

Valuation Challenges Arising From the New Leasing Standard ASC 842: A Teaching Note

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Accounting Standards Codification (ASC) Topic 842, the new accounting standard on leasing, aims to improve transparency related to leasing and to enable users of financial statements to more readily compare firms that lease with firms that borrow to buy assets. The standard is effective for 2020 and has had a significant impact on the balance sheets of many firms. This note provides an overview of the accounting changes and highlights key issues related to financial analysis and valuation with guidance on how to avoid common errors and accurately calculate and compare enterprise value, EBIT, EBITDA, valuation multiples and key valuation ratios. We also explain how financial data providers, Bloomberg, Capital IQ and FactSet, have adapted the information provided on these metrics.

Keywords: operating lease, valuation, ASC 842

INTRODUCTION

Sir David Tweedie, the former head of the International Accounting Standards Board (IASB), joked while speaking in Toronto in April 2008 that “One of my great ambitions before I die is to fly in an aircraft that is on an airline’s balance sheet”.

After decades of discussion, the Financial Accounting Standards Board in the US (FASB) and the IASB released new rules for reporting leases which became effective for public firms beginning in 2019. This is an area where the two accounting standards have not fully converged. Deloitte, PWC and KPMG have issued guides which detail the standards and the differences between US GAAP and IFRS (see reference section). While both accounting standards moved leased assets onto balance sheets, differences remain. Under IFRS, operating leases no longer exist. All leases are now financial leases. Under U.S. Generally Accepted Accounting Principles (GAAP), the new rules maintain a distinction between finance and operating leases and move operating leases onto the balance sheets as right of use assets with corresponding liabilities. The intent of the accounting change was to increase transparency related to operating leases and to enable users of financial statements to more readily compare firms that lease and firms that borrow to buy assets. While including all leases on the balance sheet does indeed provide valuable information and facilitates comparisons across firms, the new rules, and the differences across the two standards have created challenges for those calculating and interpreting valuation metrics and multiples such as enterprise value, EBIT and EV/EBITDA.

This note provides an overview of the accounting changes and highlights key issues related to valuation with guidance on how to avoid common errors and accurately calculate and compare enterprise value,

EBIT, EBITDA, valuation multiples and key valuation ratios. We also explain how financial data providers, Bloomberg, Capital IQ and FactSet, have adapted the information provided on these metrics.

OVERVIEW OF CHANGES TO THE ACCOUNTING FOR LEASES

Public firms reporting under U.S. GAAP must now report for operating leases under the Accounting Standards Codification (ASC) Topic 842 which became effective for fiscal years ending after December 15, 2019. The new standard requires most lease obligations to be presented as a liability on the balance sheet, offset by a right-of-use asset related to the leased asset. The standard does not materially change the treatment of operating leases on the income statement or cash flow statement.

Under prior standards, leases were deemed to be either finance or operating based on several conditions, including the lease term as a percent of the useful life of the asset and the lease value compared to the asset value. The assets and liabilities of leases that were deemed finance leases were reported on a company's balance sheet, while the assets and liabilities of leases deemed operating leases did not appear on the balance sheet. Simply stated, short-term leases that did not involve a transfer of ownership were classified as operating leases and were "off balance sheet". If most of the value and useful life of the asset was included in the lease, then it was considered a financial lease and both the asset and associated liability appeared on the balance sheet. The liability was considered debt.

Despite the accounting treatment, for years many financial analysts, investors, rating agencies and creditors have employed a variety of techniques to adjust financial ratios and other information to treat operating leases as debt equivalents. The recommended treatment of leases is carefully explained in the 2009 paper by Aswath Damodaran and in the CFA Institute publication "Leases: What Investors Need to Know about the Standard" provides an excellent summary of similarities and difference between the standards.

Proponents of the change in accounting, including FASB, cite benefits including a clearer representation of a lessee's rights and obligations arising from leases and fewer opportunities for organizations to structure leasing transactions to achieve a particular outcome on the balance sheet.

VALUATION CONSIDERATIONS

This change in accounting provides additional transparency but also presents some challenges to those involved in valuation. For example, Ron Graziano, director of global accounting and tax at Credit Suisse, noted in a July 10, 2019 *Wall Street Journal* article that the new leasing standards may mislead investors. Brendan Houghton, partner of audit and assurance services at Deloitte & Touche, commented in the February 2020 issue of *Strategic Finance* that the ratios used to value equities and assess a company's performance may look very different after the new standards are applied. In this section we detail five issues to consider, post ASC 842 when calculating firm value, valuation multiples and other valuation metrics and use JetBlue Airways as a case study.

We recommend that you consider:

- 1) the impact of finance and operating leases on each financial statement and identify relevant information in the 10K or annual report
- 2) whether to include operating lease obligations when calculating enterprise value
- 3) how to consistently calculate EBIT and EBITDA across firms with different mixes of finance and operating leases or different accounting standards
- 4) if the numerator and denominator in valuation multiples are consistent with one another
- 5) how to incorporate operating leases into a valuation based on discounted cash flow analysis

Understand the Impact on Each Financial Statement

The classification of operating versus financial lease continues to impact where leases are shown on each of the financial statements. Understanding these differences is essential when calculating and interpreting valuation metrics.

- a) Firms utilizing operating leases must now recognize on the balance sheet a “right of use” asset that represents the lessee’s right to use the asset for the lease term and a corresponding operating lease liability (though both standards allow an exception for very short term or low value leases). Assets obtained through financial leases continue to appear on the balance sheet as Property, Plant and Equipment and the related liability is called a finance lease though in the past these were referred to as either finance or capital leases. Figure 1 in Appendix 1 shows the JetBlue Balance Sheet from the 2019 10K with information related to leases highlighted. Figure 2 shows details on leases provided in the notes to the financial statements. Under the new standard return on assets (ROA) and the ratio of liabilities/equity are more directly comparable across firms with different types of leases. For firms with operating leases the ROA will fall and the ratio of liabilities to equity will rise compared to historic levels as the lease assets and obligations move onto the balance sheet.
- b) The income statement treatment of leases has not changed. As in the past, firms with operating leases report a constant single lease expense each period which is shown as an operating expense. It may be shown as a separate expense but is often included in Cost of Goods Sold or Selling, General & Administrative expenses. The expense associated with finance leases is split between operating expenses (again included typically in either COGS or SG&A) and interest expense. The result is that as in the past, reported operating profit is lower for firms using operating leases.
- c) The cash flow statement treatment of leases has not changed. Operating lease expense is shown entirely in operating cash flows. Finance lease expense is split so that the interest portion appears in operating cash flows and the portion associated with debt repayment appears in financing cash flows. (See Figure 2 in Appendix 1.) This implies firms with operating leases will have lower operating cash flows and firms with finance leases will have lower financing cash flows.
- d) The new standard requires extensive disclosure regarding the amount and timing of leases and lease related cash flows (See Appendix 1 Figure 2). This can prove helpful in calculating valuation metrics and in developing a DCF valuation.

TABLE 1
IMPACT OF OPERATING & FINANCE LEASES ON FINANCIAL STATEMENTS

Lease type	US GAAP		IFRS
	Operating	Finance	Finance
Balance sheet			
<i>Asset</i>	Right of use/Operating lease asset	PP&E	Right of use asset or PP&E
<i>Liability</i>	Operating lease liability	Finance lease	Lease debt
Income statement			
<i>In Operating expenses</i>	Operating lease expense may be in COGS or SG&A	Depreciation on asset	Depreciation on asset
<i>Interest expense</i>		Interest portion of lease payment	Interest portion of lease payment
Cash flow statement			
<i>In Operating cash flows</i>	Cash payment of operating lease	Interest expense related to lease	Firms must follow the same classification for interest paid on other forms of financing and may be shown in operating or financing section
<i>In Financing cash flows</i>		Principal repayment portion of lease payment	

Let’s consider an example. A firm needs to acquire equipment and is considering 5 approaches:

- 1) Use all operating leases
- 2) Use all finance leases
- 3) Use bank debt

- 4) Use half operating leases and half finance leases
- 5) Use short term operating leases

The purpose of this example is to illustrate key impacts so to make this visually clearer we assume that the annual expense for acquiring the asset is identical under all approaches and equals \$6.5. In reality the lease expenses would likely differ and the accounting will differ over time and across operating and financing leases even if the total lease payments are identical. For asset acquisition using finance leases or using debt, the payment of \$6.5 consists of \$5.9 in depreciation expense and \$0.6 in interest expense. For operating leases the entire lease expense appears as an operating expense. The example assumes Revenues of \$100 and operating expenses other than leases of \$60. The asset related to the lease is valued at \$50 in cases 1 through 4. In case 5 the shorter length operating lease leads to a smaller value for the right of use asset and corresponding liability, here \$17.7. Other assets are assumed to be \$150 and other liabilities are assumed to be \$75. The resulting income statement and select financial ratios follow.

TABLE 2
LEASE IMPACT ON KEY METRICS

	Case 1 All Op leases	Case 2 All FN leases	Case 3 All Debt	Case 4 half Op; half FN	Case 5 Short term Op
Revenue	100.00	100.00	100.00	100.00	100.00
Operating Expenses excluding leases	60.00	60.00	60.00	60.00	60.00
EBITDAR	40.00	40.00	40.00	40.00	40.00
Rent on Op lease	6.50			3.25	6.50
EBITDA	33.5	40.0	40.0	36.8	33.5
Deprec from Fin lease		5.00		2.50	
Deprec on purchased assets			5.00		
EBIT	33.50	35.00	35.00	34.25	33.50
Interest from Fin lease		1.50		0.75	
Interest on debt			1.50		
EBT	33.50	33.50	33.50	33.50	33.50
Taxes (assume 23% ETR)	7.71	7.71	7.71	7.71	7.71
Net income	25.80	25.80	25.80	25.80	25.80
Total assets	200.0	200.0	200.0	200.0	167.7
Total Debt + Fin leases	0.0	50.0	50.0	50.0	18.0
Total Liabilities	125.0	125.0	125.0	125.0	92.7
Equity at book value	75.0	75.0	75.0	75.0	75.0
<i>EBITDAR margin</i>	40.0%	40.0%	40.0%	40.0%	40.0%
<i>EBITDA margin</i>	33.5%	40.0%	40.0%	36.8%	33.5%
<i>EBIT margin</i>	33.5%	35.0%	35.0%	34.3%	33.5%
<i>Net margin</i>	25.8%	25.8%	25.8%	25.8%	25.8%
<i>ROA</i>	12.9%	12.9%	12.9%	12.9%	15.4%
<i>ROE</i>	34.4%	34.4%	34.4%	34.4%	34.4%
<i>Liabilities/Equity</i>	166.7%	166.7%	166.7%	166.7%	123.6%
<i>(Debt + Fin leases)/Equity</i>	0.0%	66.7%	66.7%	66.7%	24.0%
<i>EBITDA/Interest expense</i>	<i>nm</i>	26.7	26.7	49.0	<i>nm</i>
<i>EBITDAR/(Interest + Lease pmt)</i>	6.2	6.2	6.2	6.2	6.2
<i>Lease impact on Operating cash flows</i>	(6.5)	(1.5)	(1.5)	(4.0)	(6.5)
<i>Lease impact on financing cash flows</i>	0.0	(5.0)	(5.0)	(2.5)	0.0
<i>Total lease impact on cash flow</i>	(6.5)	(6.5)	(6.5)	(6.5)	(6.5)

Key take-aways:

- EBITDAR is identical across approaches in this example due to our assumption of an identical lease expense. While the similarity is exaggerated here, EBITDAR does provide more comparability and therefore is often used to compare firms in industries where both operating and finance leases are heavily utilized.
- In the cases of all finance lease and all debt, EBITDA is greater than in the other cases since no lease expense is recorded.
- All metrics here are identical for Cases 2 and 3 since a finance lease is equivalent to debt.
- EBIT is lower when operating leases are used since the entire lease expense is considered an operating expense while the interest portion of a finance lease appears below EBIT.
- Net income is identical in this example due in part to our simplifying assumptions. In reality there could be slight differences across the approaches.
- Since all lease related assets are now on balance sheet the ROA is identical across Cases 1 through 4. In case 5 the shorter term lease leads to a lower value of the lease obligation and right of use asset so ROA is higher. At the same time using a short term operating lease leads to lower liabilities to equity.
- Operating leases lead to lower operating cash flows and higher financing cash flows.

Should Enterprise Value Include Operating Leases?

Enterprise value (EV), also called firm value, is an estimate of the current market value of a business and includes the value equity as well as the value of other sources of capital.

Enterprise value should reflect the value of all claimants and is typically defined as the sum of the market value of equity, net debt (financial debt less cash and equivalents), preferred stock and any noncontrolling interests. Post ASC 842, many are asking whether operating leases should be included in enterprise value.

While there is no consensus on whether to include operating leases in enterprise value, many analysts at investment banks include operating leases in EV particularly in industries where operating leases are significant such as retail and transportation.

EV is commonly used to calculate valuation multiples such as EV/EBITDA and to derive equity value from enterprise value following valuation of a firm using discounted cash flow analysis.

Consider the EV formula first without and then with operating leases.

$$EV = \text{Net debt} + \text{Preferred Stock} + \text{Market value of Equity} + \text{Noncontrolling Interests}$$

or

$$EV = \text{Operating Leases} + \text{Net debt} + \text{Preferred Stock} + \text{Market value of Equity} + \text{Noncontrolling Interests}$$

The different formulations of enterprise value can be confusing but are neither new nor peculiar to operating leases. For years there have been different calculations of EV. Some include only the core operations of the business and exclude noncore assets and investments. Other calculations include all investments and non-core assets. Some distinguish core enterprise value from total enterprise value but these terms are not consistently used. Others debate including unfunded pension liabilities. It depends in part on why you are doing the analysis. The most important thing is to know what you are valuing, to communicate the results clearly and to be consistent. This will be very important as we turn to EV valuation multiples and valuation using the discounted cash flow technique (the next two sections).

An interesting wrinkle here is the term of the lease. As we saw in the earlier example, if a firm uses shorter term operating leases to acquire assets, it may report similar profitability but will have lower liabilities and therefore lower enterprise value than similar firms.

Calculate EBIT, EBITDA and EBITDAR Consistently

Earnings before interest and taxes (EBIT) and Earnings before interest, taxes, depreciation and amortization (EBITDA) are so called non-GAAP measures because although they are widely used by financial analysts, investors and other finance professionals the measures are not defined by the accounting authorities. While there is some judgment, EBIT is generally viewed as operating profit restated to include only recurring operating revenues and expenses. One time expenses related to restructuring or litigation, for example, would be excluded in the EBIT and EBITDA calculations. EBIT and EBITDA are useful for comparing trends overtime at a given company or to benchmark companies to assess relative performance.

When comparing firms that utilizes operating leases with firms that use finance leases to obtain assets, EBIT and EBITDA no longer provide consistent comparisons as demonstrated in the example above. That is because the full operating lease expense appears in operating expenses subtracted to get to EBIT while only the depreciation portion of a finance lease is subtracted to get to EBIT. The other part of the finance lease expense is financial and appears in interest expense. EBITDA is also ineffective since here we deduct the entire operating lease expense but none of the expense related to the finance lease. Therefore in order to have a metric that allows us to compare firms using different mixes of operating and finance leases we need to add back to EBITDA the rent expense on operating leases so that we're comparing "apples to apples". Since there are no operating leases under IFRS reporting, when comparing US and international firms it's important to use a measure of EBITDA that adds back lease expense. It's a bit confusing because different names are used for this measure including EBITDAR, where the "R" stands for rent expense, and also just EBITDA which is the term Capital IQ, Bloomberg and FactSet now use.

Ensure the Numerator and Denominator Are Consistent in EV Valuation Multiples

One approach to valuation is to use *relative valuation* techniques, often referred to as comparables analysis or multiples. The basic concept is that similar assets should trade at similar prices. To apply this to firms, we analyze value by looking at the multiple of earnings a firm trades at – somewhat like price per square foot in real estate, price per carat with gems or price per ounce of cereal. Similar firms should trade at similar multiples of earnings while firms with stronger growth and margin prospects may trade at higher multiples.

Valuation multiples commonly used in practice include:

- $P/E = \text{share price divided by earnings per share}$
- $EV/EBIT = \text{enterprise value divided by earnings before interest and taxes}$
- $EV/EBITDA = \text{enterprise value divided by earnings before interest, taxes, depreciation and amortization}$
- $EV/EBITDAR = \text{enterprise value divided by earnings before interest, taxes, depreciation, amortization and rent expense associated with leases}$

We have looked at several potential measures of enterprise value and several measures of recurring operating profit. It is essential to calculate the numerator and denominator consistently. The numerator is measure of value, the denominator is a value driver and reflects the earnings available to the providers of capital. Common equity holders have a claim on net income so we look at a P/E ratio since share price is driven by earnings per share. Since both equity owners and creditors have a claim on EBIT and EBITDA, the corresponding value driver must include earnings available to all providers of capital such as EBIT or EBITDA.

So how should operating leases be considered when calculating multiples? Either:

INCLUDE operating leases in enterprise value and use EBITDAR in the denominator

or,

EXCLUDE operating leases in enterprise value and use EBITDA in the denominator

The idea is if the claimants in EV exclude those with operating leases then the impact of the lease must be captured by using earnings after deducting operating lease expense since these are the earnings they have a claim on. Thus we must match “apples to apples”. When calculating multiples across firms with varying use of financial and operating leases, EV including operating leases divided by EBITDAR will typically provide a more comparable multiple.

Continuing with our example from above, we now include information related to enterprise value and calculate valuation multiples. Assume the firm has 10 shares of equity trading at \$9 per share. Using this information and the extending our earlier example we find enterprise value and valuation multiples for the 5 cases. Note that while the P/E and EV including operating leases/EBITDAR multiples are similar across the first 4 asset acquisition cases, the other multiples yield different results. Case 5 has a lower operating lease obligation so the EV and therefore the corresponding multiple is lower.

TABLE 3
LEASE IMPACT ON VALUATION MULTIPLES

	Case 1	Case 2	Case 3	Case 4	Case 5
<i>Assumptions</i>	All Op leases	All FN leases	All Debt	half Op; half FN	Short term Op
<i># shares</i>	10.0	10.0	10.0	10.0	10.0
<i>Share price</i>	9.0	9.0	9.0	9.0	9.0
<i>Market cap</i>	90.0	90.0	90.0	90.0	90.0
<i>Cash</i>	15.0	15.0	15.0	15.0	15.0
<i>Debt</i>	0.0	50.0	50.0	25.0	0.0
<i>Net debt</i>	(15.0)	35.0	35.0	10.0	(15.0)
<i>EPS</i>	\$2.58	\$2.58	\$2.58	\$2.58	\$2.58
<i>P/E</i>	3.5	3.5	3.5	3.5	3.5
<i>EV excluding op leases</i>	75.0	125.0	125.0	100.0	75.0
<i>EV excluding op leases/EBIT</i>	2.2	3.6	3.6	2.9	2.2
<i>EV excluding op leases/EBITDA</i>	2.2	3.1	3.1	2.7	2.2
<i>EV excluding op leases/EBITDAR</i>	1.9	3.1	3.1	2.5	1.9
<i>Operating lease liability</i>	50.0	0.0	0.0	25.0	17.7
<i>EV including op leases</i>	125.0	125.0	125.0	125.0	92.7
<i>EV including op leases/EBIT</i>	3.7	3.6	3.6	3.6	2.8
<i>EV including op leases/EBITDA</i>	3.7	3.1	3.1	3.4	2.8
<i>EV including op leases/EBITDAR</i>	3.1	3.1	3.1	3.1	2.3

Consider How to Incorporate Operating Leases in Discounted Cash Flow Valuation

Discounted cash flow analysis (DCF) is the other technique commonly used to value firms (in addition to multiples or comparables analysis). Conceptually the DCF technique values a firm as the present value of expected future free cash flows where the firm’s weighted average cost of capital is used as the discount rate. Historically the impact of operating leases was captured by including the operating lease expense as an expense to get to free cash flow. Once the enterprise value is determined, the value of the equity can be found by subtracting the value accruing to other claimants. Conceptually, the operating lease reduces equity value. This can be captured either by reducing the forecasted cash flows by the operating lease expense or by considering the lease obligation to represent a claim like a finance lease.

Alternative 1: Operating Lease Expenses Are Included in FCF

$$\begin{aligned} \text{Free cash flow} &= \text{EBIT} \times (1 - \text{tax rate}) \\ &\text{Plus Depreciation on PP\&E} \\ &\text{Plus Amortization} \\ &\text{Less New Capital expenditures} \\ &\text{Less investment in operating working capital} \end{aligned}$$

Discount projected free cash flows at the weighted average cost of capital to find enterprise value. Then subtract other claims on enterprise value to find the implied equity value.

$$\text{Equity} = \text{Enterprise value} - \text{Net debt} - \text{Preferred stock} - \text{Noncontrolling interests}$$

Note that EBIT is stated after accounting for the full operating lease expense and the depreciation portion of the finance lease expense to take into account the tax impact of depreciation. Depreciation on assets is then added back since it was a non cash expense and any new capital expenditures are subtracted.

When determining equity value from enterprise value, there is no need to subtract the value of operating leases since free cash flow is stated after operating lease expense.

Alternative 2: Adjust FCF to Treat Operating Leases as Finance Leases

Or, the DCF technique could be adjusted to treat operating leases like finance leases in the calculation of free cash flow to the firm and then account for operating leases like finance leases in the EV to equity adjustments. In this approach only the depreciation portion of the operating lease is included as an expense when calculating EBIT. As with finance leases, the interest portion is excluded. Any new investment in right of use assets must be deducted in deriving free cash flow as with capital expenditures related to finance leases.

$$\begin{aligned} \text{Free cash flow} &= \text{EBIT stated after depreciation of both finance and operating lease assets} \times (1 - \\ &\text{tax rate}) \\ &\text{Plus Depreciation on both finance and operating lease assets} \\ &\text{Plus Amortization} \\ &\text{Less New Capital expenditures} \\ &\text{Less New investments in right of use assets} \\ &\text{Less investment in operating working capital} \end{aligned}$$

Discount projected free cash flow at the weighted average cost of capital to find enterprise value. Then subtract other claims on enterprise value to find the implied equity value.

$$\text{Equity} = \text{Enterprise value} - \text{Net debt} - \text{Operating lease obligations} - \text{Preferred stock} - \text{Noncontrolling interests}$$

I do not recommend this second approach because it quickly becomes complex. First, the free cash flow calculation requires deducting the depreciation portion of both operating and finance leases. This is not an issue for finance leases but the operating lease expense breakout between depreciation and interest may not be provided in the notes and would therefore need to be estimated. JetBlue does provide this breakout – See Appendix 1 Figure 2. Second, free cash flow needs to be adjusted for the expected increase in right of use assets related to operating leases (analogous to capital expenditures) but there is very little information available to forecast this expenditure since the accounting is new. Third, if operating leases are treated as debt they must be included in the capital structure and in the calculation of the firm's weighted average cost of capital (WACC).

The first approach is more straightforward and also has the benefit of using a known value – the lease expense. In the notes to the financial statements, firms provide detailed information on historic and future lease commitments. The second approach includes more uncertainty and more opportunities for error.

WHAT ARE THE FINANCIAL DATA PROVIDERS REPORTING?

Prior to the adoptions of ASC 842 and IFRS 16 most providers followed the accounting treatment of operating and finance leases but included additional information related to operating leases in some ratios and metrics. Following the new standards, Bloomberg, Capital IQ and FactSet have all made adjustments to how data is reported.

The treatment as of early 2021 follows. Generally speaking, Bloomberg, Capital IQ and FactSet are now treating operating leases as finance leases in an attempt to report consistently across firms despite the type of lease used or the accounting standard adopted. As Capital IQ puts it, “Capital IQ fundamentals aim to be accounting standard agnostic”.

- The operating lease obligation is included with debt and the asset appears in PP&E.
- EBIT calculations have not been adjusted.
- All provide a measure of EBITDA stated after adding back the lease expense for both operating and finance leases. It is called EBITDA at these providers though many others continue to use the term EBITDAR.
- Enterprise value includes operating lease obligations.
- Supplemental information breaking out the interest and depreciation components of operating leases is often provided.
- Each provider has developed new metrics to assist users and provide additional information.

At Bloomberg, EBITDAR is also reported and includes the impact of low value or short term operating leases. Under both US GAAP and IFRS very low value or very short term leases need not be capitalized. Bloomberg has added codes to assist users in identifying lease related information on each of the financial statements. EV includes operating leases but Bloomberg has added a metric “Enterprise value excluding operating leases”.

Capital IQ has added 17 additional supplemental data items related to the change. The firm has also provided detailed information on how measures like EV and EBITDA have been adjusted to provide consistency across standards and for use in valuation multiples. As shown below, Cap IQ reports the “lease adjustment for EBITDA”.

At FactSet the default for enterprise value is to include operating leases. However, there is an option for clients to exclude the operating lease value from the total EV calculation. Like Bloomberg and Capital IQ, EBITDA adds back operating lease expense. Since many clients requested to have a way to exclude the leasing effects there are now separate codes for data selected that allow these items to be excluded.

Example: Capital IQ Information on JetBlue Airways

Below we show select information for Jet Blue as provided by Capital IQ. Information is shown as of mid-February 2020. This date was selected to capture the financials through 2019 to allow for inclusion of the lease related changes while avoiding most of the Covid impact which wreaked havoc on earnings and valuation multiples in 2020.

Enterprise Value Calculation

The picture below shows the inclusion of operating and finance leases (which Cap IQ calls capital leases) in the enterprise value calculation. Note that enterprise value of \$7,834.9 million includes total debt of \$3,152 million which is shown to include both operating and finance liabilities (here I showed the detail for long term leases). The value of \$7,951 million is the total capital based on book values and includes total debt rather than net debt.

**FIGURE 1
JETBLUE ENTERPRISE VALUE**

	Jun-30-2019	Sep-30-2019	Dec-31-2019	Mar-31-2020	Jun-30-2020	Sep-30-2020
Balance Sheet as of:	Jun-30-2019	Sep-30-2019	Dec-31-2019	Mar-31-2020	Jun-30-2020	Sep-30-2020
Pricing as of*	Jul-26-2019	Oct-28-2019	Feb-18-2020	May-08-2020	Jul-31-2020	Nov-09-2020
Currency	USD					
Capitalization Detail						
Share Price	\$ 19.38	\$ 19.23	\$ 21.30			
Shares Out.	296.3	288.7	282.2			
Market Capitalization	5,741.7	5,551.6	6,010.9			
+ Cash & Short Term Investments	909.0	994.0	1,328.0			
+ Total Debt	2,378.0	2,508.0	3,152.0			
+ Pref. Equity	-	-	-			
+ Total Minority Interest	-	-	-			
= Total Enterprise Value (TEV)	7,210.7	7,065.6	7,834.9			
Book Value of Common Equity	4,697.0	4,764.0	4,799.0			
+ Pref. Equity	-	-	-			
+ Total Minority Interest	-	-	-			
+ Total Debt	2,378.0	2,508.0	3,152.0	4,017.0	5,556.0	
= Total Capital	7,075.0	7,272.0	7,951.0	8,383.0	9,650.0	

Air France reports under IFRS so has only finance leases. The total debt and breakout are shown below. Note that leases are simply referred to as lease debt.

**FIGURE 2
AIR FRANCE ENTERPRISE**

Last Close TEV		EBITDA		Net Debt	
Last Close TEV	11,449.65	Last Close EBITDA	3,867.00	Net Debt	6,840.00
EBITDA (Incl. Equity Inc. from Affiliates) (as of Sep-30-2019)	3,867.00	Last Close Market Cap (as of Feb-18-2020)	4,193.65	+ Current Portion of Long Term Debt	1,027.00
= Total	2.96	+ Net Debt	6,840.00	+ Long Term Debt	6,006.00
		+ Minority Interest	13.00	+ Long-Term Leases	3,400.00
		+ Total Preferred Equity	403.00	= Total Cash And Short Term Investments	4,608.00
		= Last Close TEV	11,449.65	= Net Debt	6,840.00

Multiples Calculation

Below is a screenshot displaying trading multiples for JetBlue and some peers. Next, a detailed look at the calculations for JetBlue and Air France is provided. JetBlue reports under US GAAP and Air France reports under IFRS. Capital IQ has attempted to facilitate comparisons across the standards.

**FIGURE 3
JETBLUE MULTIPLES**

Company Name	TEV/Total Revenues LTM - Latest	TEV/EBITDA LTM - Latest	TEV/EBIT LTM - Latest	P/Diluted EPS Before Extra LTM - Latest
Southwest Airlines Co. (NYSE:LUV)	1.3x	5.3x	10.1x	13.5x
Hawaiian Holdings, Inc. (NasdaqGS:HA)	0.7x	2.8x	6.3x	5.7x
American Airlines Group Inc. (NasdaqGS:AAL)	0.9x	4.5x	11.4x	7.6x
Alaska Air Group, Inc. (NYSE:ALK)	1.1x	4.5x	9.1x	10.6x
Delta Air Lines, Inc. (NYSE:DAL)	1.1x	4.4x	7.9x	8.0x
SkyWest, Inc. (NasdaqGS:SKYW)	1.9x	5.5x	10.7x	8.7x
United Airlines Holdings, Inc. (NasdaqGS:UAL)	0.8x	3.7x	7.9x	6.9x
Allegiant Travel Company (NasdaqGS:ALGT)	2.0x	7.4x	10.0x	11.6x
Spirit Airlines, Inc. (NYSE:SAVE)	1.4x	5.3x	10.4x	8.7x
easyJet plc (LSE:EZJ)	1.0x	6.6x	13.4x	17.0x
Air France-KLM SA (ENXTPA:AF)	0.4x	3.0x	11.2x	NM
JetBlue Airways Corporation (NasdaqGS:JBLU)	1.0x	4.2x	9.5x	11.2x

Here is a drill down of EV/EBITDA for JetBlue and Air France. You can see that lease expense has been added to get to EBITDA.

At 2/18/2020 Jet Blue's EV/EBITDA, with values in millions of dollars, is found as:

$$\text{EV of } 7,834.9 / \text{EBITDA of } 1,856 = \text{EV/EBITDA of } 4.22$$

**FIGURE 4
JBLU EV/EBITDA**

Last Close TEV/EBITDA	
JetBlue Airways Corporation	
Standardized Data	
Feb-18-2020 - US Dollar (mm)	
Last Close TEV	7,834.90
EBITDA (Incl. Equity Inc. from Affiliates) (as of Dec-31-2019)	1,856.00
= Total	4.22

EBITDA (Incl. Equity Inc. from Affiliates, Lease Adjusted)	
Standardized Data	
Dec-31-2019 - US Dollar (mm)	
Total Revenues	8,094.00
- Cost Of Revenues	5,359.00
- Selling General & Admin Expenses	290.00
- Depreciation & Amortization, Total	525.00
- Other Operating Expenses	1,106.00
+ Income (Loss) On Equity Invest.	15.00
+ D&A for EBITDA	473.00
+ Lease Adjustment for EBITDA	554.00
EBITDA (Incl. Equity Inc. from Affiliates, Lease Adjusted)	1,856.00

At 2/18/2020 Air France's EV/EBITDA, with values in millions of euros, is found as:

EV of 11,449.65 / EBITDA of 3,867 = EV/EBITDA 2.96

FIGURE 5
AIR FRANCE EV/EBITDA

Last Close TEV/EBITDA		Air France-KLM SA																									
Standardized Data																											
Feb-18-2020 - Euro (mm)																											
Last Close TEV	11,449.65	EBITDA (Incl. Equity Inc. from Affiliates) (as of Sep-30-2019)	3,867.00																								
= Total		2.96																									
<table border="1"> <thead> <tr> <th colspan="2">Standardized Data</th> <th colspan="2">Sep-30-2019 - Euro (mm)</th> </tr> </thead> <tbody> <tr> <td>Total Revenues</td> <td>27,270.00</td> <td>Cost Of Revenues</td> <td>21,299.00</td> </tr> <tr> <td>Selling General & Admin Expenses</td> <td>1,041.00</td> <td>Depreciation & Amortization, Total</td> <td>2,957.00</td> </tr> <tr> <td>Other Operating Expenses</td> <td>915.00</td> <td>Income (Loss) On Equity Invest.</td> <td>(34.00)</td> </tr> <tr> <td>D&A for EBITDA</td> <td>1,566.00</td> <td>Lease Adjustment for EBITDA</td> <td>1,277.00</td> </tr> <tr> <td colspan="2">EBITDA (Incl. Equity Inc. from Affiliates, Lease Adjusted)</td> <td colspan="2">3,867.00</td> </tr> </tbody> </table>				Standardized Data		Sep-30-2019 - Euro (mm)		Total Revenues	27,270.00	Cost Of Revenues	21,299.00	Selling General & Admin Expenses	1,041.00	Depreciation & Amortization, Total	2,957.00	Other Operating Expenses	915.00	Income (Loss) On Equity Invest.	(34.00)	D&A for EBITDA	1,566.00	Lease Adjustment for EBITDA	1,277.00	EBITDA (Incl. Equity Inc. from Affiliates, Lease Adjusted)		3,867.00	
Standardized Data		Sep-30-2019 - Euro (mm)																									
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EBITDA (Incl. Equity Inc. from Affiliates, Lease Adjusted)		3,867.00																									

KEY TAKE-AWAYS

Financial statements now reflect the changes to accounting for leases under both the IFRS and US GAAP accounting standards. The new rules do improve comparability of some metrics but both the approach used to acquire assets and the accounting standard adopted can impact measures like EBIT, operating cash flows and debt to equity ratios.

Those involved in financial analysis and valuation should take care in calculating enterprise value, EBIT and EBITDA, and valuation multiples. Of equal importance is the clear communication of how you define and calculate measures like EBITDA and enterprise value since there is currently no clear consensus on whether and how to include operating leases in these metrics. For example, what is called EBITDA by one analyst may be referred to as EBITDAR by others. Enterprise value calculations may include or exclude operating lease obligations. When accessing data from providers like Bloomberg, Capital IQ and FactSet, ensure you understand what is being reported since these providers have adjusted the information on enterprise value, EBITDA, and other metrics in an attempt to enhance consistency across firms.

As I draft this in early 2021, I'm not sure whether Sir David Tweedie has been able to fly since implementation of IFRS 16 and ASC 842 since Covid related travel bans were initiated not long after, but if he did fly, he most likely got his wish and did indeed fly on an aircraft that actually exists on a balance sheet somewhere.

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APPENDIX: SELECT INFORMATION FROM JETBLUE AIRWAYS 2019 10K

FIGURE 1
JBLU BALANCE SHEET

JETBLUE AIRWAYS CORPORATION
CONSOLIDATED BALANCE SHEETS
(in millions, except per share data)

	December 31,	
	2019	2018
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 959	\$ 474
Investment securities	369	413
Receivables, less allowance (2019 - \$1; 2018-\$1)	231	211
Inventories, less allowance (2019 - \$22; 2018-\$18)	81	78
Prepaid expenses and other	146	212
Total current assets	1,786	1,388
PROPERTY AND EQUIPMENT		
Flight equipment	10,332	9,525
Predelivery deposits for flight equipment	433	293
Total flight equipment and predelivery deposits, gross	10,765	9,818
Less accumulated depreciation	2,768	2,448
Total flight equipment and predelivery deposits, net	7,997	7,370
Other property and equipment	1,145	1,074
Less accumulated depreciation	528	461
Total other property and equipment, net	617	613
Total property and equipment, net	8,614	7,983
OPERATING LEASE ASSETS	912	1,056
OTHER ASSETS		
Investment securities	3	3
Restricted cash	59	59
Other	544	470
Total other assets	606	532
TOTAL ASSETS	\$ 11,918	\$ 10,959

See accompanying notes to consolidated financial statements.

JETBLUE AIRWAYS CORPORATION
CONSOLIDATED BALANCE SHEETS
(in millions, except per share data)

	December 31,	
	2019	2018
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable	\$ 401	\$ 437
Air traffic liability	1,119	1,035
Accrued salaries, wages and benefits	376	313
Other accrued liabilities	295	298
Current operating lease liabilities	128	133
Current maturities of long-term debt and finance lease obligations	344	309
Total current liabilities	2,663	2,525
LONG-TERM DEBT AND FINANCE LEASE OBLIGATIONS	1,990	1,361
LONG-TERM OPERATING LEASE LIABILITIES	690	798
DEFERRED TAXES AND OTHER LIABILITIES		
Deferred income taxes	1,251	1,112
Air traffic liability - loyalty non-current	481	447
Other	44	31
Total deferred taxes and other liabilities	1,776	1,590
COMMITMENTS AND CONTINGENCIES (Notes 11 & 12)		
STOCKHOLDERS' EQUITY		
Preferred stock, \$0.01 par value; 25 shares authorized, none issued	—	—
Common stock, \$0.01 par value; 900 shares authorized, 427 and 422 shares issued and 282 and 306 shares outstanding at 2019 and 2018, respectively	4	4
Treasury stock, at cost; 145 and 116 shares at 2019 and 2018, respectively	(1,782)	(1,272)
Additional paid-in capital	2,253	2,203
Retained earnings	4,322	3,753
Accumulated other comprehensive income (loss)	2	(3)
Total stockholders' equity	4,799	4,685
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 11,918	\$ 10,959

FIGURE 2
JBLU NOTE ON LEASES

JETBLUE AIRWAYS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Leases with a term of 12 months or less are not recorded on the balance sheet. Our lease agreements do not contain any residual value guarantees. For facility leases, we account for the lease and non-lease components as a single lease component.

The table below presents the lease-related assets and liabilities recorded on our consolidated balance sheets as of December 31, 2019 and 2018 (in millions):

	Classification on Balance Sheet	As of December 31,	
		2019	2018
Assets			
Operating lease assets	Operating lease assets	\$ 912	\$ 1,056
Finance lease assets	Property and equipment, net	171	181
Total lease assets		\$ 1,083	\$ 1,237
Liabilities			
Current:			
Operating lease liabilities	Current operating lease liabilities	\$ 128	\$ 133
Finance lease liabilities	Current maturities of long-term debt and finance lease obligations	31	18
Long-term:			
Operating lease liabilities	Long-term operating lease liabilities	690	798
Finance lease liabilities	Long-term debt and finance lease obligations	58	89
Total lease liabilities		\$ 907	\$ 1,038

Lease Costs

The table below presents certain information related to our lease costs during the years ended December 31, 2019, 2018, and 2017 (in millions):

	2019	2018	2017
Operating lease cost	\$ 180	\$ 185	\$ 180
Short-term lease cost	2	2	2
Finance lease cost:			
Amortization of assets	9	10	10
Interest on lease liabilities	3	3	4
Variable lease cost	391	379	358
Sublease income	(19)	(15)	(14)
Total net lease cost	\$ 566	\$ 564	\$ 540

Other Information

The table below presents supplemental cash flow information related to leases during the years ended December 31, 2019, 2018, and 2017 (in millions):

	2019	2018	2017
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash flows for operating leases	\$ 136	\$ 151	\$ 150
Operating cash flows for finance leases	5	5	6
Financing cash flows for finance leases	17	17	16

Lease Commitments

The table below presents scheduled future minimum lease payments for operating and finance leases recorded on our consolidated balance sheets, as of December 31, 2019 (in millions):

	As of December 31, 2019	
	Operating Leases	Finance Leases
2020	\$ 128	\$ 35
2021	122	39
2022	114	9
2023	104	9
2024	95	5
Thereafter	565	—
Total minimum lease payments	1,128	97
Less: amount of lease payment representing interest	(310)	(8)
Present value of future minimum lease payment	818	89
Less: current obligations under leases	(128)	(31)
Long-term lease obligations	\$ 690	\$ 58

We did not have any lease commitments that have not yet commenced as of December 31, 2019.

	As of December 31,	
	2019	2018
Weighted average remaining lease term (in years)		
Operating leases	11	11
Finance leases	3	4
Weighted average discount rate		
Operating leases	5.95%	5.95%
Finance leases	4.75%	4.73%