Cash to Debt Ratio: Unscrubbed Data Creates Misleading Credit Ratings

To demonstrate the difference our proprietary Adjusted Fundamental data makes, we continue our series of reports that show how our Credit Ratings are more reliable than legacy firms' ratings. This report explains how our "Adjusted" Cash to Debt ratio is better than the "Traditional" ratio because the Traditional ratio is based on unscrubbed financial data. Cash to Debt is one of the 5 ratios that drives our Credit Ratings. Get explanations and comparisons for the other four metrics here.

No Bias, More Coverage, and Better Analytics: A New Paradigm for Credit Ratings

Though legacy providers, e.g. Moody's, S&P, and Fitch, have dominated the credit ratings industry for some time, our Credit Ratings offer these advantages:

- more coverage: ~2,700 companies vs. ~1,500 for S&P
- more frequent updates: we update all ~2,700 of our credit ratings quarterly while S&P updates ratings for ~400 companies per year
- free of conflicts of interest that continue to taint legacy ratings.

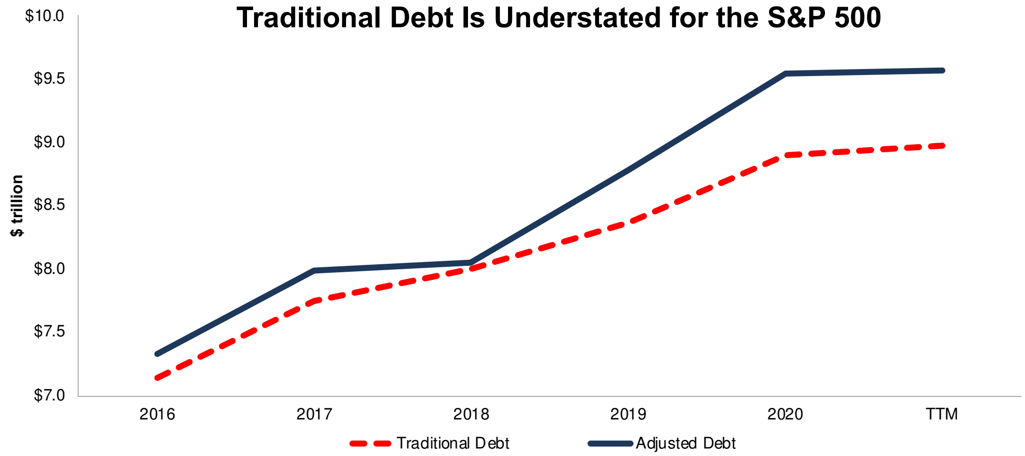
Most importantly, superior fundamental data drives material differences in our Credit Ratings and research compared to legacy firms' research and ratings. This report will show how Cash to Debt ratings for 5% of S&P 500 companies are misleading because they rely on unscrubbed data.

We also detail the differences that better data makes at the aggregate[1], i.e. S&P 500[2], level and the individual company level (see Appendix) so readers can easily quantify the benefits of our superior data.

Unscrubbed Debt Is Understated by 7% for the S&P 500

We use the same Cash value as the numerator for both the Traditional and Adjusted Cash to Debt ratios. We use Debt as the denominator for the Cash to Debt ratio. Figure 1 shows the difference between Traditional Debt and our Adjusted Debt since 2016. Over the trailing twelve months (TTM), Traditional Debt understates our Adjusted Debt by $599 billion, or 7% of Traditional Debt.

Figure 1: Traditional Vs. Adjusted Debt for S&P 500



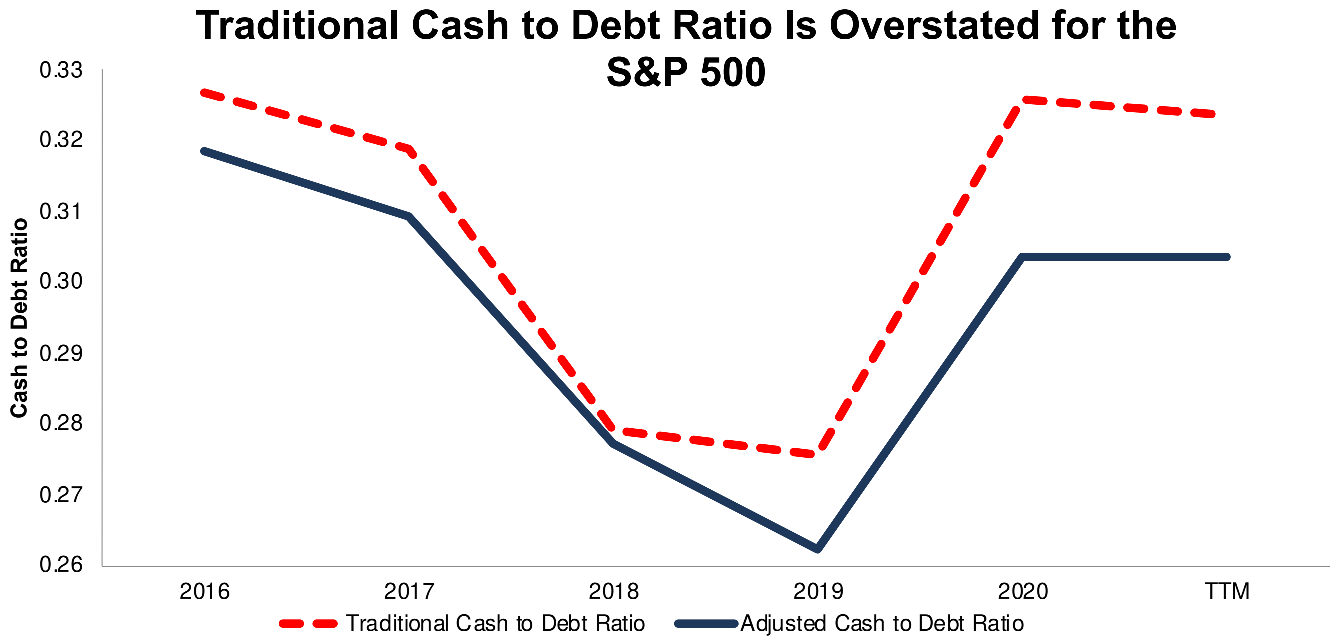
Sources: New Constructs, LLC and company filings.

[1] We calculate the S&P 500 Traditional and Adjusted Debt by aggregating the results for all current members of the S&P 500.
[2] In this analysis, we use the 494 companies for which we have data back to 2016 and are currently in the S&P 500.

Traditional Cash to Debt Ratio Is Overstated by 6% at the Aggregate Level

Since we use the same Cash value as the numerator for both our Traditional and Adjusted Interest Coverage ratio, understated Traditional Debt drives the difference between the Traditional and Adjusted Cash to Debt ratios. Figure 2 shows that the Traditional Cash to Debt ratio has been overstated since 2016. Over the TTM, the Traditional Cash to Debt ratio of 0.32 is 6% overstated compared to the Adjusted Cash to Debt ratio of 0.30.

Figure 2: Traditional Vs. Adjusted Cash to Debt Ratio for S&P 500



Sources: New Constructs, LLC and company filings.

Even Bigger Differences Emerge at the Individual Company Level

When analyzing individual companies, we see very large differences in Traditional and Adjusted Debt and Traditional and Adjusted Cash to Debt ratios. For example, even though there is a 7% difference between Traditional and Adjusted Debt at the aggregate level, at the company level, we find Traditional Debt understated by as much as 22% and overstated by as much as 53%. 30% percent of the firms in the S&P 500 have Traditional Debt that is over or understated by 10% or more.

Figure 3 shows the number of S&P 500 companies with understated and overstated Cash to Debt ratios. Understated ratios have negative Cash to Debt ratio distortion[3], and overstated ratios have positive distortion.

About 79% of S&P 500 firms' Traditional Cash to Debt ratios are overstated, and 19% are understated.

Figure 3: Number of S&P Companies with Under/Overstated Cash to Debt ratios: TTM

	# of Companies	Average Cash to Debt Ratio Distortion
Understated Ratio	97 companies	(2%)
Overstated Ratio	395 companies	8%
No Difference	8 companies	n/a

Sources: New Constructs, LLC and company filings.

Figure 4 lists ten S&P 500 companies with the most understated and overstated Cash to Debt ratios, by Cash to Debt ratio distortion, over the TTM.

[3]Cash to Debt ratio Distortion equals (Traditional Cash to Debt ratio - Adjusted Cash to Debt ratio) / absolute value of Traditional Cash to Debt ratio.

Note: we detail the data and disclosures that drive the differences in Traditional versus Adjusted Cash to Debt for American Tower (AMT) and Etsy (ETSY) in the Appendix to this report.

Figure 4: Companies with Under/Overstated Cash to Debt ratios: TTM

Ticker	Name	Traditional Cash to Debt Ratio	Adjusted Cash to Debt Ratio	Cash to Debt Ratio Distortion
Most Understated				
EXPE	Expedia Group Inc.	0.51	0.63	(22%)
AMT	American Tower Corp	0.05	0.06	(15%)
NCLH	Norwegian Cruise Line Holdings	0.28	0.32	(13%)
AMD	Advanced Micro Devices	5.26	5.90	(12%)
SNPS	Synopsys Inc	2.11	2.26	(7%)
Most Overstated				
ENPH	Enphase Energy Inc	1.46	0.69	53%
ETSY	Etsy Inc	1.31	0.70	46%
L	Loews Corporation	0.07	0.04	43%
MPWR	Monolithic Power Systems	119.26	81.75	31%
ADP	Automatic Data Processing	0.77	0.55	29%

Sources: New Constructs, LLC and company filings.

Ratings Based on Traditional Ratios Are Misleading

Not surprisingly, differences between Traditional and Adjusted ratios drive differences in the Credit Ratings we derive for Cash to Debt.

Figure 5 shows how our Credit Ratings align with legacy firms' ratings systems and the percentage of Traditional Cash to Debt ratings that are different from ratings based on Adjusted ratios for companies in the S&P 500. Overall, 5% of the Traditional Cash to Debt ratings are different from our Adjusted Cash to Debt ratings because they rely on unscrubbed data.

As we explain in our [Credit Ratings methodology](), we set the Cash to Debt ratio thresholds so that the distribution of our ratings is comparable to the distribution of ratings for legacy firms. We use the Traditional version of the Cash to Debt ratio to set thresholds so that the difference in our ratings comes from the difference in our data.

Figure 5: S&P 500: Percent of Traditional Cash to Debt Ratings That Are Misleading

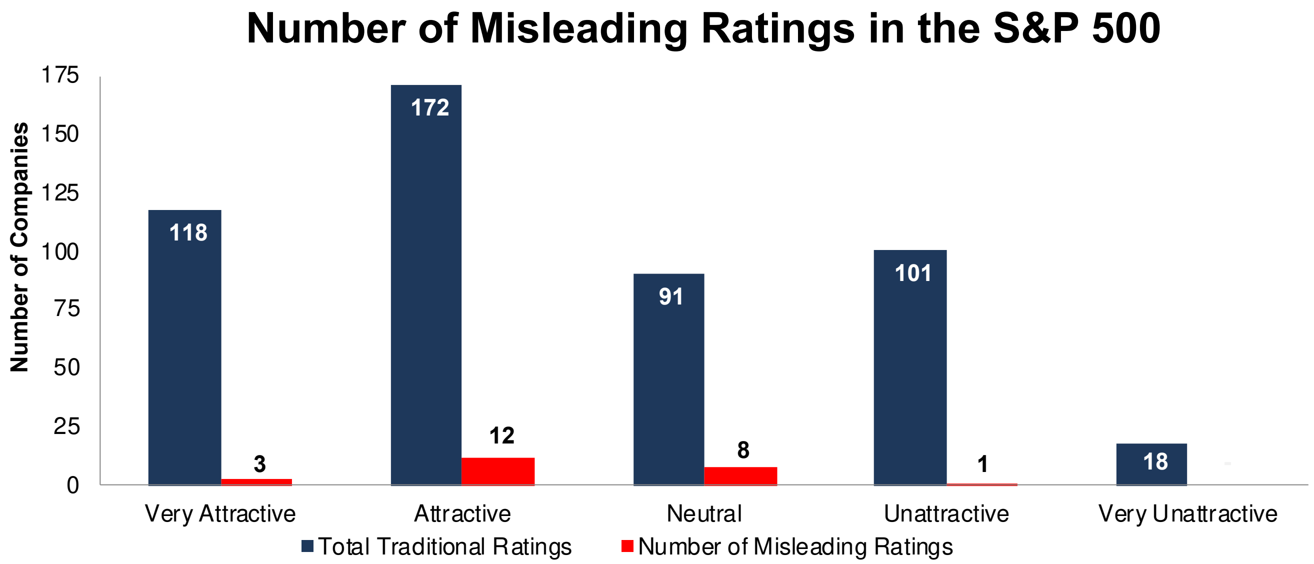
New Constructs Rating	Moody's Rating	S&P Rating	Fitch Rating	Traditional Cash to Debt Ratings That Are Misleading
Very Attractive	Aaa to Aa3	AAA to AA-	AAA to AA-	3%
Attractive	A1 to A3	A+ to A-	A+ to A-	7%
Neutral	Baa1 to Baa3	BBB+ to BBB-	BBB+ to BBB-	9%
Unattractive	Ba1 to B3	BB+ to B-	BB+ to B-	1%
Very Unattractive	Caa1 to C	CCC+ to D	CCC to D	0%
Total				5%

Sources: New Constructs, LLC and company filings.

Figure 6 provides more details on the number of companies whose Traditional Cash to Debt ratings are different from the rating based on Adjusted Cash to Debt ratios.

For example, 8 out of 91 (9%) companies that earn a Neutral Cash to Debt rating based on the Traditional ratio earn a different rating based on the Adjusted ratio.

Figure 6: S&P 500: Number of Misleading Traditional Cash to Debt Ratings



Sources: New Constructs, LLC and company filings.

We dedicate the Appendix of this report to showing readers exactly how our Adjusted values for Debt and Cash to Debt ratios are different and better than the unscrubbed versions.

This article originally published on July 13, 2021.

Disclosure: David Trainer, Kyle Guske II, Alex Sword, and Matt Shuler receive no compensation to write about any specific stock, style, or theme.

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Appendix: Auditing the Differences in Traditional Vs. Adjusted Values

This Appendix will show exactly how our Adjusted values for Debt and Cash to Debt ratios differ from the Traditional versions for American Tower and Etsy.

American Tower: The Difference in Traditional Vs. Adjusted Values

Figure 7 shows the differences between Traditional and Adjusted Debt for American Tower. The difference between American Tower's Traditional Debt and Adjusted Debt is $4.8 billion, or 13% of Traditional Debt.

Figure 7: American Tower: Traditional Vs. Adjusted Cash to Debt Components

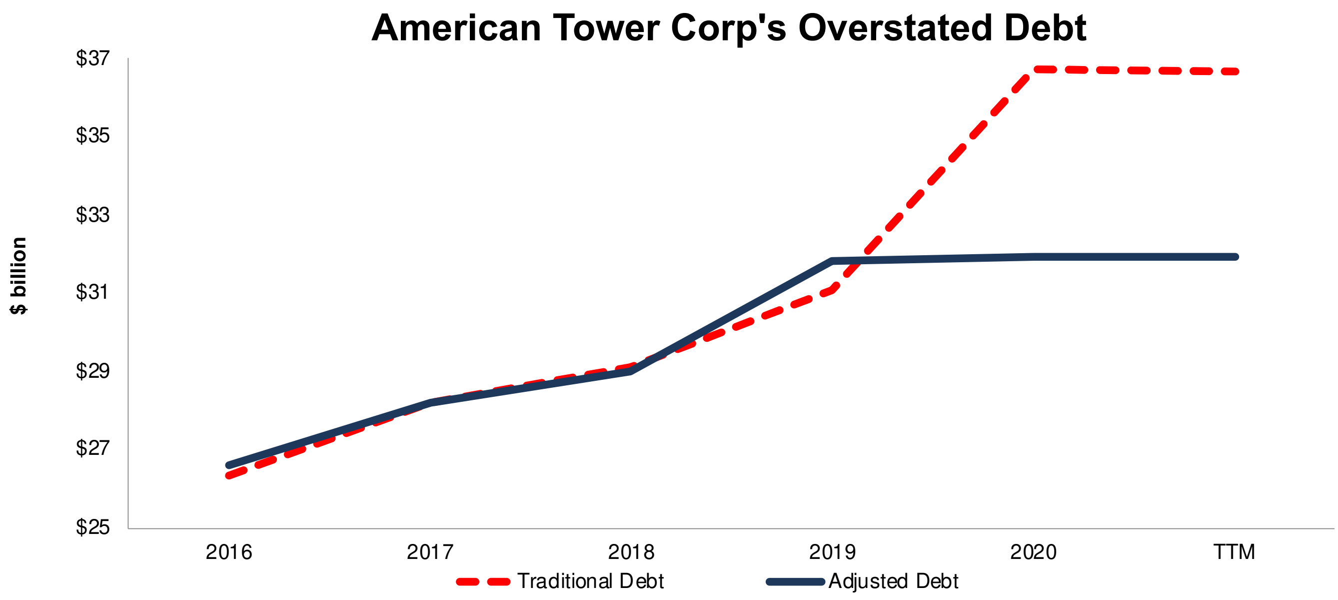
	Debt ($mm)	Cash to Debt Ratio
Traditional	$36,696	0.05
Adjusted	$31,933	0.06
Difference	**$4,763**	(15%)[4]

Sources: New Constructs, LLC and company filings.

Reconciling American Tower's Traditional and Adjusted Debt

American Tower's overstated Traditional Debt drives its understated Cash to Debt ratio. Figure 8 shows the firm's Traditional and Adjusted Debt since 2016. Notice the large divergence between Traditional and Adjusted Debt since 2019.

Figure 8: American Tower: Traditional Vs. Adjusted Debt: 2016-TTM



Sources: New Constructs, LLC and company filings.

The $4.8 billion difference between American Tower's Traditional and Adjusted Debt is driven by:

- $5.2 billion difference between the fair value of debt and the carrying value of debt
- -$424 million difference between NPV of operating leases and Adjusted NPV of operating leases

Figure 9 reconciles American Tower's Traditional and Adjusted Debt and details each of the adjustments listed above.

[4] This number is the Cash to Debt ratio Distortion, which equals (Traditional Cash to Debt ratio - Adjusted Cash to Debt ratio) / absolute value of Traditional Cash to Debt ratio.

Figure 9: American Tower: Adjusted Vs. Traditional Debt Detailed Comparison

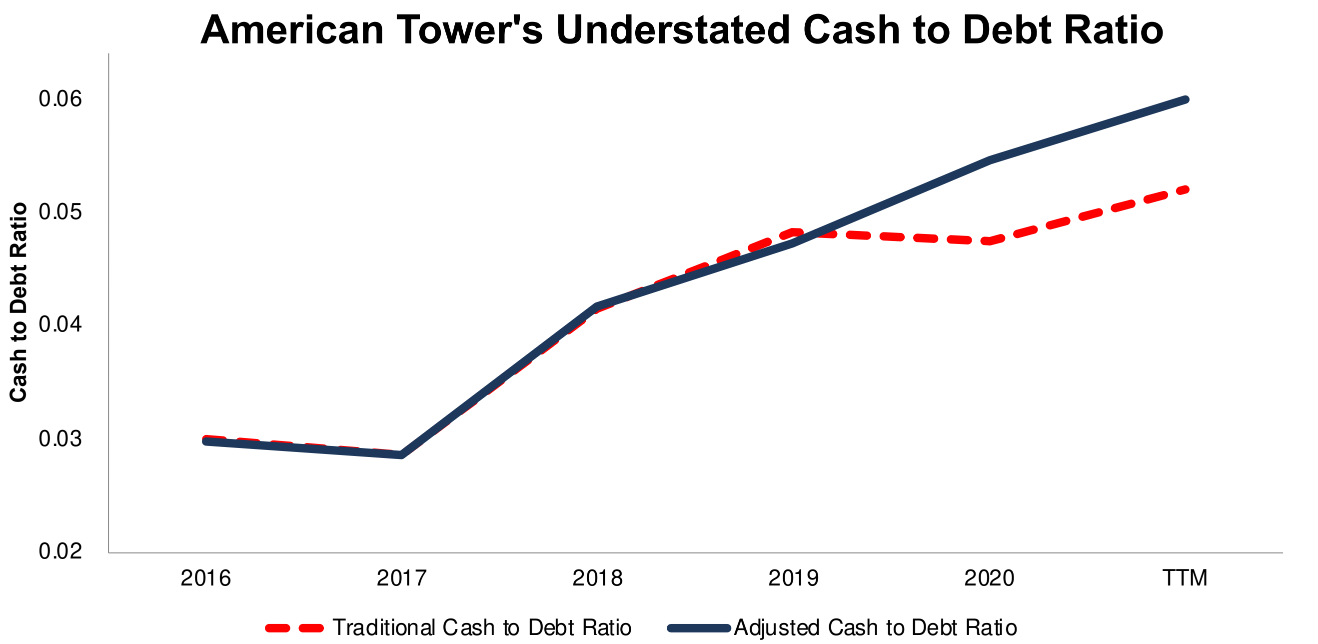
Adjusted Debt (TTM)		Traditional Debt (TTM)		Difference ($mm)
Item	**$ (mm)**	**Item**	**$ (mm)**	
Short-Term Debt	$1,337	Short-Term Debt	$1,337	
+ Non-Current Operating Liabilities	$27,990	+ Non-Current Operating Liabilities	$27,990	
+ Fair Value of Debt - Carrying Value of Debt	($5,187)			
+ Adjusted NPV of Operating Leases[5]	$7,793	+ NPV of Operating Leases[6]	$7,369	
= Adjusted Debt	**$31,933**	**= Traditional Debt**	**$36,696**	**$4,763**

Sources: New Constructs, LLC and company filings.

American Tower's Cash to Debt Ratio Is Understated

With overstated Traditional Debt, American Tower's Cash to Debt ratio is one of the most understated of all companies in the S&P 500. Per Figure 10, American Tower's Cash to Debt ratio has been understated since 2020.

Figure 10: American Tower: Traditional Vs. Adjusted Cash to Debt Ratio: 2016-TTM



Sources: New Constructs, LLC and company filings.

Etsy: The Difference in Traditional Vs. Adjusted Values

Figure 11 shows the differences between Traditional and Adjusted Debt for Etsy. The difference between Etsy's Traditional and Adjusted Debt is -$1.2 billion, or 86% of Traditional Debt.

[5] We use a standardized discount rate across all companies under coverage to calculate the Adjusted NPV of Operating Leases to ensure comparability and remove management discretion in calculating operating lease liabilities. Find more details on how we treat operating leases here.

[6] Traditional NPV of Operating Leases equals the operating lease obligation reported in the firm's 1Q20 10-Q.

Figure 11: Etsy: Traditional Vs. Adjusted Cash to Debt Components

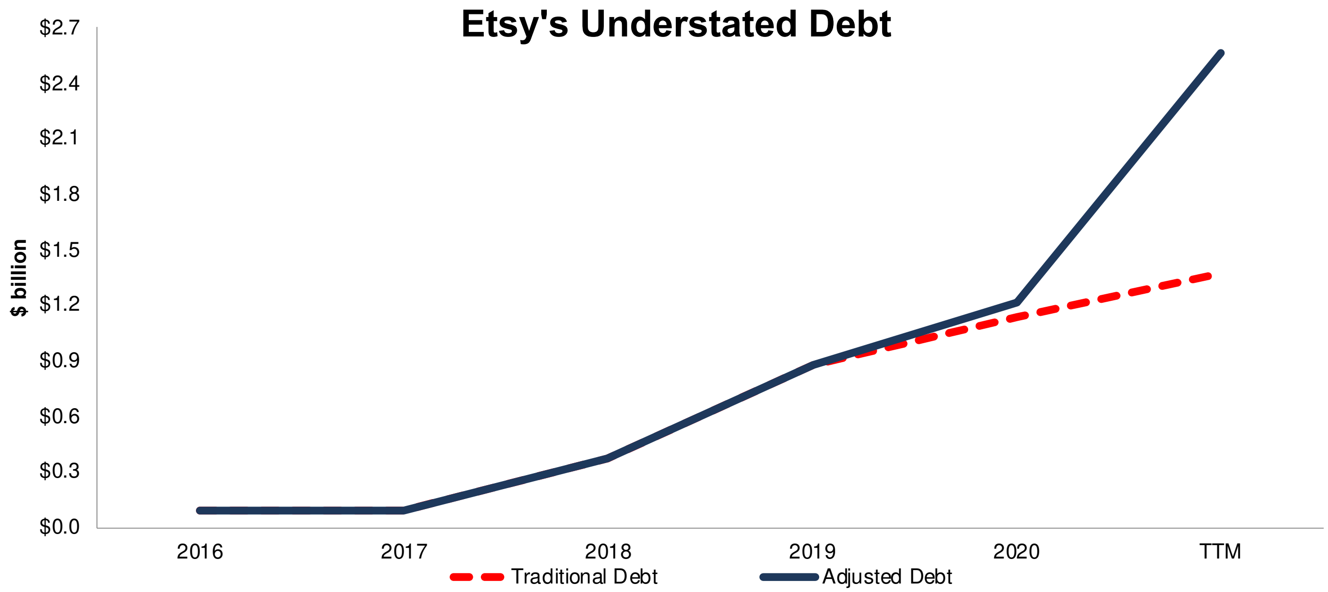
	Debt ($mm)	Cash to Debt Ratio
Traditional	$1,376	1.3
Adjusted	$2,560	0.7
Difference	**($1,184)**	**46%[7]**

Sources: New Constructs, LLC and company filings.

Reconciling Etsy's Traditional and Adjusted Debt

Etsy's understated Debt drives its overstated Cash to Debt ratio. Figure 12 shows the firm's Traditional Debt has grown increasingly understated since 2019.

Figure 12: Etsy: Traditional Vs. Adjusted Debt: 2016-TTM



Sources: New Constructs, LLC and company filings.

The -$1.2 billion difference between Etsy's Traditional and Adjusted Debt is driven by:

- $1.2 billion difference between the fair value of debt and the carrying value of debt
- $1 million difference between NPV of operating leases and Adjusted NPV of operating leases

Figure 13 reconciles Etsy's Traditional and Adjusted Debt and details each of the adjustments listed above.

[7] This number is the Cash to Debt ratio Distortion, which equals (Traditional Cash to Debt ratio - Adjusted Cash to Debt ratio) / absolute value of Traditional Cash to Debt ratio.

Figure 13: Etsy: Adjusted Vs. Traditional Debt Detailed Comparison

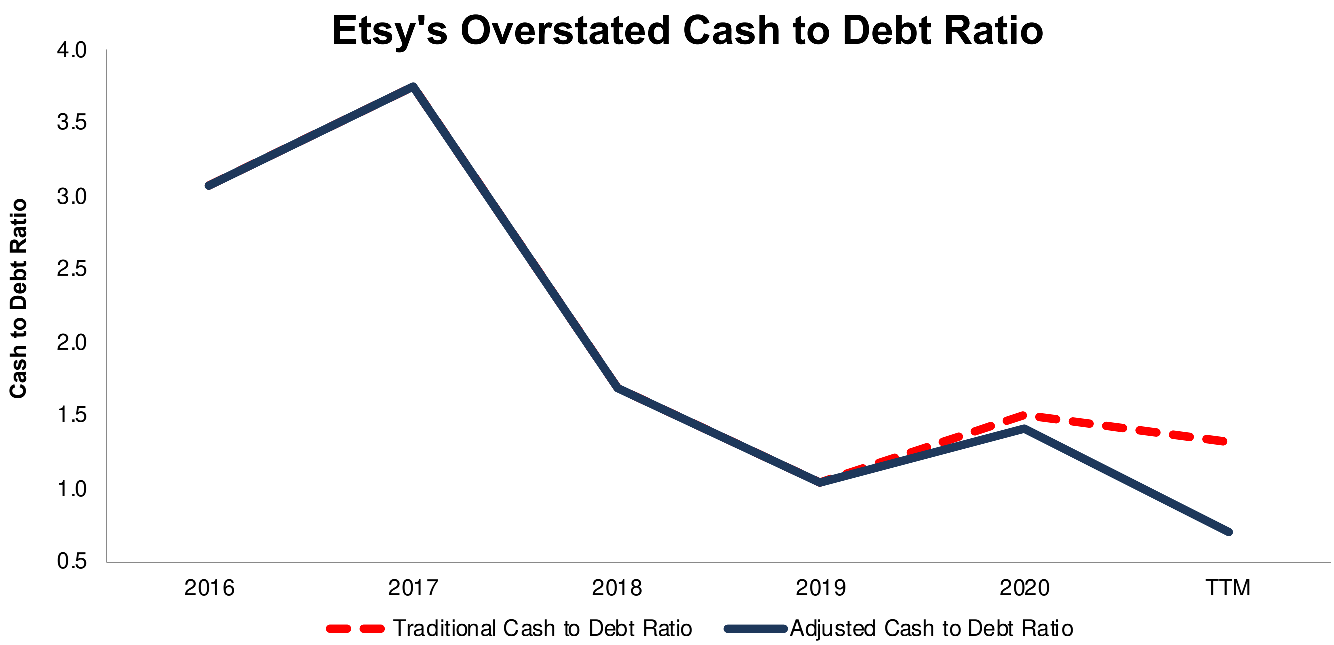
Adjusted Debt (TTM)		Traditional Debt (TTM)		Difference ($mm)
Item	**$ (mm)**	**Item**	**$ (mm)**	
Short-Term Debt	$8.6	Short-Term Debt	$8.6	
+ Non-Current Operating Liabilities	$1,345	+ Non-Current Operating Liabilities	$1,345	
+ Fair Value of Debt - Carrying Value of Debt	$1,185			
+ Adjusted NPV of Operating Leases[8]	$21	+ NPV of Operating Leases[9]	$22	
= Adjusted Debt	**$2,560**	**= Traditional Debt**	**$1,376**	**($1,184)**

Sources: New Constructs, LLC and company filings.

Etsy's Cash to Debt Ratio Is Overstated

With understated Traditional Debt, Etsy's Cash to Debt ratio is one of the most overstated of all companies in the S&P 500. Per Figure 14, Etsy's Cash to Debt ratio has become increasingly overstated since 2019.

Figure 14: Etsy: Traditional Vs. Adjusted Cash to Debt ratio: 2016-TTM



Sources: New Constructs, LLC and company filings.

[8] We use a standardized discount rate across all companies under coverage to calculate the Adjusted NPV of Operating Leases to ensure comparability and remove management discretion in calculating operating lease liabilities. Find more details on how we treat operating leases here.
[9] Traditional NPV of Operating Leases equals the operating lease obligation reported in the firm's 1Q20 10-Q.

It's Official: We Offer the Best Fundamental Data in the World

Many firms claim their research is superior, but none of them can prove it with independent studies from highly-respected institutions as we can. Three different papers from both the public and private sectors show:

1. Legacy fundamental datasets suffer from significant inaccuracies, omissions and biases.
2. Only our "novel database" enables investors to overcome these flaws and apply reliable fundamental data in their research.
3. Our proprietary measures of Core Earnings and Earnings Distortion materially improve stock picking and forecasting of profits.

Best Fundamental Data in the World

Forthcoming in The Journal of Financial Economics, a top peer-reviewed journal, Core Earnings: New Data & Evidence proves our Robo-Analyst technology overcomes material shortcomings in legacy firms' data collection processes to provide superior fundamental data, earnings models, and research. More details.

Key quotes from the paper:

- "[New Constructs'] *Total Adjustments* differs significantly from the items identified and excluded from Compustat's adjusted earnings measures. For example… 50% to 70% of the variation in *Total Adjustments* is not explained by *S&P Global's (SPGI) Adjustments* individually." – pp. 14, 1st para.
- "A final source of differences [between New Constructs' and S&P Global's data] is due to data collection oversights…we identified cases where Compustat did not collect information relating to firms' income that is useful in assessing core earnings." – pp. 16, 2nd para.

Superior Models

A top accounting firm features the superiority of our ROIC, NOPAT and Invested Capital research to Capital IQ & Bloomberg's in Getting ROIC Right. See the Appendix for direct comparison details.

Key quotes from the paper:

- "…an accurate calculation of ROIC requires more diligence than often occurs in some of the common, off-the-shelf ROIC calculations. Only by scouring the footnotes and the MD&A [as New Constructs does] can investors get an accurate calculation of ROIC." – pp. 8, 5th para.
- "The majority of the difference…comes from New Constructs' machine learning approach, which leverages technology to calculate ROIC by applying accounting adjustments that may be buried deeply in the footnotes across thousands of companies." – pp. 4, 2nd para.

Superior Stock Ratings

Robo-Analysts' stock ratings outperform those from human analysts as shown in this paper from Indiana's Kelley School of Business. Bloomberg features the paper here.

Key quotes from the paper:

- "the portfolios formed following the buy recommendations of Robo-Analysts earn abnormal returns that are statistically and economically significant." – pp. 6, 3rd para.
- "Our results ultimately suggest that Robo-Analysts are a valuable, alternative information intermediary to traditional sell-side analysts." – pp. 20, 3rd para.

Our mission is to provide the best fundamental analysis of public and private businesses in the world and make it affordable for all investors, not just Wall Street insiders.

We believe every investor deserves to know the whole truth about the profitability and valuation of any company they consider for investment. More details on our cutting-edge technology and how we use it are here.

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