BEHIND THE NUMBERS
EARNINGS QUALITY & DIVIDEND SUSTAINABILITY RESEARCH

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May 23 2019 | www.btnresearch.com

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RealPage (RP) EQ Review

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 initiate earnings quality coverage of RP with a 2- (Weak)

RealPage (RP) sells a software service to help rental properties find new leads, screen applicants, maximize rent, collect rent and deposits, ensure renters have insurance, as well as compile data among multiple units and properties. The company is routinely meeting guidance or exceeding it by 1-2 cents each quarter based on a non-GAAP EPS figure. It met guidance in 1Q19.

We are concerned with the heavy use of non-GAAP measures. Our concerns also include the continual growth through acquisition, using more aggressive assumptions on acquired assets vs. those internally developed – all of which create a stronger view of earnings and cash flow. We also see signs that growth may not be as strong as it appears and a lack of growth in deferred revenue may make RP more reliant on new sales to make forecasts:

- **All the acquisitions are problematic on the surface. Prices paid for deals is increasing as a multiple of sales and many recent ones were reported to have little or no EBITDA.** Customer totals are not growing even with acquisitions, revenue per unit is falling, and free cash flow after acquisitions is routinely negative. **(Negative Sign – company is not self-funding and some growth metrics are flat to down)**

- **Acquisitions keep R&D off the income statement and cash from operations.** If the company was doing all this R&D in house, it would be expensing the cost and lowering earnings and cash flow. **ROI as the situation exists with R&D being purchased is under 5%.** ROI and free cash flow become negative quickly assuming more of the deals are expensed. **(Negative Sign – even with aggressive accounting – returns are still poor)**

- **GAAP allows income to appear stronger than reality too. It's important to remember RealPage is not cheating – it's following standard accounting rules. However, those rules allow it to amortize parts of the acquired assets over periods 2-3 times as long as those developed in-house. Adjusting amortization periods so acquired assets match RP's other assets could erase GAAP EPS. (Negative – GAAP income is a function of using a longer amortization life for 25% of acquired assets)**

- **GAAP does not require amortization of goodwill. That is one of those issues that is not a problem until there are many problems and acts as an accelerator.** Goodwill is basically equal to book value. Of the last eight large deals, RP has $824 million in goodwill and reported about $30 million of EBITDA from those acquisitions. **Goodwill is being carried at over 27x acquired EBITDA! Goodwill is subject to valuation tests. RP may be at risk of a material impairment if growth slows. (Negative - this could impact growth plans for further deals and slow overall growth)**

- **Management pay is tied to acquiring growth rather than developing it in-house.** Bonuses track a metric called Adjusted EBITDA that adds back all acquisition costs, integration costs, and all amortization of acquired intangible assets. If the assets or customers come from in-house sales staff or R&D workers – the costs would be realized and lower the Adjusted EBITDA figure. **(Negative – company's incentives make it likely the growth through acquisition model will continue)**

- **Frequent use of non-GAAP metrics is essentially making acquisitions appear completely cost-free but still accretive to revenues and income.** RealPage is not only adding back interest, taxes, depreciation, and amortization – it is adding back every cost arising from acquisitions. It is adding back stock-based wages as though the employees would be fine earning less money if they didn't receive stock. There is no recognition of acquisition payments in these metrics (**Negative – non-GAAP metrics present a less than complete view of results in our view).**

- **Deferred revenue is not rising at the same rate as sales with DSOs falling too.** A sign of slowing is when a software company starts to lose its buffer of forward sales that become sales and income in future periods. **It starts to become more reliant on sales made in the current quarter to hit targets creating more volatility in results. It can also be impacted by pricing pressure on forward sales and RP's price per unit is falling too. The sales cycle is 3-6 months for larger clients** so that can add volatility too. **(Negative – signs of slowing growth are appearing)**

- **RealPage may be underinvesting in the business as capital spending is falling and depreciation as a percentage of sales added about 100bp to margins from 2016 to 2018.** Tech companies using older equipment may be more likely to lose the edge against competitors. **(Negative – lower capital spending can reduce future sales or cause future cash needs to rise suddenly)**

- **Share dilution is happening and the company may be dependent on a rising stock price.** RP is funding its cash shortfall by selling shares, issuing convertible debt, and paying employees with stock. Its growing share count is diluting earnings. **Its non-GAAP EPS figure adds back stock compensation as though employees worked for free. If the stock price stumbles, employees may insist on more cash wages – which are not added back in the company's EPS formula. That could cause reported EPS to fall significantly** and boost the P/E ratio at the time the shares are declining. **(Negative – like goodwill and impaired stock price could boost cash needs and lower EPS at the wrong time and create an accelerator to problems.)**

Growth Through Acquisition Is Increasing

RP notes that it can grow by adding new customers, raise prices, customers expand, or develop/acquire new products to add to its network use that to boost activity with customers and encourage renewals. It is obvious to us that RP is not adding new customers and the customers are not paying more per unit at this point. Much of the easy growth may have been achieved. However, customers are buying more properties and giving the company one last source of growth:

	2018	2017	2016	2015	2014
Number Customers	12,266	12,414	11,042	11,998	10,794
Number Units	16,219	13,003	10,989	10,568	9,560
Rev/Unit	$54.05	$57.77	$50.67	$44.36	$41.78

What is ramping up are acquisitions. The company made 40 purchases since 2002 and 12 of those have happened in just the last three years. RP says many times that it intends to continue this strategy of adding complementary products via acquisition. These are getting expensive:

	2018	2017	2016	2015	2014
Capital Exp.	$50,933	$49,752	$75,241	$33,384	$37,062
Acquisitions	$278,563	$649,910	$66,440	$45,282	$41,947
Other Acq. payments	$28,388	$8,491	$5,684	$3,684	$6,419

If one looks at reported cash flow and then accepts that acquisitions are going to keep happening – RP's cash flow on the surface is not covering this bill:

	2018	2017	2016	2015	2014
Cash Oper.	$244,807	$140,263	$129,449	$96,012	$69,972
Capital Exp.	$50,933	$49,752	$75,241	$33,384	$37,062
Acquisitions	$278,563	$649,910	$66,440	$45,282	$41,947
Other Acq payments	$28,388	$8,491	$5,684	$3,684	$6,419
Free Cash Flow	-$113,077	-$567,890	-$17,916	$13,662	-$15,456

Here are some purchase figures for larger recent deals:

	Price Paid	Revenue	EBITDA	P/Rev
Rentlytics	$57	$9	$0	6.3
LeaseLabs	$113	$20	$0	5.7
ClickPay	$221	$22	$0	10.0
Axiometrics	$78	$14	$0	5.6
LeaseRent Options	$300	$36	$10	8.4
On-Site Mgr.	$251	$50	$9	5.0
Am Utility Mgt	$69	$30	$5	2.3
NWP Services	$68	$58	$5	1.2

The price to revenue metric is rising and many of the recent deals have been listed as having immaterial or negligible EBITDA.

Plus, we have to ask, what is RP buying? All of this is supposed to help grow customer totals and boost revenue per unit. Yet customer totals are going down – they were 12,100 at the end of 1Q19. And, spending per unit is going down – it fell to $55.61 in from $59.17 in 1Q19, after dropping to $54.05 from $57.77 in 2018. Moreover, what really struck us after reading the 10-K was RP noting that a great deal of what its core business is essentially building a software bridge between other networks. For example, RP puts credit scores that it gets from third parties on lease applications, it sells other companies' insurance, it adds electronic calendars to track leasing progress. It also noted that one of the bigger competitors it faces are customers who simply build their own organizational helpers with a Microsoft Excel spreadsheet.

So why even go this route of doing so many deals?

Acquisitions are Keeping R&D Off the Income Statement and Cash from Operations

The primary impact of buying technology rather than building/developing it in-house, is the expenses are far lower so it inflates income and that helps ROI. On just the surface, here's what RP is reporting. We added back impairments to Operating Income and used a cash figure net of deferred revenue for capital:

	2018	2017	2016	2015	2014
Oper. Income	$68.1	$30.0	$32.0	$9.2	-$15.5
Cash less Def Rev	$102.6	-$52.8	$8.9	-$60.3	-$53.5
Financed Debt	$596.6	$648.8	$122.4	$40.3	$20.9
Equity	$1,063.0	$501.9	$384.8	$326.5	$328.8
Total Capital	$1,557.0	$1,203.5	$498.3	$427.0	$403.1
ROI on Avg Cap	4.9%	3.5%	6.9%	2.2%	n/a

Here's the amount of Product Development Expense spent internally that is going through the income statement compared to Acquisition Payments and Operating Income:

	2018	2017	2016	2015	2014
Oper. Income	$68.1	$30.0	$32.0	$9.2	-$15.5
Product Dev.	$118.5	$89.5	$73.6	$68.8	$64.4
Acquisitions	$307.0	$658.4	$72.1	$49.0	$48.4

The company simply wouldn't be profitable if RP was developing these technologies in-house and spending a fraction of what it does on acquisitions. Product expense would double or triple in recent years and wipe out income and ROI because the new product development would be treated as an expense. As it is, the ROI is routinely under 5%. We'll explore why that is overstated in our view below when we talk about GAAP rules.

But wait, it's cash flow that we should be concerned about, not income, right? Some of that acquisition cost is showing up as amortization that is reducing operating income. We agree and cash flow from operations adds back all the depreciation and amortization from internal operations and acquisitions. (It even adds back stock compensation to bump up cash flow). The company is touting that it has done 40 acquisitions and its operating model is to keep doing more. Therefore, we can also add back all the depreciation and amortization to cash flow and view acquisitions as an on-going capital expenditure item. This company routinely has negative free cash flow:

	2018	2017	2016	2015	2014
Cash from Oper.	$244.8	$140.3	$129.4	$96.0	$70.0
Capital Spend.	$50.9	$49.8	$75.2	$33.4	$37.1
Acquisitions	$307.0	$658.4	$72.1	$49.0	$48.4
Free Cash Flow	-$113.1	-$567.9	-$18.0	$13.7	-$15.4

GAAP Overstates Income With Acquisitions Too

The first interesting point for RealPage is it depreciates or amortizes almost all of its capital spending and capitalized internal software over 3-5 years. That's computer/data equipment, other equipment and furniture and software. All over 3-5 years.

However, when it makes acquisitions it assigns the purchase price to a number of areas and amortizes those accounts over longer times, plus under recent deals, the amortization periods are at the maximum:

Intangible Asset	Amort Period
Client Relationship	3-10 years
Developed Tech	3-7 years
Trade Name	1-7 years

Recent Deals	Client Rel.	Dev. Tech	Trade Name
Rentlytics	10 years	7 years	10 years
LeaseLabs	10 years	7 years	10 years
ClickPay	10 years	7 years	10 years
Axiometrics	10 years	5 years	3 years
LeasRent Options	10 years	7 years	2 years
On-Site Mgr	10 years	5 years	2 years
Am Utility Mgt	10 years	3 years	2 years
NWP Services	10 years	5 years	3 years

We know the gross carrying amount for all these intangible assets which includes all 40 deals. We also know what the company reported as amortization expense that lowered income. By assuming a shorter amortization period of 3-5 years that RP uses for all other assets on these intangible assets, EPS falls by a significant amount:

2018	Gross	3 yr amtz.	5 yr amtz.	Reported 2018
Developed Tech	$207.3	$69.1	$41.5	$23.9
Client Relationships	$264.2	$88.1	$52.8	$28.8
Trade Names	$23.0	$7.7	$4.6	$6.4
Total		$164.9	$98.9	$59.1
EPS Impact		-$0.91	-$0.34	$0.00

We concede that by using the gross amounts at year-end and amortizing over a 3 or 5 year period, this is more of a forward-looking amortization figure. The reported figure for 2018 of $59.1 million would have been impacted by the partial-year timing of acquisitions. However, RP reported EPS of $0.38 for 2018. Using a faster amortization period that matches what it uses on work developed in-house and its own equipment would significantly cut EPS.

In our view, even though GAAP requires RP to amortize these assets and that reduces earnings – the fact that it allows a slower amortization schedule for acquisitions than its other assets is helping reported earnings. Also, remember the 4.9% ROI figure? That was based on an operating income figure of $68.1 million. A faster amortization figure would overwhelm that reported operating income and turn ROI negative.

That isn't even the biggest problem. Recent deals have been assigning 73%-78% of the purchase price to goodwill. That is not amortized at all. The company has $1053 million in goodwill. $824 million of that total is coming from the eight deals we are highlighting. GAAP allows companies not to amortize goodwill – it would be a $165-275 million annual charge if it was amortized compared to $68 million in operating income.

Goodwill can be maintained if the discounted future cash flows can justify the valuation. Based on the data provided at the time of the eight acquisitions, EBITDA for those deals was about $30 million. That's an EBITDA multiple of 27x the $824 million in goodwill being supported. We know customer numbers are flat to down. We know revenue per unit is down. A goodwill write-down may be a real possibility here. Total Goodwill and Equity are essentially equal in dollar terms at just over $1 billion.

Another risk for goodwill is this company may have experience valuing goodwill and doing many deals – but only recently have the deals become so large. In the past an impairment was immaterial and the impact of an integration minor on the overall business.

On the positive side – the debt covenants at RealPage are based more on EBITDA and interest coverage. Equity is not an issue nor is free cash flow. However, a company growing with acquisitions could run into problems if it takes a goodwill impairment based on future growth forecasts not materializing to justify asset values. As we'll discuss later, it is paying employees with stock and if the stock falls in price – those payments may be required to be cash which exacerbates the problems. Of the eight huge deals, only one had a sizeable payment in stock which was $48 million and was 22% of the total price.

The third way GAAP allows acquisitions to overstate results is on cash flow. Free cash flow is a standard measure defined as cash from operations less capital spending – by that measure – RealPage looks fine:

	2018	2017	2016	2015	2014
Cash from Oper.	$244.8	$140.3	$129.4	$96.0	$70.0
Capital Spend.	$50.9	$49.8	$75.2	$33.4	$37.1
Free Cash Flow	$193.9	$90.6	$54.2	$62.6	$32.9

Free cash flow is growing, debt net of cash less deferred revenues is $453 million, net interest expense is only $24 million – it's all fine on first glance.

However, regular acquisitions are wiping out free cash flow entirely in all but 2015 and RP says doing more deals is part of its ongoing plan. Moreover, the company has contingent payments on acquisitions that are occurring in the financing section of the cash flow statement. This is almost becoming like capital leases inflating free cash flow [because capital spending does not appear in the investing section. Then only interest expense hits income and cash from operations, and the principal payment on the lease occurs in the financing section.] Thus, cash from operations adds back all the amortization, GAAP does not amortize goodwill, and GAAP allows similar assets to be amortized over longer times – that inflates cash from operations. Acquisitions are not considered capital spending and are often ignored as one-time events which raises free cash flow. Then, contingent payments occur in the financing section and are also ignored. Real free cash flow is negative as noted at the end of the first section.

GAAP essentially allows a company to ignore the cost of an acquisition in its presentations and simply monitor the value of acquisitions over time.

Management Pay Incentives Also Drive Acquisitions over Internal R&D

Management is paid a bonus based on performance for Adjusted EBITDA. This is a non-GAAP measure that starts by adding back Interest Expense, Taxes, Depreciation and Amortization to income. It then adds back adjustments for acquisitions and integration/professional costs of acquisitions, adds back litigation expense and costs for Hart-Scott-Rodino anti-trust reviews of acquisitions, of course, the amortization of the 25%

of intangibles subject to amortization and then stock-based compensation! Then there are no cash outlays recorded for acquisitions or capital spending at all.

In our view, if the company's operating model is based on doing acquisitions – that is an ongoing cost of business. Moreover, the fast depreciation and amortization lives indicate that a great deal of assets need to be replaced every year. There is no provision for any of this in adjusted EBITDA. Acquisitions essentially are assumed to have zero cost and only produce cash flow from any sales and income.

With that as the standard to determine pay – management has much less incentive to develop technology in-house. That would show up as product development costs and reduce the Adjusted EBITDA figure because it would start with a lower income figure before all the adjustments.

We know the growth is slowing on a few of the metrics such as number of customers and revenue per unit. We know that ROI is under 5% even with generous accounting treatments of acquisitions. We know that free cash flow after acquisitions is routinely a largely negative figure. But adjusted EBITDA ignores all of that and just marches upward:

	2018	2017	2016	2015	2014
Adj. EBITDA	$231.2	$163.4	$127.2	$92.2	$70.6

The company has a 10-page press release for earnings. The bulk of 8-pages are devoted to several non-GAAP measures to evaluate the company's results. These include Non-GAAP revenue, four sets of non-GAAP expenses, non-GAAP operating income, non-GAAP net income (which adds back taxes and uses a proxy for tax expense instead), non-GAAP weighted average number of shares, along with adjusted gross profit and adjusted EBITDA.

Deferred Revenue Is Not Rising at the Rate of On-Demand Revenue

The bulk of revenue here is the software as a service model. Customers agree to pay in advance for service and then renew every quarter or year. One of the key parts of this is the company is often flush with cash because of upfront payments. The company then records deferred revenue as a liability that is amortized as revenue over the time the cash payment will be applied. However, this cash amount is contributing less to cash flow from operations even though revenue growth is still rising rapidly with all the acquisitions:

	2018	2017	2016	2015	2014
On Demand Rev.	$833.7	$642.6	$542.5	$451.0	$390.6
Rev Growth	29.7%	18.5%	20.3%	15.5%	
Def Revenue	$125.6	$122.2	$95.9	$91.2	$80.4
Def Rev. Growth	2.8%	27.4%	5.2%	13.4%	

In the first quarter, deferred revenue was essentially flat from the fourth quarter. We do not have an issue with this operating model from an accounting or presentation standpoint. However, it is a red flag that the days of deferred revenue are declining:

	1Q19	4Q18	3Q18	2Q18
On Demand Rev.	$226.5	$218.1	$215.4	$206.9
Def Revenue	$125.7	$125.6	$115.6	$116.4
Days Sales	50.6	52.6	49.0	51.3

	1Q18	4Q17	3Q17	2Q17
On Demand Rev.	$193.3	$180.1	$161.6	$154.7
Def Revenue	$115.4	$122.2	$108.9	$107.0
Days Sales	54.5	61.9	61.5	63.1

The adoption of ASC 606 lowered deferred revenues by $3.7 million in 2018, but that does not begin to cover the size of the decline in DSOs. As the days of sales represented by deferred revenue declines, volatility could increase in results because the company becomes more dependent on making sales in the current quarter to hit guidance. That can be a problem. RP notes in its 10-K that its sales cycle for small clients is 1-6 weeks and for large clients 3-6 months. They are seeing the cushion erode and they appear to be more dependent on larger clients who take longer to sign up. Early in the report, we showed that the number of clients is actually flat, but the number of properties run by clients is rising.

Falling deferred revenues against sales can also be a signal that customers are not signing up for all the products RP offers, canceling some on renewal, or they are getting lower prices going forward. All of that means lower deferred revenue indicating future sales against more products/higher prices on prior sales. The metric of revenue per unit used to be growing. Now it has turned down y/y for several quarters:

Rev/Unit	1Q	4Q	3Q	2Q
Q1-19 and 2018	$55.61	$54.05	$55.17	$53.95
Q1-18 and 2017	$59.17	$57.77	$57.85	$56.51
Q1-17 and 2016	$53.65	$51.53	$50.28	$49.27

If the company needs to close more prospects, it may also noteworthy

RealPage May Be Underinvesting in the Business

When tech companies start to see lower depreciation and capital spending isn't growing – it can often mean they are using older equipment. That can make it tough to compete longer term and can also mean they need to ramp up spending going forward which would consume cash.

	1Q19	1Q18	2018	2017	2016
Capital Spend	$10.9	$12.7	$50.9	$49.8	$75.2
Depreciation	$8.5	$6.9	$28.5	$27.2	$24.5
Net PP&E	$154.00	$145.50	$153.50	$148.40	$130.4
Deprec % Sales	3.6%	3.4%	3.3%	4.1%	4.3%

Compared to 2016, RP picked up 100bp of margin from deprecation falling as a percentage of sales. That was worth 8-cents in EPS for a company that reported 38-cents. There has been a recovery in 1Q19, but capital spending was still down.

We have highlighted that the company does not have any free cash flow after acquisitions. It's also not as flush with cash as people think at first glance because much of the cash is restricted as it represents money owed to clients or is there as deferred revenue representing future service RP has already agreed to provide and that will pay employee wages. Cash of $356 million becomes $127 million as of 1Q19 when adjusting for those liabilities.

There are Share Dilution Issues as Well

A rising stock price makes it possible to use stock as currency. Amazingly, in the eight large recent acquisitions, it has only used stock in a meaningful way for the ClickPay deal with $48 million of stock. However, the company did issue $442 million in a secondary offering in 2018 to raise cash to pay for acquisitions. It also raised $345 million in 2017 with convertible bonds.

It also issues shares to employees for wages. We have seen this with several tech companies. When the stock is rising, everyone wants to be paid with more share-based compensation. When the stock is falling, no one wants shares. We think this is a risk that RP faces if growth is weakening as seen in deferred revenue trends, revenue per unit, and total customer growth.

Share-based pay is helping boost cash flow because the non-cash expense is added back to calculate cash from operations. It is also boosting management's adjusted EBITDA that is used for their bonuses. The company also adds it back in reporting its non-GAAP income and EPS figures. If they had to start paying employees with a greater amount of cash – the results would look much different:

	1Q19	2018	2017	2016
Share Comp	$14.9	$50.6	$45.8	$36.9
% Free Cash Flow	n/a	29%	51%	68%
% Adj. EBITDA	23%	22%	28%	29%

The company would lose a high percentage of free cash flow and adjusted EBITDA if it was forced to pay more bills in cash. EPS would also drop:

	1Q19	2018	2017	2016
Share Comp	$14.9	$50.6	$45.8	$36.9
Reported EPS	$0.12	$0.38	$0.00	$0.21
Non GAAP EPS	$0.40	$1.51	$0.93	$0.76
Non GAAP if wages are in cash	$0.28	$1.09	$0.59	$0.48

This is basically a $60 stock. Investors see it trading for 39x non-GAAP EPS and that EPS just grew 8% y/y in the first quarter. We already think that removing all expenses related to amortization and acquisitions overstates earnings – if the stock was weaker and the company had to pay wages in cash – the y/y growth in 1Q19 would have been 0% and the P/E on non-GAAP EPS rises to 55x. **There could be a sizeable risk of adjusted earnings getting weaker as the stock price falls and employees want more pay in cash.** Moreover, employees may have valued the stock even higher than cash. If they think they should earn $100,000 but will take $60,000 in cash and $30,000 in stock because they believe the stock will rise to $60,000. If that is no longer the perception, they may insist on total wages in cash of $100,000 rather than $90,000.

The share count is rising with all this too. The company has the convertible bonds that it intends to settle the principal amount with cash. The intent and the hedges in place to handle excess payments since the bonds can be converted at $41.95 per share is holding the share count lower than where it would be if the company planned to allow all the bonds to convert. Yet, here's the share count still rising:

in mm's	1Q19	2018	2017	2016
Share Count	95.6	91.5	82.4	77.8
Hedges	2.2	1.9	0.1	0.0
Adj diluted Shares	93.4	89.7	82.3	77.8

A growing share base as growth has shown signs of slowing is also a potential problem.

ResMed (RMD) EQ Update-3/19 Qtr.

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 maintain our earnings quality rating of 3- (Minor Concern).

- The year-over-year decline in warranty expense continued to add about a half a cent to EPS. In addition, cash spending on warranty settlement is declining as well, so we do not see the company as being significantly under-reserved for warranties.

- RMD recorded $6 million in equity losses in other income for its share of the losses in the Verily joint venture. Management predicts that those losses will approximate $7 million per quarter for the remainder of the fiscal year and into 2020. As we have noted before, we view such investments in research ventures as capitalized R&D. However, in RMD's case, the recording of the losses each quarter does impact the income statement immediately and to the company's credit, it does not add back the impairments to its non-GAAP earnings figures.

- A metric we track for RMD is the amounts of receivables that are financed by the company's customers under arrangements with independent third-party financing institutions. Remember that this is not a receivables factoring program where the company sells receivables, but rather a way for the company to help its customers finance their own purchases of the company's products. The percentage of the company's total revenue financed by such arrangements rose to 5.9% in the 3/19 quarter from 4.8% th e quarter before and 4.7% in the year-ago quarter. This is not as much an earnings quality flag as it is an insight into the health and sustainability of the company's revenue growth. We still do not view the increase in use of external financing by customers to be alarming yet, but there is a definite upward trend that should be monitored in future quarters.

- The company continues to make new acquisitions with Propeller Health being the most recent. Like many tech and medical companies growing via acquisitions, RMD chooses to add back amortization of acquired intangibles to its non-GAAP earnings. To put this in perspective, the company added back $17.6 million of amortization to its 3/19 quarterly results to arrive at a non-GAAP net income amount of $128 million.

This was up from $8.5 million in the year-ago quarter. Growth in the company's software as a service business is coming largely from its recent acquisitions of MatrixCare and HealthFirst which drove the increase in amortization of intangibles. We are not fans of this practice as it serves to ignore the price paid for the acquisitions and cost of the growth strategy.

Illinois Tool Works (ITW) EQ Update-3/19 Qtr.

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 maintain our earnings quality rating of 3+ (Minor Concern).

We note no major developments in earnings quality in the quarter.

- Inventory DSIs were up less than 4 days versus the year-ago quarter with most of the increase focused in raw materials. Management cited more favorable raw materials costs as a factor in the quarter and we are not overly concerned with the buildup in inventory.

- One of the main issues we have with the company remains the extent to which EPS is being boosted by the buyback. Average diluted share count fell by 3.8% in the 3/19 quarter. However, while trailing-12 free cash flow of $2.5 billion more than covered the $1.9 billion dividend, the remainder fell over $500 million short of covering the $1.9 billion in share buybacks. Just looking at the quarter, the buyback was $375 million with $1.5 billion forecasted for all of 2019.

- The company accelerated its restructuring program, resulting in a 6 cps headwind from higher restructuring charges. On the positive side, ITW does not add back restructuring charges in its non-GAAP numbers as many companies do. However, it does quantify the impact in its presentations of margin progression and cites the EPS impact on its conference calls. On the downside, the company does not disclose the progression of the restructuring reserve in its 10-Qs which takes away any insight as to when the cash is actually spent on the restructuring activity. The company does not even disclose the absolute dollar amount classified as restructuring expense in the quarter. We do know that just the increase in restructuring charges in the 3/19 quarter represented 70 bps of sales or about $25 million and the company takes regular restructuring charges. This is more than adequate to theoretically create a "cookie jar" reserve to draw on for ongoing operating expenses to potentially manage earnings which erodes the perceived quality of the company's reported earnings.

Mohawk (MHK) EQ Update-3/19 Qtr.

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 maintain our earnings quality rating of 3- (Minor Concern).

- Allowance for doubtful accounts fell again to 4.2% of gross trade receivables versus 4.8% in the 12/18 quarter and 5.4% in the 3/18 quarter. The company does not disclose provision expense or utilization of the reserve, so we cannot determine the exact benefit to earnings from the decline in the reserve percentage. However, we estimate that it would have taken an additional 11 cps in expense in the 3/19 quarter to have maintained the reserve at the same level as the previous quarter (4.8%).

- Quarterly amortization of capitalized costs to obtain contracts declined sequentially and year-over-year. Contract cost amortization as a percentage of average capitalized contract costs fell to 18.9% in the 3/19 quarter from 21.0% in the 12/18 quarter and 32.9% in the 3/18 quarter. This implies anywhere from a 1-5 cps reduction in expenses. However, the rate at which the company is capitalizing costs relative to sales has levelled out in the last three quarters which implied the net benefit to expense was closer to the 1 cps figure.

- Inventory DSIs continued to climb, jumping 8 days over the year-ago quarter. Management attributed this to two new plants as well as higher raw materials costs and tariffs.

Amortization Costs to Obtain Contracts

MHK amortizes certain incremental costs related to obtaining contracts related to setting up marketing displays in customers' stores. These costs are capitalized when the amortization period is longer than one year. As the following table shows, quarterly amortization expense of capitalized contract costs declined by 25% year-over-year despite a 28% *increase* in the capitalized costs balance:

	3/30/2019	12/31/2018	9/29/2018	6/30/2018	3/31/2018
Beginning Balance of Capitalized Cont. Costs	$57.840	$57.051	$50.400	$46.224	$43.259
Amounts Capitalized (plug)	$12.242	$12.879	$14.280	$25.331	$17.679
Quarterly Amortization of Costs to Obtain Contracts	-$11.048	-$12.090	-$7.629	-$21.155	-$14.714
Ending Balance Capitalized Cont. Costs	$59.034	$57.840	$57.051	$50.400	$46.224
Average Capitalized Costs	$58.437	$57.446	$53.726	$48.312	$44.742
Amortization % of Average Capitalized Balance	18.9%	21.0%	14.2%	43.8%	32.9%
Quarterly Sales	$2,442.490	$2,448.618	$2,545.800	$2,577.014	$2,412.202
Amounts Capitalized % of Sales	0.50%	0.53%	0.56%	0.98%	0.73%

Likewise, quarterly amortization expense fell by almost 9% sequentially despite the 2% increase in the capitalized costs balance. Quarterly amortization expense has been very volatile over the last five quarters on an absolute basis and as a percentage of average capitalized costs. The recent initiation of the disclosure does not allow for a long-term analysis of the trend, but if we just assume that amortization expense as a percentage of the average capitalized cost balance had remained steady with the 12/18 quarter (21.0%), it would have taken almost a penny off of EPS in the quarter. Likewise, if the amortization percentage had remained comparable to the 32.9% from the year-ago first quarter, it would have resulted in amortization expense being over 5 cps higher.

Typically, earnings quality issues arise when the rate of capitalization increases. From this perspective, MHK's rate of capitalizing new costs relative to sales has actually flattened int eh last three quarters. Therefore, we believe any net artificial benefit to earnings per share is closer to the 1 cps than the 5 cps figure. Regardless, this is an area to watch closely in future quarters.

Explanation of EQ Rating Scale

6- "Exceptionally Strong"	Indicates uncommonly conservative accounting policies to the point that revenue and earnings are essentially understated relative to the company's peers. Higher possibility of reporting positive earnings surprises
5- "Strong"	Indicates the company has no areas of concern with its reported results and we see very little risk of the company disappointing due to recent results being overstated from aggressive reporting in recent periods.
4- "Acceptable"	Indicates the company may have exhibited a minor "red flag", but the severity of the issue is not yet a concern. Minimal risk of an earnings disappointment resulting from previous earnings or cash flow overstatement
3- "Minor Concern"	Indicates the company has exhibited either a larger number of or more serious warning signs than companies receiving a 4. The likelihood of an immediate earnings or cash flow disappointment is not considered to be high, but the signs mentioned deserve a higher degree of attention in the future.
2- "Weak"	Indicates the company's recently reported results have benefitted materially from aggressive accounting. Follow up work should be performed to determine the nature and extent of the problem. There is a possibility that upcoming results could disappoint as the impact of unsustainable benefits disappears.
1- "Strong 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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