing. So could we actually see inventory dollars down as soon as 2Q this year? And I mean on a year-over-year basis inventory dollars down? Or should – are we going to have to wait until later this year?"*

Jeff Lorerbaum:

*"…**we are expecting our sales to go up, so we're building inventories for those product categories before we have any sales.** And you have to build enough so that we can satisfy the customers. **Third is the inventory is also going into all these new businesses we go keep talking about. When you start them up, you put in all the raw materials, the inventories and you're building new products before the sales in those two**. So the inventories were all there. Frank, you want to touch a little bit on where the inventory distribution is at this minute, the inventory growth, distribution?*

Frank Boykin

*Yes. Like I said in my comments, about 70% of the $340 million of growth is in new businesses and acquisitions and the balance here in Chinese prebuy or inflation. **And I think another point to make there is that we worked real hard to take our inventory – manufactured inventory levels down by reducing production levels down below the sales levels. And I think we've done a pretty good job of keeping the manufactured inventories down in most categories**.*

Jeff Lorberbaum

*The growth in all these different businesses you have to put the inventories ahead. **So I don't expect the inventory turns to be what we like them going into the second quarter because it's going to take a while to get all these businesses up even though the inventory is there to support much higher sales.***

Analyst:

Okay. So inventory probably won't be down year-over-year until maybe the back half of the year is kind of what I'm hearing. Is that fair?

Jeff Lorberbaum

Yes, the turns – would be the turns right in the inventory."

We do not doubt that the company has cut production. However, with regards to inventory increasing in preparation for new product launches, we don't see much evidence of a buildup in raw materials and work in process inventory which are shown below as a percentage of total inventory:

	12/31/2018	9/29/2018	6/30/2018	3/31/2018
Finished Goods % of inventory	69.2%	69.5%	70.2%	68.6%
In-Progress % of inventory	7.2%	7.5%	7.6%	8.2%
Raw Materials % of inventory	23.6%	23.0%	22.2%	23.2%

	12/31/2017	9/30/2017	7/01/2017	4/01/2017
Finished Goods % of inventory	68.0%	68.6%	69.7%	69.3%
In-Progress % of inventory	8.2%	7.9%	8.0%	8.4%
Raw Materials % of inventory	23.7%	23.5%	22.3%	22.2%

While there was a sequential increase in the raw materials percentage in the 12/18 quarter, it was still down versus the 12/17 quarter while the finished goods percentage was up by 120 basis points.

There are a large number of factors impacting inventory which makes it difficult to get a clear picture of what is going on. Regardless, management appears to be indicating it will 2Q 19 before we see improvement in inventory turns.

Warranty Reserve Is Back to Previous Levels

We previously warned that the company's warranty reserve fell in the first half of 2018 as shown in the following table.

	12/31/2018	09/29/2018	06/30/2018	03/31/2018
Sales	$2,448.62	$2,545.80	$2,577.01	$2,412.20
Warranty Reserve	$47.51	$44.62	$38.97	$40.46
Allowance % of Sales	1.9%	1.8%	1.5%	1.7%

	12/31/2017	09/30/2017	07/01/2017	04/01/2017
Sales	$2,369.10	$2,448.51	$2,453.04	$2,220.65
Warranty Reserve	$39.04	$44.20	$45.08	$46.56
Allowance % of Sales	1.6%	1.8%	1.8%	2.1%

However, the company has rebuilt the reserve level over the last two quarters, and we are no longer concerned by this issue.

Explanation of EQ Rating Scale

Rating	Explanation
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.

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