BEHIND THE NUMBERS
EARNINGS QUALITY & DIVIDEND SUSTAINABILITY RESEARCH

BTN Research

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EPR Properties (EPR)
Initiate at BUY
EQ Rating of 4- (Acceptable)

We initiate coverage of EPR with a BUY rating and earnings quality coverage with a 4- (Acceptable) rating.

EPR is definitely a unique REIT in that it operates primarily in the entertainment areas where demand by consumers has been increasing. It has no exposure to retail shopping or office space. Instead, it focuses on movie theaters, Top Golf, water parks, ski resorts, and other eat-and-play destinations.

The overriding risk is the total amount of debt on these assets. Not only is EPR leveraged 4.7x adjusted EBITDA, but many of its customers operating the assets are leveraged 3-6x adjusted EBITDA also. EPR is also paying a dividend in excess of earnings and FFO at this point and adding back items like transaction costs and debt issuance/refinancing as one-time in nature that ignores EPR's business model includes paying those costs every year because that is how it grows.

Missing some rent payments from tenants for a month or two is unlikely to derail EPR in the long-term in our view. It has two years of revenue in cash on its balance sheet now. In fact, after being shut-in their homes, many consumers may flock to an entertainment venue like a water park, Top Golf, or movie when this is disruption is over. EPR's own cash obligations look manageable given its own liquidity.

It has the ability to pay the dividend now. Reducing the dividend may help EPR further retire debt (it drew down $750 million on its revolver recently). With its customers having their own financing obligations to pay without revenue coming in, they may ask for relief from EPR. Also, EPR is slowing its growth plans substantially in 2020. We doubt its cash flow will support the dividend in 2020. This is still a REIT and has to pay out the bulk of earnings as a dividend and is very unlikely to cut it to zero. A 20% cut would still leave this stock yielding 12%.

- EPR drew down $750 million on its credit line and along with cash already on hand has $1.25 billion in cash as of early this week. That is two years of revenues and it should be able to withstand tenants that need relief or slow-pay them.

- EPR also does not appear in danger of violating debt covenants even if rent income falls to zero for a couple of months. We still wonder if some customers will ask for relief that will reduce cash flow going forward too.

- AMC is over 17% of EPR's revenues. AMC is heavily leveraged with debt at over 6x EBITDA. Its EBITDA declined last year by $158 million largely due to a one-time rent relief of $35 million that did not recur and $44 million due to changes for lease accounting that now consider principal payments on capital leases part of rent.

- AMC's cash flow also looks overstated by adding capital spending contributions from landlords to operating cash flow. The heavy upgrades to theaters may be complete, which can improve AMC's free cash flow. Total rent from AMC to EPR is about $10 million per month. We believe EPR can work with AMC if necessary and withstand a hit.

- Cineworld is another 11% of AMC's revenue – and while it's not as leveraged as AMC, it has heavier near-term debt maturities and lower cash levels.

- The Resorts World casino in NY is also closed and its parent company has sizeable liquidity. Given that its other casinos rely more heavily on international tourists, it's possible the NY site opens and recovers more quickly.

- It is difficult to break out from the cash flow statement what are new investments and what are improvements to existing properties. We believe between tenant improvements and upgrades to movie theaters from landlords – EPR's capital spending is higher than is readily evident. Also, that runs counter to operating as a triple-net lease company where tenants are supposed to cover all property costs.

- We believe the adjusted REIT stats are overstating actual cash flow too. The company's maintenance capital spending looks too low. It is adding back stock compensation – yet it is spending cash to buy back stock for it. Making acquisitions are part of the operating model and growth plans – so transaction costs are not one-time in nature in our opinion.

- EPR remakes its portfolio often and that poses more risks in our opinion. It has owned and sold wineries, charter schools, retail centers over the years and moved into new areas like ski resorts and museums. It recently was about to invest $1 billion in a new casino investment and provided very minimal details about it. That would have been a sizeable amount of capital for one project. Weeks after announcing it would close in 2Q, EPR has now put the deal on hold.

EPR's Liquidity Is in Good Shape

The company has no maturity payments on its debt this year. It has total interest expense of $142 million and it has lease payments of $25.6 million per year. It also only has 62 full-time employees, so the wages are not an issue either. Preferred stock dividends would total another $24.1 million for the year.

On March 24, 2020, EPR disclosed that it has borrowed $750 million on its $1.0 billion revolver and has $1.25 billion in cash. On covenants, they are fine on the asset and debt ratios. The property operating income to unsecured interest expense needs to

exceed 1.75x – we calculate it as almost 4x. The Adjusted EBITDA must exceed fixed costs by more than 1.5x. Fixed costs are scheduled maturities of debt, interest expense, and preferred dividends. EPR is at 3.4x. Total debt was 4.7x EBITDA at the end of 2019 against the company's planned range of 4.6-5.6x.

In our view, EPR has the liquidity to survive 1-2 months of its tenants being closed and perhaps reopening in a partial manner (not selling all the seats in a movie theater to increase space between customers, opening the central part of the country in April but not in New York until May, etc.) Total revenue from tenants is about $54 million per month, so $1.25 billion in cash is two years of revenue on the balance sheet. If we cut $108 million off EBITDA as two months of lost revenue, EPR still passes its covenant tests. The interest test ratio would by 3.2x against the minimum of 1.75x and the fixed charge ratio would be 2.7x against a minimum of 1.5x.

The issue is, "does the dividend remain at $4.58 per share which consumes $352 million per year?" It said it will look to repurchase as much as $150 million in shares. As we will explore later, EPR is delaying plans for significant new investments that would be helping boost cash flow. Based on our adjusted cash flow estimates, EPR is unlikely to cover the current dividend from cash flow even before the virus impacts. It seems likely that EPR will focus on paying down its revolver too as the world returns to normal.

We doubt the entire customer base will find itself unable to pay EPR. Some would be getting government loans, others have some liquidity too. From the publicly traded companies EPR works with – many are carrying sizeable debt loads. That does create a risk for rent reduction on a temporary basis or in some cases the need for permanent rent concessions from EPR. Also, several of these are operated with a master lease agreement. That prevents an operator from culling off one or two underperforming locations. It also means that if EPR adjusts the rent – it should impact all the locations on the master lease.

AMC's Theater Rent Is 17.6% of EPR Revenue

AMC is a very leveraged operator with $4.9 billion in debt against an adjusted EBITDA of $771 million or a 6.3 multiple. Adjusted EBITDA declined from $929 million in 2018. Of that $158 million drop: $35 million came from a lease

modification in 2018 that reduced rent by $35 million in 2018. Also, prior to 2019, AMC had a sizeable amount of capital leases. That allowed it to only record the interest expense in operating costs and operating cash flow while the principal payments occurred in the financing section of the cash flow statement. Under ASC-842 rules, the full lease payment is now counted as rent. The result was rent expense rose by $44 million in 2019. Another change is a deferred gain was being amortized and reducing rent by $7.2 million is now eliminated. Finally, $18.3 million of intangible asset amortization was added to rent expense instead of depreciation & amortization. This last one is non-cash and the company's total non-cash rent was $25.7 million and was added back to adjusted EBITDA.

These key changes of 2018's rent being understated by $35 million and 2019 saw a $44 million addition by counting the full lease payments as rent makes us believe that the $771 million adjusted EBITDA for 2019 is much more realistic than the 2018 figure. Rent is now 17.7% of revenues up from 14.6% in 2018.

We also think cash flow from operations and free cash flow is overstated because landlord contributions for capital spending are being added to cash from operations:

AMC	2019	2018	2017
Cash from Landlords	106.5	127.6	133.3
Cash from Operations	579.0	523.2	537.4
Capital Spending	518.1	576.3	626.8
Free Cash Flow	60.9	-53.1	-89.4

Landlords are making one-time payments to help AMC upgrade theaters for better sound and reclining chairs. This source of cash is 18% of cash from operations – we would have put this in the investing section of cash flow. The company reports that these contributions do have an influence on reducing rent expense and thus it impacts an operating item. From the 10-K:

> *"The Company often receives contributions from landlords for renovations at existing locations.* ***The Company records the amounts received from landlords as an adjustment to the right-of-use asset and amortizes the balance as a reduction to rent expense over the base term of the lease agreement.***"

The company has really not had many years of positive free cash flow. On the positive side, much of these upgrades are now complete. AMC is forecasting that capital spending net of landlord contributions of only $275-$300 million in 2020. It likely can delay some of that too, which would help free cash flow. Arguably cash from operations before landlord contributions would be about $400-$450 million under normal circumstances and AMC would likely have posted positive free cash flow until Coronavirus.

AMC's rent expense is about $80 million per month, which it needs to pay whether theaters are open or not. Interest on its debt is $262 million per year. Depending on the due-dates for interest, the maximum to pay paid would be $130 million in the first half of the year. Maturities for 2020 are only $30 million. For two months of rent – total cash needs should be a max of $320 million during the closure.

Coming out of December, AMC had $332 million in availability on its credit lines and $265 million in cash. The secured leverage ratio is 2.6x (bank debt divided by EBITDA). The company faces mandatory prepayments with a percentage of free cash flow if the ratio exceeds 2.5x. The ratio cannot exceed 3.25x.

If we consider EBITDA to include zero revenue and zero cost for movies and refreshments as the theater is closed, there would be some wages but not bonuses. EBITDA would be -$80 million per month just from rent. If that becomes -$100 million per month, the secured leverage ratio becomes 2.8x after one month and 3.3x after two months. If AMC borrows $100 million on the credit line as EBITDA is a -$100 million per month – the ratio goes to 3.0x after one month and 3.5x after two months.

We think this does pose a risk for AMC to lose a month's business. We have our doubts that the entire chain stays closed longer than that, but a case could be made that hot-spots like New York may keep businesses closed for more than a month. Also, theaters may reopen but require more space between guests making it impossible to fill all seats. Assuming, it didn't pay EPR at all for a month, EPR would lose $10 million in cash flow. A bigger risk in our view would be that AMC would need to do a full restructuring to reduce its debt levels. That wouldn't mean that the court system shoots the employees and implodes the buildings. However, it could permanently lower AMC's rent payments to EPR and it may result in a delay of EPR being paid.

Other Major Theater Operators Are Not as Leveraged as AMC – but CineWorld Liquidity Is Not the Strongest Situation

In all, EPR works with 20 different theater operators. The next largest is Regal which is 10.8% of revenue at $75.8 million in 2019. Regal was acquired by CineWorld. Cinemark is another publicly traded chain where EPR may have some minor exposure.

EPR has the same issue with these chains in that they are currently closed due to the Coronavirus and yet they still owe rent to EPR. We think in both cases, the situation is not nearly as leveraged as AMC and these companies may have more access to capital to support their rent payments as structured.

Cineworld does not have the leverage of AMC, but it is not very liquid either. Debt of $3.5 billion against adjusted EBITDA of just over $1.0 billion gives it a debt ratio of 3.4x. The max is can be is 5.5x. The company has $134 million in scheduled maturities this year and interest expense is about $167 million. Total cash outflow for rent in 2019 was $613 million or $51 million per month. Maximum cash needed would be $268 million if they had to pay all their debt maturities, half their interest expense, and one month's rent during the closed period. Cineworld only had $140 million in cash and a revolver of $462.5 million. It also has more exposure to the UK and eastern Europe where the virus may be worse. The US rent may not be the biggest problem for Cineworld – and EPR has $6.3 million in monthly exposure here.

Cinemark ended the year with $2 billion in debt and capital leases against $745 million in adjusted EBITDA for a 2.7 leverage ratio. It had $426 million in cash and a $100 million credit line. They appear well under the maximum 5.0x senior secured debt leverage ratio and could likely tap the revolver if needed. Total debt maturities are $6.6 million and capital leases $22.4 million for $29 million due in 2020. Interest expense is $106 million or $53 million as a maximum payment over 6-months. Lease expense is $328 million or $27 million per month. So a month without being open, Cinemark would have a max $109 million in financing payments, for two months it becomes $136 million. They appear to have that well covered.

Resorts World Casino Is Leveraged Also

EPR has a ground lease for a NY Casino in the Catskills. The owner was acquired by Genting Malaysia. It operates other casinos and hotels in Malaysia, Bahamas, UK, and Singapore. Many of these locations are also currently closed due to Coronavirus and/or lack of air travel. In the case of this company – it is carrying significant debt at both the parent level and operating subsidiary level.

From the company's recent press release, total debt is about $3.5 billion and EBITDA is $600 million. The leverage ratio is 5.7x. However, the company had $1.25 billion in cash, so adjusting for that the ratio would be 3.3x and that seems to be some sizeable liquidity to deal with the current closings. It is also worth noting that while many of the other casinos would rely on international tourism, the NY casino would draw heavily from the population in New York. It may recover its business more rapidly than other properties.

The Accounting at EPR Has Few Concerns – But Capital Spending Needs Better Disclosure

The company operates largely as a triple-net lease REIT. It essentially collects rent and payments on mortgage loans and passes that through to investors in the form of dividends. As a triple-net operation – the tenant is responsible for operating the property, paying all taxes, insurance, and maintenance in addition to rent.

We have two issues with the presentation that are difficult to break out. The company does disclose the size of all its segments. It lumps theaters, eat & play, water parks, casinos into one division called Experiential and then its remaining schools into Education. **Also, despite a triple-net structure – we believe EPR is paying for some sizeable capital improvements at the properties.**

We know the movie theater operators have been renovating their PP&E. They have been adding bars, more food options, sound systems, and removing seats to install larger reclining chairs. **We have seen these operators say many times that it is getting capital spending dollars from their landlords for these changes.** AMC breaks their landlord contributions out at over $100 million per year as we noted above.

Cineworld which acquired Regal noted in its presentation that has deals with 87 landlords to help pay for upgrades.

In addition, EPR reports every year on how much of its portfolio has seen lease terms get renewed. Here are the last three years of disclosure:

> *"During the year ended December 31, 2019, we renewed 10 lease agreements on approximately 783 thousand square feet and funded or agreed to fund an average of $17.25 per square foot in tenant improvements. We experienced a decrease of approximately 6.3% in rental rates and paid no leasing commissions with respect to these lease renewals."*

> *"During the year ended December 31, 2018, we renewed four lease agreements on approximately 241 thousand square feet and funded or agreed to fund an average of $29.07 per square foot in tenant improvements. We experienced a decrease of approximately 1.7% in rental rates and paid no leasing commissions with respect to these lease renewals."*

> *"During the year ended December 31, 2017, we renewed 27 lease agreements on approximately 2.2 million square feet and funded or agreed to fund an average of $28.44 per square foot in tenant improvements. We experienced an increase of approximately 15% in rental rates and paid no leasing commissions with respect to these lease renewals."*

Notice that they are agreeing to pay for tenant improvements each year also. This is running from $7-$60 million dollars every year. Yet, the company makes no mention of this type of spending in its discussion. This type of capital spending is simply lumped into "acquisitions and investments in real estate." Acquisitions are the largest part of this, and it is difficult to fully assess EPR's free cash flow:

EPR Cash Flow	2019	2018	2017
Cash from Oper.	$439.5	$484.3	$398.3
Acq/Inv in R/E	-$500.6	-$187.4	-$397.6
Property under Dev.	-$134.6	-$275.0	-$384.4
New Mortgage Note	-$142.5	-$36.1	-$133.7
Old Mortgages Paid	$217.5	$335.2	$21.8
R/E sold	$216.0	$22.1	$191.5
Schools Sold	$449.5	$0.0	$0.0
	$544.8	$343.1	-$304.1

We agree that acquisitions should be viewed separately from other spending on existing assets as the acquisitions should create cash flow growth. It is obvious that combining all that into one line item, EPR would almost never show positive free cash flow defined as cash from operations less capital spending as the property under development also consumes considerable cash. Moreover, other key sources and uses of cash such as increasing mortgages and receiving mortgage payments are much lumpier as are asset sales that also occur regularly.

REIT Metrics May Be Overstating the Cash Generation Too

As a REIT, EPR has a sizeable depreciation expense that lowers net earnings. As a result, it uses FFO (Funds From Operations) and FFOAA (Funds from Operations As Adjusted) and AFFO (Adjusted Funds From Operations) to report base-cash earnings compared to the dividend.

Keep in mind, EPR has $24 million in preferred dividends and the $4.58 common dividend consumes $352 million in cash annually – so $376 million in outflows. We will compare the REIT metrics to that figure.

FFO – essentially removes gains/losses and impairments from Net Income and adds back depreciation/amortization.

FFOAA – starts with FFO and adds back transaction costs for deals, financing payments to refinance loans, cash fees paid with any gains.

AFFO – starts with FFOAA and adds back stock compensation, amortization of deferred financing fees then subtracts a small maintenance capital spending figure, non-cash mortgage income, and straight-line rental revenue.

EPR Cash Flow	2019	2018	2017
FFO	$338.6	$414.3	$327.4
FFOAA	$423.2	$460.4	$360.5
AFFO	$421.8	$466.3	$368.7

The metrics were expected to decline in 2020 as the company sold much of its school portfolio in 2019. Guidance was for FFOAA per share to fall from $5.44 to $5.19-$5.39 even with spending $1.6-$1.8 billion in 2020. On the surface – EPR's FFO was not enough to fund the dividend in 2019. Here are the problems we have with these metrics:

- The company has reported that lease renewals have reduced rent in 3 of the last 4 years. So, growth seems tied more to adding more properties.

- Because the company is consistently doing numerous transactions with the portfolio every year – are transaction costs and financing costs truly one-time in nature?

- The company is buying shares to cover stock options – so there is a cash impact to the stock compensation in our view that should not be ignored.

- The maintenance capital spending figure looks too low at $2-$5 million against what the movie theaters are getting from landlords and EPR's own agreements for tenet improvements on lease renewals. Here are the spending figures given from their lease renewal notes of dollars per sq. foot and amount of space:

	2019	2018	2017	2016	2015
Tenant Improv.	$13.5	$7.0	$62.6	40.8	$7.1
Reported Maint.	$5.4	$2.1	$5.5	6.2	3.9

We are going to leave FFO alone – Net Income plus Depreciation less gain/losses and impairments. However, we are going to subtract $30 million of capital spending for agreed-upon tenant improvements and contributions to the movie theater upgrades.

FFOAA – we are not going to add back the transaction costs that occur every year nor are we going to add back the costs of opening new financing arrangements and prepaying others as that happens annually too. We will subtract $30 million in capital spending too.

For AFFO – We start with our FFOAA and subtract the cash spent on shares for stock option programs and move the capital spending up to $30 million.

EPR Cash Flow	2019	2018	2017
FFO	$308.6	$384.3	$297.4
FFOAA	$331.0	$394.8	$328.5
AFFO	$325.4	$395.6	$335.5

Adding in some modest capital spending that is likely occurring and treating transaction related expense as recurring activities is enough to push all these metrics below the $376 million EPR is paying in dividends. This is the situation before the virus. Remember that losing AMC for a month would lower these figures by $10 million. Total rent is $54 million.

Also, EPR has put new investments on hold. It is not proceeding with a $1 billion casino deal that it announced only a few weeks ago. If it was going to spend $1.6-$1.8 billion in 2020 and still post lower FFOAA, then a lack of new portfolio growth could impact AFFO as well. As this situation ends, EPR may want to repay the borrowings on the revolver, which will consume cash. Most REITs by the rules for avoiding taxes have a high payout ratio for the dividend and a large debt load. EPR has the cash on hand to support its dividend too. We just think there is a risk that actual cash flows do not fully support the dividend in 2019, and forecasts before Coronavirus called for 2020 to come in lower. EPR touts its history of 6% dividend growth and that track record appears in jeopardy.

Let's not go overboard – as a REIT, EPR will likely not eliminate the dividend. It just may not keep the current 15% yield. A 20% reduction would still mean the dividend yield is 12% and the total payment of $305 million which AFFO could support more easily.

Properties and Continual Changing Creates More Risks

One of the issues EPR investors should be aware of is many of these properties are very specialized. This isn't office space. If a tenant wants to close or not renew the lease on a theater – what other tenant is going to lease it? If a water park isn't profitable enough or a restaurant/arcade isn't attracting enough business – how do those properties get repurposed?

We think this actually gives the tenants more negotiating power when it comes to leases or asking for capital spending from EPR. The fact that many of the tenants have significant debt loads also means EPR has an incentive to work with them to get past the current shut-downs on the theory of partial rent is better than none.

When we say EPR changes its portfolio often – it's almost an annual event. EPR used to own wineries, it sold them all. EPR used to own charter schools, it sold all of those. It used to be involved in shopping, restaurant centers in places like Toronto and White Plains which had problems and have been sold. This is a company with basically a $6 billion portfolio. Look at the level of asset sales, new acquisitions, and development going on:

	2019	2018	2017	2016	2015
Asset Sales	$665.6	$65.6	$191.6	$88.3	$51.5
New Investments	$500.6	$187.4	$397.5	$219.2	$179.8
Prop Development	$134.6	$275.0	$384.4	$413.8	$408.4

We think it is a risk for investors that EPR has made some sizeable changes to the business. Also, an incremental movie theater is one thing – but some of the newer investments have been much larger like buying ski resorts. We think investors should have been more alarmed that the company announced a few weeks ago it was planning to invest $1 billion in a new gaming venture. That would have been a 15% increase in real estate assets for one project.

Two weeks later EPR announced it was deferring that investment and several other projects in light of the changing environment. We think investors should be concerned over this type of potential concentration into one project. Moreover, the discussion on the conference call was incredibly lacking in details.

It did not mention a name or area where it is located. When asked if EPR already has a license for the casino – they deflected that. Asked why they originally intended to put money to work in smaller amounts per property and then committed $1 billion to one deal – EPR said the deal is just too good to pass. They said the cap-rate will be in the 8s and analysts in the gaming world will think the deal is very promising. It expected to complete the agreement within weeks and close in 2Q and two weeks later it was all deferred. That's quite a bit of activity in two weeks regarding $1 billion.

Altria (MO) Maintain SELL
Nine More Reasons the Worst May Not Be Over

1. BUD Investment on the books at $18.1 billion at the end of December 2019. At that time the actual value was $16.1 billion and MO did not write it down. The auditors specifically pointed to this in their statement as an issue to monitor. BUD is now worth $8.1 billion.

2. BUD cut its forecasts after 4Q results due to COVID-19 and expected a 10% decline in EBITDA. Bars, sporting events, restaurants are closed – which should hurt beer sales. BUD withdrew 2020 guidance this week based on COVID-19 issues having a much greater impact on sales than first thought.

3. MO is predicting a decline of only 4%-6% in cigarette volumes for 2020. The decay rate has been running higher than that for years now. That is a net number of losing current smokers and adding in new ones. The minimum age of 21 should pull the new smoker numbers down in a larger amount than before in our view.

4. Per the CDC – the occupations with the highest percentage of smokers are food service and hotel workers – they are largely unemployed now. A $7-$15 pack of cigarettes may not be their highest priority these days, which could hurt cigarette volumes too. MO will likely respond to volume decay by raising prices again.

5. MO's forecasts also include its IQOS rollout occurring as planned – could that now be delayed? What was actually expected is MO will benefit from stocking into the various channels and booking revenue before the sell-through of actual product happens – so this could still be a neutral item.

6. MO paid $1.9 billion for 45% of Cronos and took a $1.4 billion loss in 2019. Net of taxes, it is carrying the investment on the books at $1.0 billion. The fair value of those shares is now about $900 million.

7. Cronos is restating results from 2019. It's first quarter will see sales fall by $2.5 million – but sales were only $6.5 million. The third quarter will see sales

fall by $5.1 million compared to the reported $12.7 million. It is also dealing with SEC inquiries too.

8. Cronos spent some of MO's cash to buy another cannabis company owned by the CEO and another board member for 150x revenue in late 2019.

9. Resignations at Cronos and JUUL: Bruce Gates, Kevin Burns, James Monsees, Grant Winterton, Ken Bishop. JUUL has also stopped advertising and laid off staff. Have we seen the last of the impairments there?

Citrix Systems (CTXS) EQ Review

Current EQ Rating*	Previous EQ Rating
4-	na

6- "Exceptionally Strong"
5- "Strong"
4- "Acceptable"
3- "Minor Concern"
2- "Weak"
1- "Strong Concerns"

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 initiate earnings quality coverage of CTXS with a 4- (Acceptable) rating

CTXS is a provider of enterprise software solutions that allow employees to securely access applications and content across networks. In a nutshell, its products further the ability of IT managers to create virtual desktops that employees can utilize anywhere on multiple device types. The work-from-home movement created by the current COVID 19 crisis has served to lift CTXS's share price as most others have fallen. Please note that our rating is based solely on the analysis of the reliability of the company's reported results and in no way reflects any view of the company's near-term prospects in the current environment.

- CTXS is undergoing a major transition as it shifts its model from perpetual software licenses to a subscription model and on-premises model to a cloud-hosted model. This is similar to the shift that MSFT made towards its cloud-based subscription services over the last several years, although this is more magnified for CTXS given it is impacting virtually all of its products. The shift is having a profound impact on the company's reported revenue growth, profit growth, deferred revenue, unbilled revenue, and cash flow metrics that render surface level earnings quality metrics useless. This will be the case for some time, but a review of the current situation is useful for setting the stage for future analysis.

- CTXS is reporting slight revenue declines as declines in the Support and Services segment and Product and License segment are being essentially offset

by growth in the Subscription segment. This is due to existing perpetual license deals and multi-year service contracts being recognized upfront as opposed to Subscription agreements which are recognized over time. CTXS is still very early in the transition with only about 10% of the installed base of Citrix Workspace having migrated to subscriptions.

- The company has begun reporting an annualized recurring revenue growth number which is the annualized value of all recurring subscription deals at the end of the period. This figure has been growing by 40-50% for the last few quarters. While the company contends that the majority of the growth is from new customers, it is still benefiting significantly from a migration of existing customers that were previously on perpetual license deals. Before reporting ARR, the company was reporting the headwind to reported sales growth from the shift to subscriptions which was in the 700-800 bps range. It is reasonable to expect the headwind to have increased given the acceleration in the shift, but this serves to indicate that the near-50% ARR growth does not capture the true organic sales growth for the company.

- Cash flow has been declining during the shift to subscriptions as more money is paid upfront for perpetual license deals and multi-year service contracts. However, management has indicated that this should have run its course and we can expect to see cash flow growth to turn positive in upcoming quarters.

- Our main complaints regarding earnings quality at this point is the company's practice of adding back stock-based compensation expense to non-GAAP earnings. While this is a typical practice, in our opinion, this distorts the adjusted results as theses are amounts that the company would have to pay in cash if it didn't award the options. The add-back of stock compensation accounts for 15% to more than 30% of non-GAAP net income over the last eight quarters. What's more, it is increasing year-over-year which magnifies the distortion. For perspective, non-GAAP net income declined by 2.1% in the 12/19 quarter, but this decline widens to almost 10% if we subtract stock-based compensation from the non-GAAP figures.

Transition to Subscription Model

CTXS offers its functionality through multiple channels. Essentially, customers can buy a perpetual license for a lump sum and receive the software which they install on their servers and use indefinitely. They can also buy a term license whereby they pay a lump sum for the right to use the software over a specified time frame. Finally, they can subscribe to the company's cloud-hosted offerings where they pay a periodic fee to access the application online rather than license the software for installation on its servers. Think subscribing to *Office 365* rather than buying a disc you install on your computer.

The company reports revenue in three segments: Subscription, Product and License, and Support and Services. It also breaks out its Subscription revenue into SaaS (software-as-a-service) and non-SaaS components. The following table shows segment revenue for the last three years:

Table 1

	12/31/2019	12/31/2018	12/31/2017
SaaS	*$390.774*	*$273.771*	*$175.762*
Non-SaaS	*$260.036*	*$181.505*	*$138.973*
Subscription Revenue	$650.810	$455.276	$314.735
Product and License Revenue	$583.474	$734.495	$766.777
Support and Services Revenue	$1,776.280	$1,784.132	$1,743.174
Total Revenue	$3,010.564	$2,973.903	$2,824.686

Subscription Revenue is broken into two components. The SaaS portion consists primarily of cloud-hosted solutions. Revenue is generally recognized over the subscription term. Non-SaaS revenue consists of on-premise term licensing, CSP services and related support. Here, revenue is generally recognized upfront. *We note that before 2018, CTXS elected to recognize the revenue from term licenses over the license period, but the mandatory adoption of ASC 606 required the company to more aggressively recognize all term license revenue at the time of sale. This skews any comparison of 2017 results to 2018 and 2019.*

Product and License Revenue consists of revenue from perpetual term licenses which is recognized upfront.

Support and Services Revenue consists mainly of fees from support agreements under perpetual license offerings. These are recognized over the term of the service agreement.

At the end of 2017, CTXS announced it was accelerating its push to a cloud-hosted subscription model and away from perpetual subscriptions. We can see in the table above that the Product License and Support and Services Revenue segments have seen revenue declines which have been essentially offset by gains in the Subscription segment. However, as we will see in the following section, the flat overall revenue growth number is misleading given the difference in revenue recognition policies for each type of revenue.

The company discontinued its perpetual subscription products in the first quarter of 2020 but still offers on-premises term license products.

Impact of the Transition on the Numbers

The shifting of sales to the cloud-hosted subscription services (recognized over time) from term and perpetual licenses (recognized upfront) has had a significant impact on the company's reported results. Under the term and perpetual models, the company receives a larger up-front payment for the software license versus smaller, periodic subscription fees. As the revenue mix shifts to subscriptions, the receipt of cash is deferred. If a customer buys a perpetual license, CTXS will receive a larger sum upfront and recognize it all as revenue at the time of sale. This leads to an immediate boost to both reported revenue and cash flow. Likewise, term licenses typically span multiple years and thanks to ASC 606, these amounts are now recognized upfront as of 2018. However, if the same customer buys a subscription which the company bills annually, CTXS will receive a smaller payment in the first year and recognize that payment to revenue over time. This will lead to a smaller boost to cash flow and a much smaller boost to revenue in the first quarter of the term. However, the hope is that the customer will continue to subscribe over the years and the company will make more over time than it would have under the old model. The company states in its press releases that ***"we expect that average contract duration will increase, as more of our customers transition to the subscription model, which today typically has a 3-year duration and is a reflection of deepening and extending relationships with our customers."***

Annualized Recurring Revenue

We have already seen above that the shift in sales to the subscription model can be seen in the decline in sales of the Product and License and Service and Support segments with an offsetting increase to Subscription revenue. However, the resulting flat sales are not truly indicative of organic revenue growth as the revenue generated by existing perpetual license customers opting for subscription solutions instead will now be recognized to revenue over time rather than upfront. To help adjust for this, CTXS began disclosing Annualized Recurring Revenue (ARR) which the company defines as follows:

> *"[Annualized Recurring Revenue] represents the contracted recurring value of all termed subscriptions normalized to a one-year period.* ***It is calculated at the end of a reporting period by taking each contract's recurring total contract value and dividing by the length of the contract. ARR includes only active contractually committed, fixed subscription fees. All contracts are annualized, including 30-day offerings where we take monthly recurring revenue multiplied by 12 to annualize.*** *ARR may be influenced by seasonality within the year."*

CTXS is quick to point out that ARR is not intended to be a forecast of future revenue. It assumes that all customers with subscription terms less than one year continue to renew for at least the next 12 months. While there may be cases of people trying out subscriptions on a short-term basis who do not renew, we believe this is likely insignificant.

Table 2

	12/31/2019	9/30/2019	6/30/2019	3/31/2019	12/31/2018	9/30/2018	6/30/2018
Subscription ARR	$743	$672	$614	$557	$528	$481	$462
growth	*40.7%*	*39.7%*	*32.9%*				
SaaS ARR	$520	$463	$418	$375	$350	$305	$282
growth	*48.6%*	*51.8%*	*48.2%*				

Subscription ARR includes all subscription revenue such as SaaS and associated service and support contracts. SaaS annualized recurring revenue has been growing in the 50% range for the last three quarters. CTXS touts ARR as a "key performance indicator of the health and trajectory of our business." In the 12/19 quarter, 69% of

total product bookings were for subscription services which was up from 51% a year ago. However, underlying revenues are not growing that rapidly. The growth rate in ARR does not just reflect signing up new customers to subscriptions, but also existing term and perpetual license customers switching over. The company is still very early in switching its installed base over to subscriptions. Consider the following exchange on the 12/19 quarter conference call:

Analyst:

> "Okay. And then, can you give us any sort of an update on where you are on the what was existing installed base of Citrix Workspace in terms of how much is moving or are you seeing any bigger opportunity? Any color on where that on the installed base starting to move over to subscription and cloud?"

David Henshall- CEO

> "Yeah, let me take that one. ***We're early on still. I'd say that number is right around – less than 10% of the installed base. The installed base continues to move because we are still selling perpetual licenses. So, the installed base is growing while we transition. The amount of transition has moved up pretty materially over the last couple of quarters***. Probably most importantly is that we're still yielding the level of uplift that we talked about at our financial analyst meeting while the numbers get bigger. So, I think the opportunity is pretty significant and we'll be doing much more of that throughout 2020."

It is impossible to tell exactly how much of the growth in ARR is driving by customer migration. We reprint table 1 below for ease of reference:

	12/31/2019	12/31/2018	12/31/2017
SaaS	*$390.774*	*$273.771*	*$175.762*
Non-SaaS	*$260.036*	*$181.505*	*$138.973*
Subscription Revenue	$650.810	$455.276	$314.735
Product and License Revenue	$583.474	$734.495	$766.777
Support and Services Revenue	$1,776.280	$1,784.132	$1,743.174
Total Revenue	$3,010.564	$2,973.903	$2,824.686

We see that Product and License Revenue declined by $151 million in 2019 while Support and Services revenue declined by almost $10 million. Management has

indicated that the majority is new business, as in the following comment from the 12/19 quarter conference call:

> *I think if I remember correctly, it [Subscription ARR growth] was 33% growth in Q2, 40% in Q3, 41% in Q4. So, we're actually seeing an acceleration of that as the numbers get bigger.* ***And that's just a reflection of both net new, which is still the majority, as well as migrating more of the installed base going forward."***

Still, migrating existing customers must still be a significant driver of the growth in ARR. It will take a few more quarters to get a clearer picture of where reported revenue growth will settle. However, we note that prior to reporting ARR, the company was reporting an estimated headwind to sales growth caused by the change to subscription sales as being in 700-800 bps range. If the headwind is similar or slightly greater given the acceleration in the shift, it implies a core sales growth in the high single-digit range. As the shift continues over the next several quarters, we will get more visibility into the actual core revenue growth rate.

Deferred Revenue

As we discussed above, the shift in sales to a subscription model is resulting in less revenue being recognized upfront with more being deferred over time. This should be boosting deferred revenue. However, CTXS has always carried a sizeable deferred revenue balance which relates to Support and Services contracts which are also recognized over time. The company's description of deferred revenue from the 10-K states:

> *"Deferred revenue is primarily comprised of Support and services revenue from maintenance fees, which include software and hardware maintenance, technical support related to our perpetual offerings and services revenue related to our consulting contracts. Deferred revenue also includes Subscription revenue from our Content Collaboration and cloud-based subscription offerings."*

In table 3 below, we calculate a deferred revenue days of sales using the SaaS component of subscription revenue and Support and Services segment revenue:

Table 3

	12/31/2019	9/30/2019	6/30/2019	3/31/2019
SaaS Subscription Revenue	$113.000	$101.000	$91.000	$85.000
Support and Services Revenue	$439.584	$441.971	$452.210	$442.515
Total Estimated Revenue Booked Over Time	$552.584	$542.971	$543.210	$527.515
Total Deferred Revenue	$1,795.791	$1,615.572	$1,744.714	$1,756.717
Total Deferred Revenue Days of Sales	299.0	273.7	292.3	299.7

	12/31/2018	9/30/2018	6/30/2018	3/31/2018
SaaS Subscription Revenue	$78.000	$70.800	$64.800	$59.900
Support and Services Revenue	$461.299	$449.985	$439.511	$433.337
Total Estimated Revenue Booked Over Time	$539.299	$520.785	$504.311	$493.237
Total Deferred Revenue	$1,834.572	$1,680.002	$1,723.974	$1,685.184
Total Deferred Revenue Days of Sales	313.0	296.8	311.1	307.5

Despite the shift to more software revenue being recognized over time, the decline in Support and Services revenue more than offset it. The company explained the decline in deferred revenue in the 2019 10-K as follows:

> *"Deferred revenues decreased approximately $38.8 million as of December 31, 2019 compared to December 31, 2018 primarily due to a decrease in maintenance and support of $176.0 million, mostly from Workspace perpetual software maintenance of $66.7 million and Networking perpetual hardware maintenance of $58.9 million, partially offset by an increase from subscription of $146.0 million, mostly due to increased customer adoption of our cloud-based subscription offerings."*

Ordinarily, a software company posting a decline in deferred revenue while subscription revenues were increasing would be an enormous red flag. However, the move away from perpetual maintenance and support is offsetting the increase from subscriptions which makes it difficult to get a clear picture of revenue recognition patterns. This condition is likely to persist for some time as the base of perpetual maintenance contracts bleed off.

Unbilled Revenue

The impact of the shift towards subscription revenue can be seen more clearly in the unbilled revenue balance. The company explains that unbilled revenues primarily

represent future billings under subscription agreements that have not been earned or received and therefore do not show up on the balance sheet. The total of deferred revenue and unbilled revenue represents the total amount of revenue that will eventually be recognized under existing contracts.

The following table shows unbilled revenue for the last eight quarters:

	12/31/2019	9/30/2019	6/30/2019	3/31/2019
Unbilled Revenue	$704.83	$559.43	$484.21	$380.43

	12/31/2018	9/30/2018	6/30/2018	3/31/2018
Unbilled Revenue	$338.46	$243.21	$216.70	$85.30

The company explained in its 10-K that "unbilled revenue increased primarily due to an increase in multi-year subscription agreements as a result of an increase in customer adoption of our cloud-based subscription offerings."

> *"Deferred revenue and unbilled revenue are influenced by several factors, including new business seasonality within the year, the specific timing, size and duration of customer subscription agreements, annual billing cycles of subscription agreements, and invoice timing. Fluctuations in unbilled revenue may not be a reliable indicator of future performance and the related revenue associated with these contractual commitments."*

Cash Flow

As we discussed earlier, customers paid for perpetual licenses and multiyear service contracts upfront whereas a similar customer under a subscription will be billed over time for the service. As the company puts it:

> *"As a result of our subscription model transition, more cash will be collected in future periods as SaaS agreements are billed annually, as opposed to our perpetual business, which is typically billed up-front."*

Thus, a shift away from perpetual licenses will result in a drag on cash flow growth. This can be seen in CTXS's operating cash flow numbers over the last three years:

	12/31/2019	12/31/2018	12/31/2017
T12 Operating Cash Flow	$783.070	$1,035.345	$908.276
T12 Capex	$63.454	$69.354	$80.901
T12 Cash Paid for Licensing, Patents	$3.500	$3.210	$7.379
T12 Free Cash Flow	$716.116	$962.781	$819.996
T12 Dividends	$182.947	$46.799	$0.000
Dividend % of Free Cash	25.5%	4.9%	0.0%
T12 Net Stock Repurchases	$453.853	$1,261.153	$1,174.957
Cash Flow after Buyback	$79.316	-$345.171	-$354.961

This decline is not alarming as cash flow will resume growth in the future when the shift away from lump sum perpetual licenses fades in future quarters. Management addressed this issue in the 12/19 quarter conference call and indicated the headwind to cash flow growth is essentially over:

> *"That absolutely has been a headwind because, a year or two ago, when we talked about the majority of our customers not only were buying perpetual license, but were also buying multi-years of maintenance and paying for that upfront.*
>
> *As we've been unwinding that model to get to a much more pure, just a pure run rate, that's been a tremendous headwind to cash flow. And that's pretty much run its course. We haven't broken it out in a couple of quarters, but it's a very low percentage now versus where it was.* ***So, I think that headwind is pretty much gone at this point."***

It is worth noting here that CTXS initiated a dividend in 2018 and has scaled back its aggressive buyback. This is a mild concern as the reduction in share count has been a huge source of EPS growth in past periods. In fact, in the 12/19 quarter, the company reported a non-GAAP net income *decline* of over 2% (remember the subscription impact) but was able to log non-GAAP EPS *growth* of 2.4%.

Adding Back Stock Compensation to Non-GAAP Results Yields Unrealistic Results

Like many tech companies, CTXS chooses to add back stock-based compensation to its non-GAAP results.

	12/31/2019	9/30/2019	6/30/2019	3/31/2019
Stock-Based Compensation	$60.332	$54.486	$53.973	$51.535
Non-GAAP Net Income	$227.105	$201.456	$161.747	$172.071
% of Non-GAAP Net Income	26.6%	27.0%	33.4%	29.9%

	12/31/2018	9/30/2018	6/30/2018	3/31/2018
Stock-Based Compensation	$46.857	$41.664	$44.117	$28.221
Non-GAAP Net Income	$232.121	$197.435	$178.271	$183.624
% of Non-GAAP Net Income	20.2%	21.1%	24.7%	15.4%

The company gives the following justification for adding back stock option expense:

> *"Although stock-based compensation is an important aspect of the compensation of the Company's employees and executives, stock-based compensation expense is generally fixed at the time of the grant, then amortized over a period of several years after the grant of the stock-based instrument, and generally cannot be changed or influenced by management after the grant.":*

We understand that stock-based compensation expense is a result of amortizing the estimated value of stock options granted in the past. The amount of stock option expense in a given quarter does not perfectly reflect the value enjoyed by employees in that particular quarter. However, the fact remains that if the company had not awarded the options, it would have realistically had to compensate employees with cash. This is particularly true of an established company like CTXS.

The add-back of stock compensation accounts for 15%-more than 30% of non-GAAP net income over the last eight quarters. What's more, it is increasing year-over-year which magnifies the distortion. For perspective, non-GAAP net income declined by 2.1% in the 12/19 quarter, but this decline widens to almost 10% if we subtract stock-based compensation from the non-GAAP figures.

Stock-based compensation also has a meaningful cash flow ramification for the company. Below is the data from the cash flow table above adjusted as if the company had paid the equivalent stock option expense in cash:

Cash flow after dividend and repurchases would have been decidedly negative if the CTXS has paid the stock option expense in cash. This is one more reason to not add

that expense back to non-GAAP earnings figures when assessing profitability and returns.

	12/31/2019	12/31/2018	12/31/2017
T12 Operating Cash Flow	$783.070	$1,035.345	$908.276
T12 Capex	$63.454	$69.354	$80.901
T12 Cash Paid for Licensing, Patents	$3.500	$3.210	$7.379
T12 Free Cash Flow	$716.116	$962.781	$819.996
T12 Dividends	$182.947	$46.799	$0.000
T12 Net Stock Repurchases	$453.853	$1,261.153	$1,174.957
Cash Flow after Buyback	$79.316	-$345.171	-$354.961
Stock-Based Compensation Expense	$278.892	$203.619	$165.120
Adjusted Cash Flow After Dividends and Repo	-$199.576	-$548.790	-$520.081

Explanation of EQ Rating Scale

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