

EARNINGS QUALITY & DIVIDEND SUSTAINABILITY RESEARCH

BTN Research

Jeff Middleswart jmiddleswart@btnresearch.com

Bill Whiteside, CFA bwhiteside@btnresearch.com

April 9, 2020

www.btnresearch.com

Air Lease (AL) EQ Review

Current EQ Rating*	Previous EQ Rating
3-	na



Note that a "+" sign indicates the earnings quality improved in the most recent quarter while a "-" sign indicates deterioration

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

We are initiating coverage of AL with an EQ rating of 3- (Minor Concern) largely due to the inherent leverage of the operating model.

Air Lease, as the name implies, leases passenger aircraft to airlines around the world. The operating model is to buy new planes from Boeing and Airbus at reduced prices by purchasing the parts to finish out the interiors directly from suppliers at lower costs. Those planes are then leased out to airlines for the first third of the aircraft's 25-year useful life. The company frequently sells planes often still on lease and recycles the proceeds into more new planes. This keeps the portfolio young and highly sought after – especially considering frequent delays from the manufacturers in delivering planes.

We found only modest issues with some accounting procedures – the bulk of which impact adjusted returns more than GAAP results. Many of these are recurring costs that AL adds back to adjusted results such as amortization of debt issue costs and stock compensation while lumpy positive contributions to results – are left in results such as gains on asset sales and capitalized interest. As a heavy borrower, changes in interest rates may also have an outsized impact on results. **Right now – falling**

rates are likely to have a positive impact on EPS. A 10bp change in borrowing costs is worth about 10-cents in EPS vs. GAAP EPS of \$5.09 and 11-cents vs. adjusted non-GAAP EPS of \$6.91. Keep those EPS figures in mind as we discuss that some items that contribute up to 52-cents to those figures.

Several operating risks may carry greater weight than the accounting issues. These include dealing with a number of small airlines in remote areas that may rely heavily on leisure travel, that leases are in US Dollars not the airlines' local currency, and airlines are already asking for rent relief. The <u>WSJ</u> ran an article this week that warned aircraft values could fall during the shut-down and lead to write-downs in value on AL's balance sheet. We think this risk may be lower than what the WSJ reports, but with \$18.7 billion net of depreciation listed on the balance sheet for the fleet against \$5.6 billion in equity – even a small write-down would impact equity 300% more. Looking at the debt covenants, avoiding a material hit to equity appears the key to Air Lease's flexibility and liquidity options:

- Air Lease has significant liquidity. Even the company notes that in bad times, airlines can use Air Lease's balance sheet to help navigate the dip. Rental income is about \$160 million per month and cash expenses for interest, wages, and overhead are only about \$50 million per month. Air Lease has \$300 million in cash, \$6.1 billion available on a revolver, and \$18.7 billion in aircraft net of depreciation against only \$0.5 billion in secured debt. They can afford to work with customers.
- Debt covenants: Major tests are keeping unencumbered assets below 125% unsecured debt (AL could borrow about \$6 billion to buy more aircraft), Equity over \$2 billion (it's \$5.6 billion), and Total Debt/Equity under 3x (it was 2.4x in 4Q). This is the tightest test because hurting the equity balance boosts the ratio an 8% impairment to depreciated aircraft values (\$1.5 billion) would make this problematic or boosting debt by \$3.5 billion.
- Air Lease has an incentive to help airlines through the dip by deferring part of lease payments for 2 months. This is common and the lost rent is typically added to the remaining payments so the cash flow from the lease remains the same just the timing is changed. Also, it can buy more planes via sale leasebacks to provide cash to airlines and in return add to rent income. Having planes with scheduled profitable cash flow streams makes it tougher to call them impaired in our view.

- Four items work also against huge write-downs in aircraft values. AL buys new planes cheaper than most and they require less maintenance and burn less fuel making them desirable for a longer period of time, AL has sold 162 aircraft since 2014 and booked gains each year, the PV of future cashflows is being discounted at very low interest rates which holds value up, the grounding of Boeing 737-Max planes has left the market in shorter supply of available new aircraft.
- Air Lease's Adjusted results of \$6.91 per share benefited from adding back stock option expense for 19-cents and amortization of debt issuance costs by 33-cents. Both of these occur every year and Air Lease has been issuing over \$3 billion in debt per year. We think this also overstates reported adjusted ROE at 15.4% instead of 14.2%.
- Both GAAP and Adjusted results benefitted from capitalizing interest expense and gains on asset sales. In the case of GAAP, they should be in there, but investors should be aware that of the \$5.09 in EPS – it was helped by 42-cents and 37-cents through these two items. If adjusted results pull out lumpy expense items – why leave lumpy positive items in the adjusted figure? Adjusted EPS of \$6.91 was helped by 52-cents and 46-cents from capitalized interest and asset gains in 2019. Removing those items cuts adjusted ROE to 12.0%.
- **Depreciation assumptions look conservative to us.** This is the largest expense at Air Lease at 36%-37% of rental income. Air Lease's operating plan of finding ways to acquire planes at lower prices and the rate at which they depreciate them has allowed the company to book gains on asset sales annually since 2014. During that time, it has sold 162 aircraft as it continually refreshes the fleet.
- Interest Expense may be a tailwind for earnings in 2020 and 2021. Much of the debt is fixed, but it rolls over on a 1-8 year maturity schedule. New borrowings are happening at lower rates than debt being replaced. The revolver and modest term loans carry floating rates that should also be declining. We estimate that a 10bp change in average interest rate is worth about 10-cents in EPS. Interest expense in 2019 rose 22bp.

- The VIEs do not seem to offer much risk for an Equity Impairment. Air Lease manages aircraft portfolios for private investors in two partnerships. It has a 9.5% stake in each amounting to only \$87 million on the books. Another partnership involves a platform to manage and sell mid-life aged aircraft called Thunderbird. This only puts \$9.9 million of equity at risk. Thunderbird also helps AL sell some of its used aircraft too and earns its fees. Total aircraft for sale is likely about \$185 million after 1Q20 sales that have been announced.
- Investors should be aware of some specific customer risks. Rent and fuel are large expenses for airlines and are paid in US Dollars. Looking at AL's customer list, we think many are not getting customers who pay with dollars in places like Samoa, Mongolia, Kazakhstan, etc. That could be another reason customers ask for some rent relief. It also appears that many of the carriers rely on tourist travel, which may take longer to rebound. If many have problems at once, it may be harder for AL to take back a plane and get it leased to another carrier. Some of these issues can be mitigated by the airline having the foreign government as a lead investor as well.

Liquidity, Covenants, Working with Customers

Air Lease currently earns about \$160 million in rent per month from all customers. It reported in February that the start of the virus issues grounding more planes and cutting passengers was leading customers to seek to preserve liquidity:

"As you can imagine, again airlines have stopped flying, they have less cash coming in and I think Steve highlighted the fact that our airlines, particularly in China are the strongest airlines there. That being said, <u>there are some</u> <u>secondary and tertiary carriers that need cash, and so we've offered to buy</u> <u>aircraft outright</u>, we've offered to do sale lease back transaction, but in the line with that <u>several have asked for a one-month to two-month deferral of some</u> <u>lease payments and we will probably accommodate that</u>."

The company's cash expenses are fairly low. Interest expense is about \$40 million per month and SG&A for salaries and expenses are about \$10 million per month. Assuming zero rent revenue for three months and rolling over any additional debt

maturities on the revolver – it appears Air Lease would only need \$150 million in liquidity to pay its bills.

The bigger payments would come for buying new aircraft already on order and buying aircraft from customers. With that in mind, Air Lease appears to have sizeable liquidity:

- It ended 2019 with \$317 million in cash
- The \$400 million note maturity on March 1, was already prefunded
- The company issued \$1.4 billion of new notes at lower rates
- AL has an untapped \$6.1 billion revolver that was increased by \$300 million
- Remaining debt maturities for 2020 are \$1 billion.
- It spent a net \$635 million on aircraft in 1Q20 with most additional planned spending for 2020 weighted toward the end of the year.

In our view, AL is in good shape to offer rent relief in the form of deferred monthly payments. These are normally recovered in the future – they are spread out over the term of the remaining lease as reported on the February call:

"In some cases, we will allow partial or some deferment of a few months of lease payment. <u>We normally collect that over the remainder of the leasing terms</u> or the leasing duration of these aircraft."

So, the liquidity situation for AL is not overcoming lost rent. It's a matter of getting through March, April, and May and then collecting higher rent payments after that. It appears to have enough liquidity to get through this.

On the Debt Covenants – there are four to watch:

- The company needs to stay investment grade at BBB- or higher. It is currently BBB
- Minimum Equity Level of \$2 billion vs. \$5.6 billion at the end of December
- Unencumbered assets (planes) > 125% of consolidated unsecured debt. Aircraft were \$18.7 billion in December against \$13.3 billion in unsecured debt or 140%
- Leverage ratio of Total Debt to Equity < 3.0x. The ratio was 2.4x in December

Fitch put the whole aircraft leasing sector on negative watch in March but did not single out AL or downgrade any of the participants.

The minimum equity level is in danger from a write-down in the aircraft fleet's valuation. Assuming rent deferments are offered but are recovered later in the lease term – the actual cash flows received on the plane would be the same. With falling interest rates, taking the PV of those lease payments would also have less of an impact on the plane's valuation. Further mitigating an impairment is AL buys planes cheaper as we'll discuss later in this report and its depreciation rate has been sufficient to allow the company to report gains on asset sales of 162 planes since 2014. Also, delays in delivery from Boeing and Airbus have made newer planes in shorter supply in recent years. Every 5% hit to the company's carrying value of the fleet would hurt Equity by \$750 million. That would be offset by other earnings.

If the planes are marked down, AL could withstand a \$2 billion hit to plane value (11%) and still meet the 125% target on unencumbered assets to unsecured debt. Also, if it borrowed 100% of the purchase price – aircraft investment and debt could both rise by \$6 billion and meet the target (\$24.7/\$19.3 = 128%). Where this shakes out, lies somewhere between those extremes.

The Debt to Equity ratio is the one to watch more closely as we think this could be a tripping point before the other covenants. At the end of December, the ratio was 2.4x (\$13.7b in debt less \$0.3b in cash compared to \$5.6b in equity). The range here would be equity falling to \$4.4 billion, which is a \$1.5 billion hit to aircraft values (8%) or debt rising by \$3.5 billion.

In our view, this comes down to the carrying value of an asset being determined as the discounted value of future cash flows. In order to have an impairment on a plane as a result of the virus issues – it needs to be repossessed from a client and not put back in service quickly. It suddenly doesn't have a cash flow stream. That is why we think AL will work with clients to help them with their liquidity and adjust rents or do sale leasebacks on additional planes. With lease agreements on planes and getting paid by customers, we think that contracted cash flow stream in place is the biggest part of avoiding an impairment during this episode. If the equity figure doesn't fall – Air Lease has quite a bit of flexibility.

Adjusted Results Add Back Recurring Expenses

AL Adj. Stats	2019	2018	2017
GAAP Income for Common	\$575	\$511	\$756
Taxes	\$144	\$129	-\$147
Stock Comp.	\$21	\$18	\$20
Amort Debt Costs	<u>\$37</u>	<u>\$33</u>	<u>\$30</u>
Adj. Income for Common	\$781	\$697	\$664
GAAP EPS	\$5.09	\$4.60	\$6.82
Adj EPS	\$6.91	\$6.20	\$5.94
Adj. Pre-Tax ROE	15.4%	15.5%	17.5%

Air Lease reports pre-tax adjusted results along with GAAP results.

Taxes are the bulk of the difference and the company is very clear in labeling its adjusted EPS and adjusted ROE as being pre-tax. Disclosure is not only in tables, but also press releases presenting just the adjusted EPS figure with the label of pre-tax.

However, stock compensation and the amortization of debt discounts and issuing costs are being added back even though they happen every year. Every year these expenses occur and that should continue in the future. Look at how much debt financing happens at AL annually:

AL Stats	2019	2018	2017
Debt Issued	\$3,568	\$3,534	\$2,184
Debt Paid	\$978	\$1,271	\$1,304
Total Debt	\$13,712	\$11,662	\$9,800

AL is issuing \$3.5 billion of debt per year and growing its portfolio. We consider debt issuing costs to be a recurring expense.

The adjusted figure of \$6.91 in 2019 benefitted by 19-cents from adding back stock compensation and 33-cents from adding back debt issuance costs. Also, ROE on average equity falls from 15.4% to 14.2% without adding these recurring costs back.

Both GAAP and Adjusted Earnings Benefit from Similar Items that Add to Income

Air Lease capitalizes interest expense for the funds it borrows to put down deposits on new aircraft orders. The capitalized interest is a reduction to reported interest expense for both sets of earnings Air Lease presents. This is an annual item that appears on the financial statements, but we think it is important for investors to see how large this really is:

AL Interest	2019	2018	2017
Total Interest	\$457	\$363	\$304
Capitalized Int.	<u>\$59</u>	<u>\$53</u>	<u>\$46</u>
Adj. Int. Exp.	\$397	\$310	\$258
Amortiz. Debt Issue Costs	<u>\$37</u>	<u>\$33</u>	<u>\$30</u>
GAAP Int. Exp.	\$434	\$343	\$287

In both cases, Air Lease is adding back the Capitalized Interest that will be depreciated over the life of the airplane. GAAP certainly allows for that and these are long-lived assets. It is consuming cash. In the case of GAAP EPS of \$5.09, capitalized interest added 42-cents to EPS. For Adjusted EPS of \$6.91 – Air Lease is picking up 52-cents in EPS from this source.

The company also actively sells aircraft as well as buying them. In the last six years, Air Lease has sold 162 aircraft. It has earned a gain every year on these sales and they are lumpy. These are accounted for in a catch-all revenue line item called Aircraft Sales, Trading, and Other:

AL Interest	2019	2018	2017
Aircraft Sales, Trading, Other	\$100	\$49	\$66
Gains on Sales	\$52	\$29	\$39
# planes sold	30	15	31

If debt issue costs happen every year and are added back – why aren't lumpy gains that happen every year adjusted for? We have no problem with keeping both or adjusting for both, and we're certainly not going to say the company cannot continue

generating gains after doing it year in and year out – but keeping the gain and adjusting out the ongoing business expense is a little aggressive. These gains added 37-cents to GAAP EPS and 46-cents to Adjusted EPS. Without capitalized interest and gains – Adjusted pre-tax ROE falls another 220bp to 12.0%.

Looking at the Aircraft Sales, Trading, and Other line item – it jumped in 2019 more than just the gain. Normally, it's about \$20 million over gains looking back fouryears. In 2019, it jumped to \$48 million. Part of this incremental revenue came from customers forfeiting their security deposits on orders. It's not quantified by the company, but conceivably this could be an area of increased revenue in 2020 if customers decide to take on fewer planes they ordered.

Depreciation Assumptions Appear Conservative

As noted in the introduction – Air Lease focuses on buying new planes and leasing them for the early years of their useful lives. It often sells the planes before they reach middle age even those still on a lease Air Lease originated. New planes tend to have lower operating costs from more fuel-efficient engines, and they don't need major maintenance expenses in the near future. That helps make them desirable and can be remarketed.

For example – Thomas Cook Airlines in the UK ceased operations in September 2019. That carrier had 7 planes owned by Air Lease and 4 planes in a VIE of Air Lease – it was able to lease all 11 planes to new carriers within months.

For example, in 2017: Air Berlin, VIM, and Monarch Airlines all filed bankruptcy with six of Air Leases planes and in under six months all those aircraft had been leased to new carriers.

Delays from Boeing and Airbus on deliveries can create shortages of new aircraft. According to the 10-K:

"Over the past two years, we have experienced delays relating to certain aircraft scheduled for delivery in 2020 and 2021 and anticipate additional <u>delivery delays.</u> Our leases contain lessee cancellation clauses related to aircraft delivery delays, typically for aircraft delays greater than one year and our purchase agreements contain similar clauses.

Pursuant to our purchase agreements with Boeing and Airbus for new aircraft, the Company and each manufacturer agrees to contractual delivery dates for each aircraft ordered. However, these dates can change for a variety of reasons. <u>In the last few years, Airbus and Boeing have had delivery delays, and these</u> <u>delays have significantly impacted when our aircraft have been delivered.</u>

For several years, we have experienced delivery delays for certain of our Airbus orderbook aircraft, primarily the A321neo aircraft and, to a lesser extent, A330neo aircraft. Airbus has told us to continue to expect several months of delivery delays relating to such aircraft scheduled to deliver through 2022."

Air Lease uses a 25-year life with a 15% residual value for its planes. Most planes can convert to cargo and have even longer lives. Air Lease typically sells planes before they reach middle age. It also has several plans to reduce costs on the original purchase such as:

- Buying young planes in airline fleets via sale-leasebacks
- Buying several planes from Boeing and Airbus at a time
- Buying finishing parts separately such as seats, avionics, engines, et.al. rather than letting Boeing and Airbus acquire the parts and mark them up

Given that the company is buying planes cheaper than many others and focusing on highly desirable models often in short supply – we have a tough time arguing that they are being aggressive on depreciation – which is a major expense:

	2019	2018	2017
Rental Income	\$1,917	\$1,631	\$1,451
Depreciation	\$703	\$582	\$508
Dep %	36.7%	35.7%	35.0%

Also supporting conservatism is the company is routinely reporting gains on the sale of airplanes vs. the depreciated value.

	2019	2018	2017	2016	2015
Gains on Sales	\$52	\$29	\$39	\$62	\$34
Planes sold	30	15	31	46	24

At the same time depreciation arising from other areas that also appear conservative:

- Modifications to aircraft cabins are amortized over the term of the initial lease
- Major modifications that Air Lease pays for when aircraft is off-lease is capitalized and amortized over the remaining life of the plane
- Maintenance and overhauls are amortized over the period to the next overhaul
- Capitalized interest paid on deposits for planes on order is amortized over the life of the plane

Interest Expense May Be a Tailwind to Earnings

The bulk of AL's debt is in the form of unsecured senior notes ranging from 2.6%-4.6% interest rates with maturities of 1-8 years. That is \$12.4 billion of the company's \$13.7 billion in debt at December 2019. The other debt is mostly floating rate as is the \$6.1 billion revolver with a zero balance on it.

The notes were issued to support airplane purchases which the company expects to own for only the first third of their useful lives. That is why the senior notes are short – medium term maturities and AL has annual maturities of \$2.0-\$2.5 billion. Given the drop in interest rates with the economy, it seems likely that any new debt issued to acquire more planes or roll over maturities may come in at lower rates.

	2019	2018	2017	2016	2015
Debt at Yr. End	\$13,721	\$11,662	\$9,780	\$8,802	\$7,798
Total Int. Exp.	\$457	\$363	\$304	\$296	\$276
Avg. Int %	3.60%	3.38%	3.27%	3.57%	3.80%

This has been a headwind in 2018 and 2019. Already in 1Q20, AL paid some maturities and issued new notes at 2.3% and 3.0%. Every 10bp decrease in interest expense would add 9-cents to EPS on 2019 debt levels. With total debt levels rising as the company takes delivery of new aircraft, that would also boost the EPS more. On an average \$14 billion debt level, 10bp is worth 10-cents in EPS.

Other Potential Hits to Equity – VIEs, Assets for Sale

Air Lease manages aircraft on lease to airlines for two partnerships called Blackbird I and Blackbird II. From the description in the 10-K, it sounds very similar to Air Lease's normal operations. The details are very light, but the company owns 9.5% of each entity and the investments are valued at \$46.5 million and \$40.6 million. We do not know the leverage situation for either.

It also owns 5.0% of Thunderbird which is the platform, Air Lease uses to sell midlife aircraft and it earns a fee for managing the venture for investors. This is only on the books for \$9.9 million for Air Lease. Mid-life assets are where there could be some more room for mark-downs than what we see in the newer planes. This would be a minor impact to book value though in our opinion.

Air Lease also carries other aircraft held for sale in Other Assets rather than as part of its Investment in Aircraft category. This would be older planes, and some are still on lease. The total carrying value here is was \$249.6 million for eight planes. Air Lease expected to sell all eight during the year. We know in 1Q20, three planes were sold via Thunderbird for \$65 million.

Customer Issues to Be Aware Of

Air Lease works with 200 airlines in 70 countries. There are two issues that jump out immediately – jet fuel trades in US Dollars and so does Air Lease's rent payments. These airlines may be collecting revenues in other currencies and not necessarily Euros or Yen either. Here is a geographic breakdown of the customers:

	% of \$18.7b in Aircraft	% of \$1.9b in Rent
Europe	29.0%	27.7%
Asia w/o China	26.7%	25.3%
China	15.7%	18.6%
Mid East/Africa	12.0%	11.8%
Cent Am, Sth Am, Mex	6.0%	6.6%
US/Canada	5.3%	5.1%
Pacific, Aus, NZ	5.3%	4.9%

From a positive stand-point for creditworthiness, many of these customers have a large state-ownership position. The airlines are often used to foster tourism to the country and may even have code-shares and frequent flier miles with larger airlines. From a negative standpoint, many of these have few routes and tourist travel may take longer to recover.

They work with airlines many people would recognize such as American Air, Delta, Southwest, Virgin Atlantic, British Air, EasyJet, SAS, El Al, Emirates, Air China, Aero Mexico, Air Canada. However, they also work with some of these carriers:

Airline	Country	fleet size	cities served
Air Caraibes	French Caribbean	14	13
Viva Columbia	Columbia	21	16
RwandAir	Rwanda	12	29
Air Seychelles	Seychelles	7	6
Sriwijaya Air	Indonesia	30	25
Bamboo Airways	Vietnam	25	18
Belavia	Belarus	30	59
S7 Airlines	Russia	103	150
Samoa Airways	Samoa	4	7
Air Tahitinui	Tahiti	4	5
Armenia Aircompany	Armenia	2	9
SCAT Airlines	Kazakhstan	22	33
Air Vanuatu	Vanuatu	7	37

We just pulled some of these off Air Lease's Customer Map at random. (Here is the link <u>https://airleasecorp.com/customers</u> - you need to enlarge it to get the airline symbols to click on). We doubt that many of these airlines have customers paying them in dollars. Interesting to note, several are the Flag carrier for the countries like

Seychelles and Belarus. Also, the fleet size does not mean that every plane was leased by Air Lease to it.

We also think these airlines are going to depend more on the local population going on vacation or tourists flying from China, Japan, US to Tahiti, Samoa, or Vietnam.

This may give some scope about how many customers Air Lease may need to work with to keep planes in fleets and on lease. Also, in 2017 when Air Lease dealt with a company like Air Berlin going under or in 2019 when Thomas Cook ceased operations – other airlines were still expanding, and Air Lease was able to quickly moves those planes to other customers. That transfer of planes may take longer at the moment.

The status of the Boeing 737-Max could actually have some pros and cons at the moment. Air Lease only has 15 units in the current fleet with 135 more on order. Boeing suspended production in January. So, the new Maxs are unlikely to be delivered on schedule. Also, even if Boeing clears hurdles in the US to let those planes fly again – it likely has to get approval in all countries one at a time for clearance as well. That could make the grounding last longer. That is going to make airlines who were going to add 737-Max units need to find replacements. In the short term – that could make is easier for Air Lease to place and lease an existing plane with another carrier. This was indicated on the February call too:

"we got about a dozen carriers in Europe that probably feel that they will not have their summer season made because of the MAX even if we have a May or a June green light by the FAA, and we also still have to give a green light, foreign authorities doing so, so yes <u>we have a dozen airline operators just in</u> <u>Europe alone that are asking us for aircraft.</u> So, that's why I said in my prepared remarks, not only will this help our own growth in 2020, but <u>it will</u> <u>help our airline customers, particularly in Europe get through the summer</u> <u>season that they've already booked</u> and now for the second summer in a row, we will likely not have their MAX lift."

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

Behind the Numbers, LLC is an independent research firm structured to provide analytical research to the financial community. Behind the Numbers, LLC is not rendering investment advice based on investment portfolios and is not registered as an investment adviser in any jurisdiction. All research is based on fundamental analysis using publicly available information including SEC filed documents, company presentations, annual reports, earnings call transcripts, as well as those of competitors, customers, and suppliers. Other information sources include mass market and industry news resources. These sources are believed to be reliable, but no representation is made that they are accurate or complete, or that errors, if discovered, will be corrected. Behind the Numbers, LLC does not use company sources beyond what they have publicly written or discussed in presentations or media interviews. Behind the Numbers does not use or subscribe to expert networks. All employees are aware of this policy and adhere to it.

The authors of this report have not audited the financial statements of the companies discussed and do not represent that they are serving as independent public accountants with respect to them. They have not audited the statements and therefore do not express an opinion on them. Other CPAs, unaffiliated with Mr. Middleswart, may or may not have audited the financial statements. The authors also have not conducted a thorough "review" of the financial statements as defined by standards established by the AICPA.

This report is not intended, and shall not constitute, and nothing contained herein shall be construed as, an offer to sell or a solicitation of an offer to buy any securities referred to in this report, or a "BUY" or "SELL" recommendation. Rather, this research is intended to identify issues that investors should be aware of for them to assess their own opinion of positive or negative potential.

Behind the Numbers, LLC, its employees, its affiliated entities, and the accounts managed by them may have a position in, and from time-to-time purchase or sell any of the securities mentioned in this report. Initial positions will not be taken by any of the aforementioned parties until after the report is distributed to clients, unless otherwise disclosed. It is possible that a position could be held by Behind the Numbers, LLC, its employees, its affiliated entities, and the accounts managed by them for stocks that are mentioned in an update, or a BTN Thursday Thoughts.