BEHIND THE NUMBERS
EARNINGS QUALITY & DIVIDEND SUSTAINABILITY RESEARCH

BTN Research

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ConAgra Brands (CAG)-Sell

We see a high probability for disappointment with the Pinnacle Foods (PF) deal and the high debt load.

We recently looked at ConAgra (CAG) in an EQ-Review on July 26, 2018. We noted several headwinds such as cash flow growth has stalled despite cuts to advertising and stretching payables to suppliers with third-party lending arrangements. The company is covering its dividend at about 50% of free cash flow, but not its stock repurchasing that has been helping EPS growth:

Shares in mm	f2018	f2017	f2016	f2015
Avg Shares	407.4	436	438.5	431.3
EPS Growth from repo.	8.4%	0.1%	-1.7%	n/a

In fiscal 2018 (ending in May), CAG had a big surge in EPS growth from buying back shares. This will continue in f2019 at a slower rate as the ending share-count in May was 390.8 million shares or 4.1% lower than the average for the year of fiscal 2018.

However, as the merger with Pinnacle Foods is finalized in two quarters, CAG will issue about 77 million shares to Pinnacle shareholders and another 16 million shares issued for cash. This $10.9 billion purchase will boost Debt to EBITDA to 5.0x. The company has effectively said that the dividend will not grow this fiscal year (ending in June 2019). It also will devote free cash flow toward paying debt down until it reaches 3.5x EBITDA, which means little if any share repurchases combined with the new issuance of shares which should slow EPS growth.

The other issue comes from analyzing the deal. The price paid is key because there are three basic reasons to make an acquisition:

1) The price is so cheap, even if it performs poorly, it can still be attractive and produce solid return on capital.
2) There is so much fat to cut that earnings can be improved materially by picking low-hanging fruit and that will boost results – earnings/cash flow growth.
3) The target company is growing rapidly and can quickly grow into the value paid and produce a solid long-term return.

One can argue, other reasons may include acquiring a key breakthrough technology that helps the combined company even more. But, in the case of Pinnacle – we're talking about frozen green beans. Pinnacle was built using these rules in combination. Now, CAG is buying it for 15.8x EBITDA. Total debt will be about $11.5 billion and 5x EBITDA. To reach CAG's target of 3.5x EBITDA, it will need to pay down $3.5 billion, which is essentially 18 months' worth of EBITDA and they are not talking about fully digesting this deal and its benefits until 2022. Just a quick back of the envelope view makes this goal tough:

Pro forma EBITDA	$2,300
Taxes 21%	$200
Cap Ex	$350
Interest Exp	$575
Dividend	$410
Leftover	$765

This is a quick and simple look at the combined company operations and pro forma projections of trailing results. Capital spending is what the two companies have been spending, and interest expense assumes a 5% average rate. What is not in here is restructuring charges that will undoubtedly occur as the companies merge and pay severance, buy out contracts, redo computer systems, incur legal fees, etc. On the conference call, CAG expected to spend $355 million in cash to merge the companies and produce synergies $215 million by 2022. Also, working capital changes are not in here and higher prices alone for some raw materials may consume cash. The stated focus is also on investing more in the business. The company will argue there are some tax loss carry-forwards to mitigate some of this as well as asset sales that will be targeted. But, on the surface, paying down debt is going to take some substantial time.

Is there really much growth here? Both companies report that they are growing faster than the market – but this isn't a market growing at 20%. They are paying big multiples for posting largely flat sales. Without acquisitions, Pinnacle would have been reporting almost no sales growth.

Hidden marketing fees are also penalizing sales. Pinnacle has noted that extensions of existing product lines, new recipes, and other new themed marketing ideas are key to maintaining sales. However, stores often require slotting fees, greater marketing support, coupons, and even discounts on new products to place them in the store. These are accounted for as reductions to gross sales and are likely why there is little positive pricing here.

CAG's goal is to cut expenses enough to improve margins at Pinnacle by 700bp. But, this is an acquisition of a roll-up situation. CAG is paying a higher multiple for Pinnacle, than Pinnacle paid to acquire the companies that built Pinnacle. Pinnacle had the same plan and already boosted margins by 800-1000bp. Now that rate of change has stalled and CAG still expects to find 700bp more. This is one of the toughest types of acquisitions to succeed with.

Pinnacle did extensive work on restructuring. They have already closed surplus real estate, moved facilities closer to the raw materials, moved R&D, procurement, and sales teams to the same location to work more closely together. They have canceled external manufacturing and brought it house, cut the number of suppliers and types of materials used in packaging. Pinnacle is a company that has spent years accomplishing what CAG says it plans to do when it merges. We doubt there is much low-hanging fruit left – certainly not 700bp of fruit to pick.

Other minor headwinds include marketing, R&D, and amortization. CAG expects to invest more in the combined business, yet both CAG and Pinnacle cut advertising last year. Pinnacle also saw a drop in accruals for coupons and marketing. Pinnacle amortizes customer relationships over a much longer time than CAG – if combined on CAG's assumption schedule, the expense should rise. We see some potential for a one time boost to earnings by using CAG's rate of return on Pinnacle's pensions and CAG's bad debt allowance assumptions.

Sales Growth - Defined as a Volume * Price

One of the big things in Pinnacle's results is they tout how sales are growing faster than the industry as a whole. That sounds like a great story, but it quickly becomes obvious that given actual sales results – the industry is not growing. One of the keys to the deal was Birds Eye frozen foods. Pinnacle bought it in late 2009 when it has $1.34 billion in sales. Here are the sales for this unit since then:

$ in mm	2017	2016	2015	2014	2013	2012	2011	2010
Birds Eye Sales	$1,299	$1,305	$1,227	$1,185	$1,097	$1,104	$1,101	$1,066

After the deal, Pinnacle eliminated some lower margin products and sold some minor things. But, after 7-8 years, sales are back to $1.3 billion. So, this must be big growth. Unfortunately, we found that sales growth defined as changes in volume and pricing was not the primary player here

Birds Eye	2017	2016	2015	2014	2013	2012	2011
Sales Growth	-0.40%	5.60%	10.00%	1.70%	0.50%	0.20%	3.30%
Pricing	0.00%	0.80%	1.40%	-1.20%	0.40%	1.70%	1.20%
Volume	-0.30%	2.90%	3.30%	2.30%	0.10%	-1.30%	2.10%
Acquisition	2.10%	2.10%	5.30%	0.60%	0.00%	0.00%	0.00%
Recalls	-2.30%	0.00%	0.00%	0.00%	0.00%	-0.20%	Data

Pricing has been a modest at best source of sales growth. The volume gains have come from initial stocking of new brand extensions and adding some new stores – in other words – initial stocking of inventory. In 2017, destocking at customers was the reason for negative volume results. In years, 2016, 2015, 2014, and 2011 – Pinnacle said Birds Eye sales were higher based on increased distribution and new product launches such as new sizes or Disney themed inventory. The rest of the sales growth has not been organic – it was bought via acquisitions, which are greater than all the volume gains.

Looking at total sales growth at Pinnacle – it looks even more pronounced that acquisitions are driving the bulk of growth:

Total PF	2017	2016	2015	2014	2013	2012	2011
Sales Growth	0.50%	17.80%	2.50%	5.20%	0.60%	0.40%	1.30%
Pricing	0.20%	0.20%	1.30%	-1.10%	0.20%	1.60%	2.00%
Volume	0.30%	0.00%	-0.70%	0.30%	-0.90%	-2.30%	-0.80%
Acquisition	0.00%	17.70%	2.30%	6.20%	1.60%	0.00%	0.00%

Lesser brands like Vlasic Pickles and Aunt Jemima have been drags on sales volumes and offset gains made by Birds Eye and the rest of the frozen products. Without acquisitions, this company really isn't showing any organic sales growth at all. Thus, if the goal is to buy Pinnacle Foods to achieve top-line growth – we think that is unrealistic.

The Hidden Drag on Sales

Grocery stores have limited space to sell products. In addition, they want those products to turn quickly to drive their own sales, limit their inventory investment, and generate profits for the store. In addition, it is generally known that stores tend to make more profit on store-brand (private label) products. Thus, branded food has even less space to fill and needs

to convince stores that it's a profitable idea to carry these products. This is done basically by paying the store.

Pinnacle Foods defines sales as unit volumes x price – net of several other costs. Those other costs include cash discounts offered to stores, slotting fees (basically rent for shelf space), in-store marketing such as temporary price discounts, advertising in the store's weekly circular, and promotional displays, as well as coupons used by customers. There is not much of this that is fully quantified by Pinnacle Foods. Arguably much of it would come out of pricing not volume and this would help explain why pricing growth is weak or negative much of the time.

Going into new stores as expansion would require this type of in-store spending. The store is replacing another product with Pinnacle's and the store wants to see the new inventory sell. Thus, it will insist on marketing support payments.

As important, extensions of current brands also require support so customers know they exist. Pinnacle openly discusses how many new products it releases each year. Two things are key to remember, the new products are replacing something and that may be other Pinnacle items so there is often discussion about one product is growing and others beings destocked or SKU elimination. Also, new products can mature very quickly – again this isn't a new iPhone. We're talking about rolling out a family-sized frozen dinner or adding a 4-cheese frozen pizza to the line-up. Thus the discussion is often about how some products are growing, next year are not, and others are decaying. Discussions like this happen every year:

> 2017- Sales growth was driven by new Birds Eye Organics and Veggie Made Pastas offset by lower sales in frozen seafood and breakfasts. Duncan Hines 1-sized products boosted sales, while pie filling, Wish-Bone dressing fell.
>
> In 2015, Hungry-Man was falling. In 2016, new Hungry-Man Selects boosted sales. In 2017, Hungry-Man wasn't mentioned.

We won't write up every year here, but the lesson is clear – Pinnacle is maintaining essentially flat sales by eliminating some product and rolling out new product every year. The Annual Report continually touts its innovation philosophy in staying ahead of what customers want next. This goes back to even the public offering statements when the company cheered how 2011 saw 2.5% sales growth from new products. Total sales that year were up only 1.3%. So new product is a key part of what makes Pinnacle.

However, getting new product in the stores means they have to pay fees and marketing support to the stores and that comes out of pricing. New products also push existing ones out and thus cannibalize some of the volume. The net result is basically flat sales.

Cutting Costs – Boosting Cash Flow – That's CAG's Plan

If there has not been much if any sales growth, then CAG has two other options to make a deal work. Either pay a very low multiple or find many ways to cut costs. CAG cannot say it paid a low multiple. It paid a larger price for Pinnacle Foods at 15.8x EBITDA than Pinnacle paid for its major acquisitions:

Date	Purchase	Price	Sales	EBITDA	Price/Sales	Price/EBITDA	Margin
2009	Birds Eye	$1,340	$1,300	$142	1.0x	9.4x	10.6%
2013	Wish-Bone	$575	$190	$38	3.0x	15.1x	20.0%
2015	Boulder Brands	$975	$500	$62	2.0x	15.7x	12.4%
2018	Pinnacle Foods	$10,900	$3,154	$690	3.5x	15.8x	21.9%

The prices and sales figures were listed in announcements for the purchases. The EBITDA figures are estimated in most cases using partial year figures we found after the deals were completed and the Price/EBITDA figures were provided in some cases. The margin is EBITDA divided by sales.

It is obvious to us that CAG paid not only the highest multiples to buy essentially the same assets, but also Pinnacle Foods already cut costs significantly to boost profitability at these same operating companies given that it bought almost 60% of its current sales at margins of 10%-12% and now is almost at 22% for the full company.

The goal of CAG is to find $215 million in synergies at Pinnacle Foods where it can cut costs, do things more efficiently, and gain some savings by buying in greater bulk as it becomes part of a larger company. That's a 700bp increase in margin that is expected and is the figure used by CAG to forecast that the purchase price will only be 12.1x EBITDA after this is achieved in 2022.

Earlier, we pointed out the goal of CAG to pay down debt to 3.5x EBITDA. Without these forecasted synergies, that will require a $3.5 billion paydown. With these forecasts, it will

mean retiring about $2.7 billion in debt. That amount of debt paydown is going to be quite a stretch for a company expecting about $500-$700 million in free cash flow after the dividend which also wants to spend $355 million to try to produce synergies.

Also working against this goal is Pinnacle's results have not been showing dramatic gains on some of these deals in a while. Let's look at Birds Eye, Wish-Bone, and Boulder:

Birds Eye	2017	2016	2015	2014	2013	2012	2011
Frozen Sales	$1,299.1	$1,304.8	$1,236.0	$1,115.2	$1,096.9	$1,103.1	$1,100.8
Adj. EBITDA	$278.20	288.8	$260.7	$243.5	$242.8	$228.1	$226.0
Margin	21.4%	22.1%	21.1%	21.8%	22.1%	20.7%	20.5%

In the case of Birds Eye, it has seen some sales growth as noted earlier due to some acquisitions after 2014. However, look at the margin. Pinnacle bought this in 2009 with a margin of under 11%. They drove it to basically 21% in two years and since then, it has been basically 21%-22% for years. We will discuss what Pinnacle did below to achieve this in addition to focusing and continual roll out of new products already discussed. However, we think CAG is buying a business that has already undergone a huge reorganization to drive out costs and boost margin. The people at Pinnacle clearly had this focus and yet, they have been unable to pull out much more in the last 5-years. Now CAG plans to find another 700bp?

Wishbone we do not have great details about except this- Pinnacle bought it from Unilever and continued to have the production contracted to Unilever 18 months after the deal. Their goal was to move the production in-house after that time and be able to save enough in costs to essentially boost EBITDA to $65 million. That would require about $50 million in capital investment. So, they essentially paid about $625 million with the capital investment to buy $65 million in EBITDA or 9.6x EBITDA.

We do know that bringing the production in-house has happened and we believe EBITDA has increased since the purchase. However, we do not think Pinnacle has been successful in turning around sales at Wish-Bone. The company has cited lower sales at Wish-Bone in years 2015-18. The one exception was the 2nd half of 2016 when it said the launch Wish-Bone EVOO and Ristorante Italiano dressings offset some of the decay. By 2017, Pinnacle reduced SKUs at Wish-Bone and reworked some of the marketing and label design. Sales are still falling.

So, while this deal is too small for Pinnacle to break-out individually. Our best guess is that lower sales have hurt EBITDA while internal production has helped it. Perhaps the situation is sales in the $170 million range and EBITDA of $50 million. That would be below its own forecasts but still represent an improvement in cash flow vs. what was acquired. They have been working on this for over 4-years now. We're not sure how much more CAG can fix here.

Boulder may still be a work in progress, but it too is showing signs that it may have topped out in terms of margin gains in 2018. The company talked about some pricing pressure impacting results in 2018.

	1H18	2017	2016
Boulder Sales	$196.7	$403.4	$364.7
Adj. EBITDA	$38.1	$88.0	$59.7
Margin	19.4%	21.8%	16.4%

So again, Pinnacle Foods bought a company with a margin of about 12.4%, it improved it quickly and now seems to have leveled off at about 20%. It's early to make too many conclusions here, but here's another business that is about 13% of the sales CAG just bought where it needs to find 700bp of cost savings after the previous experts already improved it by that amount and are not seeing further gains at this point.

In our opinion, this is a classic case of a roll-up of another roll-up story. We've seen this before – Newell buying Jarden leaps to mind and even CAG's purchase of Ralston. The previous company has already claimed much of the low-hanging fruit in terms of cost savings available and they bought the assets at a lower price with room for improvement. It sells to the next company at a premium price with the promise that tremendous synergy potential still exists. Is there 700bp of improvement left here that Pinnacle ignored? We seriously doubt that.

Look at the Level of Restructuring Pinnacle Has Already Done on These Assets

Give some kudos to Pinnacle – they do their work. Reading any of the annual reports in recent years is devoted to a recap of how they culled out poor performing SKUs, launched new products, found new ways to boost efficiency and save on costs. We talked about how they essentially added Wish-Bone and built their own production assets there rather than acquire Unilever's above. Here are some little things that they discussed in the 2017 annual report:

- Processing more grains in-house in the off-season in a plant they own and eliminating the need for additional third-party contract work
- Boosting conformity in pallets to optimize logistics
- Reducing the number of packing materials and cutting number of suppliers
- Redesigned production floor layouts at some plants to boost productivity
- New digital marketing and investing in e-commerce
- Consolidated 3 distribution centers into one in Pennsylvania and 3 refrigerated facilities into one in California and still added capacity
- Acquired a new Wisconsin plant that will allow more production brought in-house

We are particularly focused on something like reducing number of suppliers and materials needed for something like packaging. One of the biggest areas CAG expects to improve is better buying power by being a larger company. Even here, Pinnacle already did much of this and will mute CAG's efforts.

The heavy lifting of deals often involves optimizing real estate and employee locations. Pinnacle has done a ton of this and it shows in the margin improvements it has already seen on these assets. Here are some from the Birds Eye deal before Pinnacle went public:

> *"On May 15, 2012, we announced plans to relocate the Birds Eye research and development ("R&D") team from Green Bay, Wisconsin to our new facility at our Parsippany, New Jersey headquarters. We believe that the relocation will allow for seamless collaboration between marketing, sales, procurement and R&D that will drive superior brand innovation, marketing and productivity."*

> *"On April 15, 2011, we announced plans to consolidate the Birds Eye Frozen segment's Fulton, New York plant operations into our Darien, Wisconsin and Waseca, Minnesota*

facilities in order to locate vegetable processing closer to the crop-growing region and thus reduce the related freight costs"

"On December 3, 2010, in an effort to improve our supply chain operations, we announced the closure of the Tacoma, Washington plant and the consolidation of production into our Ft. Madison, Iowa plant"

Some Other Potential Headwinds/Tailwinds for CAG

Merging the two companies together may result in accounting assumptions at Pinnacle changing to the levels used by CAG. For example, CAG amortizes intangible assets like customer relationships and licensing agreements over an average of 14 years. Pinnacle is much higher than that:

Relationships	Years	Gross	Net
Distributors	34	$176.4	$116.7
Food Service	10	$11.4	$7.4
Private Label	7	$1.3	$0.0

Right now, Pinnacle is reporting $5.2 million in expense on amortizing distribution relationships. If that is moved to CAG's 14 years, it could jump to $12.6 million.

On pensions, Pinnacle uses a 6.0% rate of return assumption on assets, while CAG uses 7.5%. The discount rates are similar enough, but the 150bp higher return assumption would give lower Pinnacle pension costs by about $3 million.

Bad debt expense, here Pinnacle maintains a reserve of 3.4% of receivables. That has already come down slightly. However, CAG has almost no reserve at 0.3% of receivables. If CAG adopts its own estimates, it could free up about $10 million in income in the first year. After that, bad debt expense would likely rise again.

We see a few more costs that appear more likely to increase for Pinnacle going forward, especially with CAG reporting that it wants to invest more in the business. For example, CAG already cut is advertising last year. So did Pinnacle. R&D has been an area where Pinnacle has spent money – it cut there last year. Also, accruals for marketing items like coupons, broker commissions, and marketing costs all fell at Pinnacle in 2017:

Pinnacle #s	2017	2016	2015	2014
R&D expense	$16.1	$18.1	$13.0	$11.3
Advertising	$29.3	$33.0	$28.2	$35.9
Coupon Accrual	$2.4	$5.00	$2.0	$1.9
Broker Accrual	$7.0	$8.	$4.5	$3.5
Marketing Accrual	$39.0	$51.1	$46.2	$36.2

Conclusion:

We will congratulate the Pinnacle Foods team for some hard work reorganizing some businesses and boosting profitability via new products and aggressive cost-cutting. Even they were unable to boost sales very much and that reflects what they already know – people eat out more these days and cook at home less. Therefore, it is very difficult to grow the top line especially when paying supermarkets fees and marketing stipends to support new product roll-outs.

However, we're not expecting a great match with ConAgra given the deal relies heavily on finding 700bp of additional margin gains from the Pinnacle assets. Margin gains have already stalled at Pinnacle and they are already at the point of using fewer pallet designs as a way to try to save more. We think the marrow is already gone from the restructuring bones and that sets up ConAgra for some disappointment after paying a premium multiple and taking on significant debt for this deal. Canned tomatoes and canned pasta seem unlikely to create big synergy opportunities with frozen vegetables and single-serving cake mixes. Stuff like Marie Calendar's should compete against the acquired Hungry-Man frozen entrees. Perhaps SKUs can be reduced, but if Pinnacle has shown anything – success requires continual new product launch and retirement of older SKUs.

ConAgra has been rewarding its shareholders with share repurchases to drive EPS growth as well as a rising dividend. Both of those are on hold now as it digests Pinnacle and pays down debt rather than returning cash to shareholders. Even CAG is not promising all its synergies until 2022 and will be focusing on Debt/EBITDA ratios and funding cash restructuring charges for several years. Some lesser brands could be sold at much-reduced multiples than what CAG just paid and that will continue to highlight the high price of this deal and the potential for unrealized promises as shareholders wait for years to see results.

Johnson Controls (JCI) EQ Review Update- 6/18 Quarter

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 Johnson Controls (JCI) with a 3- (Minor Concern)

We note the unusual benefit from warranty reversals in the quarter which we estimate accounted for all of the upside in adjusted EPS in the quarter. We also are concerned by the sequential decline in deferred revenue in the period which we will be monitoring closely going forward. Should such one-time benefits continue or any revenue recognition trends worsen, we will likely reduce the company's EQ Review Rating.

Warranty Reversals Add Over a Penny to EPS in the Quarter

JCI discloses information on its warranty accruals in the footnotes of its SEC filings. The table below shows information on expense accruals for warranties issued during the current period as well as accruals/(reversals) of warranties issued in previous periods:

	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017	3/31/2017
Accruals for Warranties for Current Period	$66	$75	$84	$91	$69	$70
Accruals (Reversals) of Pre-Existing Warranties	-$16	-$5	-$3	$1	-$3	$4

We note that despite an increase in revenues, the accrual for warranties made in the current period declined by $3 million. It is reasonable for such amounts to fluctuate some over time. However, what stands out is the unusually large reversal of previously accrued warranties in the 6/18 quarter. **We estimate the $13 million increase in reversals of pre-existing warranties would have added over a penny to EPS in the period**. According to Zacks, JCI's $0.81 adjusted EPS number was one cent above the consensus estimate in the quarter, implying that all of this upside could have been accounted for by this unusual reversal.

Receivables and Deferred Revenue

We noted in our review of the 3/18 quarter that JCI's accounts receivable days of sale jumped 5 days over the year-ago quarter, with much of the increase coming from the jump in the "earnings in excess of billings" component of receivables. Our concern was reduced by the fact that deferred revenue was increasing. However, while the growth in accounts receivable moderated in the quarter, deferred revenue posted a significant sequential decline. We refer to data in the table below:

	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017	3/31/2017
Sales	$8,120	$7,475	$7,435	$8,136	$7,683	$7,267
Reported Accounts Receivable	$6,895	$6,679	$6,731	$6,666	$6,443	$6,094
Reported DSOs	77.5	81.5	82.6	74.8	76.5	76.5
Earnings in Excess of Billings (in A/R)	$1,025	$1,065	$975	$908	$951	$863
Days of Sales	11.5	13.0	12.0	10.2	11.3	10.8
Trade Receivables DSOs	66.0	68.5	70.6	64.6	65.2	65.7
Deferred Revenue	$1,317	$1,543	$1,368	$1,279	NA	NA
Days of Sales	14.8	18.8	16.8	14.3	NA	NA
Billings in Excess of Earnings (in Def.Revenue)	$545	$565	$567	$451	$448	$472
Days of Sales	6.1	6.9	7.0	5.1	5.3	5.9
DSO-Deferred Revenue Days	62.7	62.7	65.8	60.4	NA	NA

We can see in the first three lines of the table that total reported receivable days of sales increased just one day over the year-ago period, which is not a concern. We can also see that the growth in the "earnings in excess of billings" component of accounts receivable also fell in-line with revenue growth, alleviating our concern with that aspect of revenue recognition.

However, the deferred revenue account showed a significant sequential decline. JCI did not break out deferred revenue in the 6/17 and 3/17 quarters, so we can not get a year-over-year comparison which would help in analyzing the trend. We note that the billings in excess of earnings component of deferred revenue only fell by $20 million sequentially, meaning that the remainder of deferred revenue fell by more than $200 million. This implies that there was either an acceleration in the recognition of previously deferred revenue in the quarter, or the pace of signing new contracts slowed considerably. Either way, this could be signaling a slowdown in revenue growth in upcoming quarters.

Inventory DSIs Down…

We noted in previous quarters that the company's inventories were rising which it attributed to preparation of increased order activity. As seen in the following table, inventory growth has moderated as inventory days of sales (DSIs) declined by over 2 days from the year-ago period.

	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017	3/31/2017
Cost of Sales	$5,648	$5,255	$5,266	$5,623	$5,252	$4,986
Inventory	$3,509	$3,565	$3,459	$3,209	$3,384	$3,138
DSIs	56.7	61.9	59.9	52.1	58.8	57.4

…While Payables Increase

We also noted in the previous review that accounts payable days (DSPs) increased in the 3/18 quarter, which seemed in-line with the increase in inventories. However, the current quarter saw a continuation in the trend of rising DPS which rose by more than five days compared to the year-ago quarter:

	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017	3/31/2017
Cost of Sales	$5,648	$5,255	$5,266	$5,623	$5,252	$4,986
Accounts Payable	$4,410	$4,250	$4,020	$4,271	$3,764	$3,720
DSPs	71.2	73.8	69.7	69.3	65.4	68.1

Given the decline in inventory days, it appears that the company may have extended the time it took pay suppliers to the benefit of cash flow. We are not overly concerned about this, as DSPs remain in a reasonable range from a historical perspective.

Illinois Tool Works (ITW) EQ Review Update- 6/18 Quarter

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 Illinois Tool Works (ITW) with a 3- (Minor Concern)

ITW's adjusted EPS of $1.97 was in-line with the consensus expectation, while revenue fell $10 million below expectations. The increase in accounts receivable DSOs was more modest in the 6/18 quarter, but deferred revenue showed a material sequential decline, leaving the possibility of aggressive revenue recognition open. Aggressive revenue recognition can be a serious sign of future problems but the fact we do not have a year-ago deferred revenue number to compare to, coupled with the smaller increase in receivables causes us to rate ITW a 3 rather than a 2. We also note that growth in inventories has leveled off, alleviating that area of concern.

Receivable Increase More Muted, But Deferred Revenue Declined

Accounts receivable DSOs showed a noticeable 3.4-day year-over-year increase in the 3/18 quarter was evidence that revenue was pulled forward into that quarter and possibly contributed to the revenue shortfall seen in the 6/18 quarter. However, as seen in the table below, the year-over-year increase fell to under 2 days in the 6/18 quarter:

	6/30/218	3/31/2018	12/31/2017	9/30/2017	6/30/2017	3/31/2017
Sales	$3,831	$3,744	$3,629	$3,615	$3,599	$3,471
Accounts Receivable	$2,878	$2,874	$2,628	$2,672	$2,629	$2,534
DSOs	68.6	70.0	66.1	67.4	66.7	66.6

Accounts receivable was essentially flat in the 6/18 quarter compared to a 4% sequential increase in the comparable period a year ago, giving more evidence that revenue recognition was less aggressive in the 6/18 quarter. While this trend still warrants close attention in the next quarter, the more modest increase in receivables alleviates the concern with receivables somewhat.

However, we also note that the company began reporting deferred revenue in its footnotes for the last three quarters:

	6/30/218	03/31/2018	12/31/2017
Sales	$3,831	$3,744	$3,629
Deferred Revenue	$236	$254	$205
Deferred Revenue Days	5.6	6.2	5.2

It is difficult to draw an analytical conclusion without a year-over-year comparison available, but the sequential decline of $18 million is a concern as it leaves open the possibility that the timing of recognizing revenue was accelerated, or there is a slowdown in new business being signed. This metric will provide more insight as we move forward and have historical data to establish a better trend.

Inventory Growth Back In-Line

ITW's inventory DSIs were showing notable increases in the 12/17 and 3/18 quarters, as seen in the table below:

	6/30/218	3/31/2018	12/31/2017	9/30/2017	6/30/2017	3/31/2017
Cost of Sales	$2,231	$2,181	$2,125	$2,094	$2,087	$2,003
Inventory	$1,320	$1,335	$1,220	$1,225	$1,199	$1,158
DSIs	54.0	55.9	52.4	53.4	52.4	52.8

However, the rate of year-over-year increase in DSIs slowed noticeably in the 6/18 quarter to 1.6 days and inventory balances declined sequentially. This alleviates our concern in this area.

Kellogg (K) EQ Review Update- 6/18 Quarter

Current EQ Rating*	Previous EQ Rating
2+	NA

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

We initiate coverage of Kellogg (K) with a 2+ (Weak)

Our 2+ rating for Kellogg stems largely from its aggressive use of receivables securitizations and extension of payables through its payables tracking system. Both of these factors have shown considerable improvement in the last two quarters. Nevertheless, we are concerned that the unwinding of these trends will put pressure on both reported revenue growth and cash flow growth over the next couple of quarters.

Adjusted Receivables DSOs Declined as Securitized Balances Decline

We noted in our review of the 3/18 quarter that K significantly increased its use of various receivables securitization vehicles throughout 2017 in order to offset the cash flow impact of offering customers more generous payment terms. Adjusted receivable days of sales (DSOs) which included the outstanding securitized balances at the end of each period were skyrocketing through the 12/17 quarter, as shown in the table below.

	6/30/2018	3/31/2018	12/30/2017	9/30/2017
Sales	$3,360	$3,401	$3,209	$3,273
Reported Receivables	$1,530	$1,601	$1,389	$1,512
Securitized Receivables	$962	$970	$1,120	$1,154
Securitized DSOs	26.1	26.0	31.8	32.2
Total Adjusted Receivables	$2,492	$2,571	$2,509	$2,666
Total Adjusted Receivable DSOs	67.7	69.0	71.3	74.3

	7/01/2017	4/01/2017	12/31/2016	10/01/2016
Sales	$3,175	$3,248	$3,097	$3,254
Reported Receivables	$1,427	$1,464	$1,231	$1,523
Securitized Receivables	$1,133	$1,014	$978	$806
Securitized DSOs	32.6	28.5	28.8	22.6
Total Adjusted Receivables	$2,560	$2,478	$2,209	$2,329
Total Adjusted Receivable DSOs	73.6	69.6	65.1	65.3

However, beginning in the 3/18 quarter, the company began to back off on its use of its securitization programs which can be seen in the 1.5-day YOY decline in the securitized DSO number in the 3/18 quarter followed by a 6.5-day YOY decline in the 6/18 quarter. Total adjusted DSOs were essentially flat YOY in the 3/18 quarter and declined by almost 6 days in the 6/18 quarter. Despite this decline in receivables, the company was able to report stronger than expected revenue growth in the 6/18 quarter.

There are many adjustments currently going on at K as it has eliminated its DSD (direct store delivery model) over the last several quarters. It is essentially delivering more of its products to customer warehouses rather than delivering directly to the store shelves. This leads to K charging customers less to reflect the lower level of service involved. As a result, sales and gross profits are under pressure, but this is being offset by lower delivery-related expenses. In the middle of all of this, the company is now backing away from securitizing receivables, which means it will either have to back off on generous payment terms for its customers or see a drain on its cash flow. The fact that total adjusted DSOs are declining seems to indicate it is offering less generous terms to customers and is still backing off on selling receivables. While we view this as a positive for earnings quality, it is leading to a significant headwind to cash flow growth. It also represents a potential headwind to sales growth if customers delay purchases due to a shortening of payment terms. These pressures should continue over the next couple of quarters.

Payables Continue to Rise but Pace Slows

We also noted in the 3/18 quarter review that K has utilize third-party financing arrangements it refers to as “receivables tracking systems” under which suppliers can sell their receivables from the company. This allows K to receive early-pay discounts while still delaying the time it takes to pay its bills. The following table shows the calculation of days payables (DSPs) as well as information regarding payables in the tracking system:

	6/30/2018	3/31/2018	12/30/2017	9/30/2017
Cost of Sales	$2,151	$2,149	$1,888	$2,041
Payables	$2,306	$2,230	$2,269	$2,140
DSP	97.8	94.7	109.7	95.7
Payables in Tracking System	$834	$724	$850	$798
% of Total Payables	36.2%	32.5%	37.5%	37.3%
Payables Sold by Suppliers	$572	$547	$674	$582
% of Total Payables	24.8%	24.5%	29.7%	27.2%

	7/01/2017	4/01/2017	12/31/2016	10/01/2016
Cost of Sales	$1,950	$2,088	$2,121	$1,990
Payables	$2,057	$1,995	$2,014	$1,986
DSP	96.3	87.2	86.6	91.1
Payables in Tracking System	$769	$731	$677	$692
% of Total Payables	37.4%	36.6%	33.6%	34.8%
Payables Sold by Suppliers	$556	$543	$507	$513
% of Total Payables	27.0%	27.2%	25.2%	25.8%

We can see that days payable was growing rapidly year-over-year until growth slowed to 1.5 days in the 6/18 quarter. We can also see the percentage of payables sold by suppliers has also fallen year-over-year in the last two quarters as well. The company specifically addressed the beneficial impact of extending supplier terms in its 10-Q:

> *"Our cash conversion cycle (defined as days of inventory and trade receivables outstanding less days of trade payables outstanding, based on a trailing 12 month average), is approximately negative 6 days and negative one day for the 12 month periods ended June 30, 2018 and July 1, 2017, respectively. Compared with the 12 month period ended July 1, 2017, the 2018* ***cash conversion cycle was positively impacted by an increase in the days of trade payables outstanding attributable to extended supplier payment terms."***

We have noted this issue with virtually all of the major food companies. K's DSP of 96.3 is substantially above the group average of approximately 80. Again, we would note that virtually all of the DSPs of the group are near historical highs. The slowdown in DSP growth along with the leveling off of the percentage of payables sold indicates the game is coming to an end and a material benefit to cash flow growth will end with it.

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 as 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 score 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.

Disclosure

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