Valens Research – UAFRS vs As-Reported Monthly Highlights | January 31, 2021

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Stock-based compensation (SBC) is an accounting headache. Just last year, PwC published a 250+ page report to help its clients navigate its intricacies.

There are multiple causes for this complexity.

First, the components of SBC can wind up in a variety of different expense categories. It is found in COGS, R&D, and commonly in SG&A. And it is not clearly and explicitly broken out, unless you wade deep into the notes of the financials.

Second, SBC can be awarded in different ways, including restricted stock and stock options, and can vary in terms of vesting periods, vesting amounts, and award frequency.

Third, and possibly most important, the size of the SBC expense is not always a straightforward calculation.

This is because one of the key components of SBC expense revolves around stock option valuation. Stock options are measured at “fair value”, but that fair value is a subjective measure. The use of the Black-Scholes model, Lattice Model, and Monte Carlo simulations are all permitted under current standards to identify this figure.

As such, even though SBC can be vital to examine when analyzing the comparability of two companies’ profitability, it often is overlooked. Investors often ignore the issues SBC presents in analyzing corporate profitability and valuation.

The fourth issue that creates problems when analyzing SBC is...it often is not a true operating expense at all. Rather, it is just savvy financing and a fictitious balancing item, not money out of the company’s pocket.

Stock options are typically valued based on things management has no control over and the company does not encounter in its day-to-day operations. In calculating stock option expenses, open market values such as stock prices, risk-free rates, and stock price volatility must be used. These are non-operational variables. They are financing ones.

Moreover, since stock options are measured at fair value, these financing variables can impact stock option expenses well after any stock option was issued. This can create an artificial drag on as-reported profitability.

For instance, if a company issued stock options two years ago and the value of the options increased significantly in the current year, it will have to report a large expense in the current period.

This occurs because the “value” of the stock option liability has increased, and the firm must mark these stock options to market. As a result, net income, retained earnings, and stockholders’ equity are all reduced. Just to balance the balance sheet.

No new stock option needs to be issued in the year in this example for this to happen and no cash outflow has occurred. Nevertheless, the firm’s bottom-line will be negatively impacted.

Do the inputs of a Black-Scholes model that cause this change, such as stock price or stock price volatility, directly impact how profitable a firm is in any given year?

The answer, of course, is no.

These factors help to solidify why stock compensation should not be viewed as an operating expense. Its inclusion in a firm’s earnings value just muddies a good analysis.

Fundamentally, SBC is a financing decision for most firms, and not an operational expense.

It is not part of most companies’ day-to-day operations. Certainly, unless cash is used to buy back shares, stock option expenses will never turn into an actual cash outlay.

That said, there are always exceptions to the rule. In some circumstances, management may be over-compensating their employees with SBC, which could result in lower-than-expected cash COGS or SG&A expenses. This can be an artificial advantage for a company that likely isn’t sustainable.

SBC is a way to compensate employees for good performance. In doing so, firms can circumvent paying salaries or issuing cash bonuses.

That said, if the company is artificially lowering cash COGS and SG&A by over-indexing its SBC-related pay relative to peers, it can look like it has stronger earnings than those peers, even though this isn’t sustainable.

At some point, when the company's stock is no longer such a valuable currency, it will have to pay more in cash compensation, and that false higher cash earnings and return on assets will normalize.

For instance, cybersecurity Palo Alto Networks (PANW) had almost $700 million in stock option expenses last year, 20.2% of revenue.

For context, a slightly smaller competitor, Fortinet (FTNT) had $189 million in stock option expense, 7.6% of revenue. Fortinet's levels are much closer to industry norms.

Simply adding back all stock compensation would therefore overstate earnings for Palo Alto.

UAFRS-based accounting captures these exceptions by making a distinction between operating and non-operating SBC.

Uniform Accounting incorporates a solution to these operating earnings issues by comparing COGS, SG&A, and SBC of a firm to peers to determine if it is possible operating earnings are flowing through the SBC line, causing a short-term understatement of cash operating costs.

In lieu of adding back all SBC, we keep this "excess compensation" as an operating expense. Then, like other non-operating expenses, the remaining SBC is added back to the firm's net income to uncover operating profitability.

Then once the income statement is repaired, we must turn our attention to the true impact of SBC, the enterprise value of the firm.

SBC is a way for companies to reward their management and employees for good performance by allowing them to become larger owners of the business.

Thus, stock options can be dilutive to stock owners. As such, SBC is an Enterprise Value issue and should be accounted for there.

To do this, the outstanding stock option claims are most accurately viewed as debt, a part of enterprise value, but separate from common shareholders. Using outstanding options and a value assessed as how "in the money" they are, we can get a clearer picture of these option holders' claims on the business.

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Stock options and other stock-based compensation can be incredible motivators for management and employees. With unlimited upside potential, and skin in the game if the stock underperforms, due to pay left on the table, they are a great way to align management with investors, by turning them into investors.

That is why they are used so often by companies.

However, for investors, this same incentive can be a nightmare to decipher. Investors who view SBC as an operating expense rather than a claim on enterprise value can be completely missing a firm's true profitability potential. And those who don't capture the nuance for when it is an operating expense will have incorrect conclusions about a company.

This can lead to poorer investment decisions. And that's what we try to avoid by providing Uniform Accounting data.

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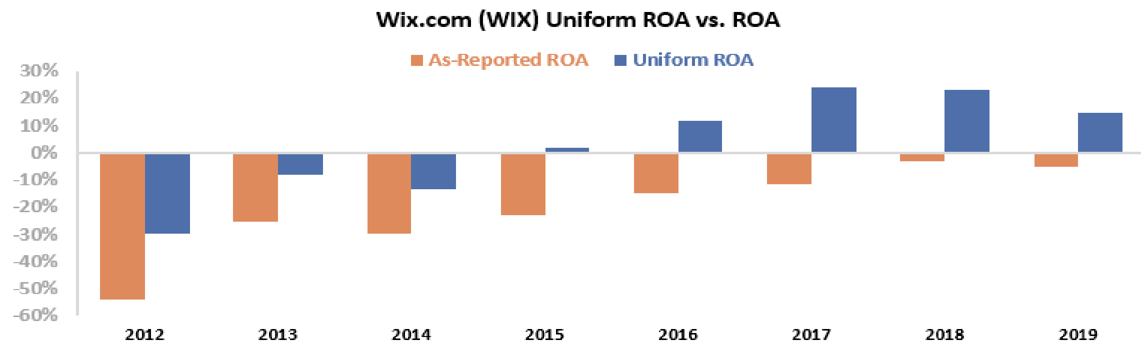
WIX – UAFRS shows how as-reported metrics miscite true profitability

Since 2015, WIX shares have increased significantly, rising from approximately $21/share to over $250/share, an over 1,000% price appreciation. That said, according to the market, WIX appears to be a firm that has yet to achieve positive profitability, and not a company that had seen notable fundamental improvements.

However, using Uniform Accounting, we can identify distortions such as net income being artificially decreased due to GAAP treatment of stock options. Specifically, stock options are treated as an expense, rather than a non-cash dilution to equity holders, and as such WIX sees profitability metrics that understate reality. According to as-reported metrics, WIX's ROA ranged between -23% and -3% between 2015 and 2019. Meanwhile, UAFRS-adjusted metrics paint a significantly different picture, where Uniform ROA maintained positive levels, rising from 2% to 15% over the same period. These profitability levels suggest the stock price appreciation may have been warranted.



Sources: UAFRS, CaptialIQ

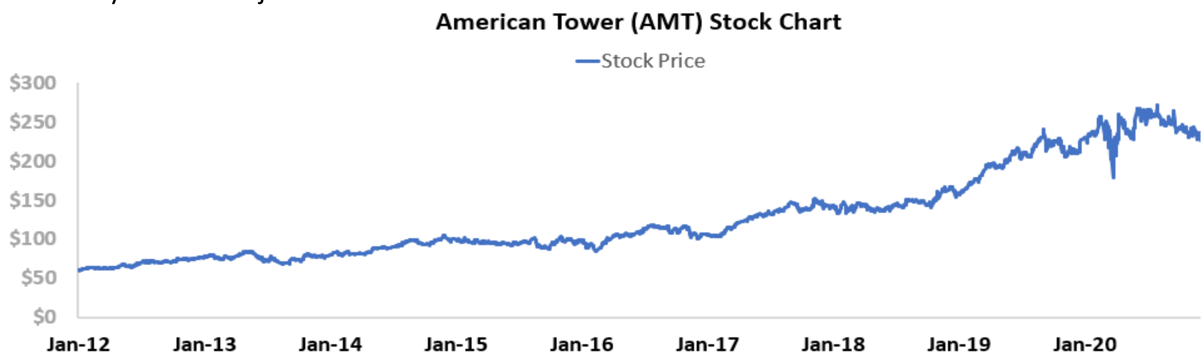
WIX - Wix.com Ltd.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Stock Option Expense		4.7	1.0	7.3	13.9	18.8	28.0	47.7	72.3	109.3
Uniform Earnings		-7.3	-3.6	-6.0	-12.6	2.1	19.3	42.5	98.0	93.5
Net Income		-22.7	-15.0	-28.7	-56.6	-51.3	-46.9	-56.3	-37.1	-86.4
% Variance		209.9%	318.0%	378.0%	350.0%	-2493.1%	-342.9%	-232.5%	-137.9%	-192.4%
Uniform Net Assets		13.6	12.1	74.8	92.4	111.6	162.5	177.8	428.3	632.2
Total Assets		18.6	16.1	115.4	118.4	149.4	214.7	330.0	844.8	1099.7
% Variance		37.2%	33.0%	54.2%	28.1%	33.9%	32.1%	85.6%	97.2%	73.9%
Uniform ROA		-54.1%	-29.7%	-8.0%	-13.6%	1.9%	11.9%	23.9%	22.9%	14.8%
ROA		0.0%	-53.9%	-25.5%	-29.8%	-22.7%	-15.1%	-11.5%	-3.3%	-5.2%
Uniform ROA vs ROA - Variance		-54.1%	24.3%	17.5%	16.2%	24.6%	27.0%	35.4%	26.1%	19.9%

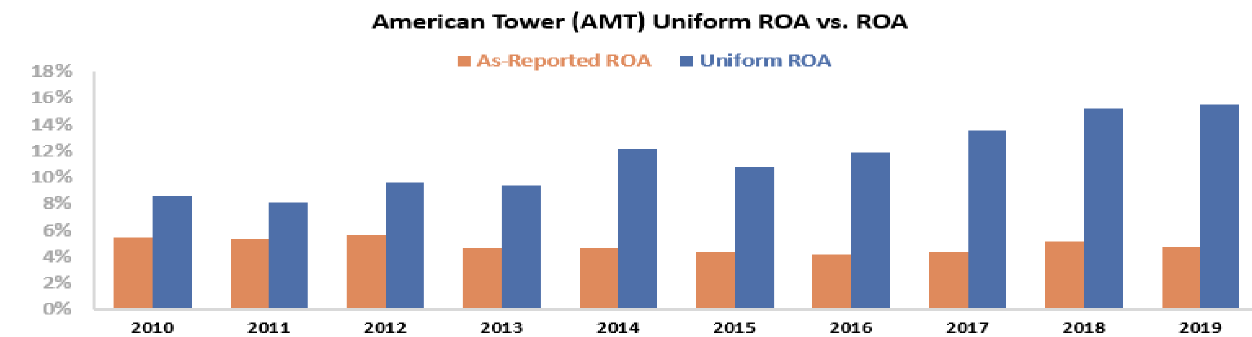
*in USD millions

AMT – Without Uniform Accounting investors can miss out on towering returns

Between 2012 and 2020, AMT shares increased dramatically, rising from roughly $60/share in 2010 to $250/share in 2019, a gain of more than 300%. And yet, to the market, AMT appears to be a firm with consistent near-cost of capital returns, and not one with fundamental improvements warranting stock appreciation.

However, using Uniform Accounting, we can identify distortions such as a firm's earnings being overstated due to a mistreatment of operating leases. According to as-reported metrics, AMT maintained an ROA of 4%-6% since 2010, near the cost-of-capital. Meanwhile, UAFRS-adjusted metrics paint a significantly different picture of AMT, where Uniform ROA expanded dramatically from 8% to 16% over the same timeframe, suggesting the firm's stock price appreciation may have been justified.





Sources: UAFRS, CaptialIQ

AMT - American Tower Corporation (REIT)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Rental Expense	300.0	366.1	419.0	495.2	655.0	804.8	986.2	1,088.0	1,128.0	1,013.1
Capitalized Operating Lease Investment	4,213.4	5,141.8	5,691.7	6,701.5	8,848.6	10,582.6	12,597.1	14,306.6	14,659.9	13,370.2
Uniform Earnings	715.4	815.2	1,098.3	1,251.5	1,820.9	1,932.1	2,446.9	3,125.7	3,625.7	3,685.4
Net Income	372.9	396.5	637.3	551.3	824.9	685.1	956.4	1,238.9	1,236.4	1,887.8
% Variance	-47.9%	-51.4%	-42.0%	-55.9%	-54.7%	-64.5%	-60.9%	-60.4%	-65.9%	-48.8%
Uniform Net Assets	8,261.5	10,051.3	11,459.4	13,332.5	15,020.7	17,840.2	20,587.6	23,069.5	23,888.4	23,710.3
Total Assets	10,370.1	12,242.4	14,089.4	20,283.7	21,263.6	26,904.3	30,879.2	33,214.3	33,010.4	42,801.6
% Variance	25.5%	21.8%	23.0%	52.1%	41.6%	50.8%	50.0%	44.0%	38.2%	80.5%
Uniform ROA	8.7%	8.1%	9.6%	9.4%	12.1%	10.8%	11.9%	13.5%	15.2%	15.5%
ROA	5.4%	5.3%	5.6%	4.7%	4.7%	4.4%	4.2%	4.4%	5.2%	4.7%
Uniform ROA vs ROA - Variance	3.2%	2.8%	4.0%	4.7%	7.4%	6.5%	7.7%	9.2%	10.0%	10.8%

*in USD millions

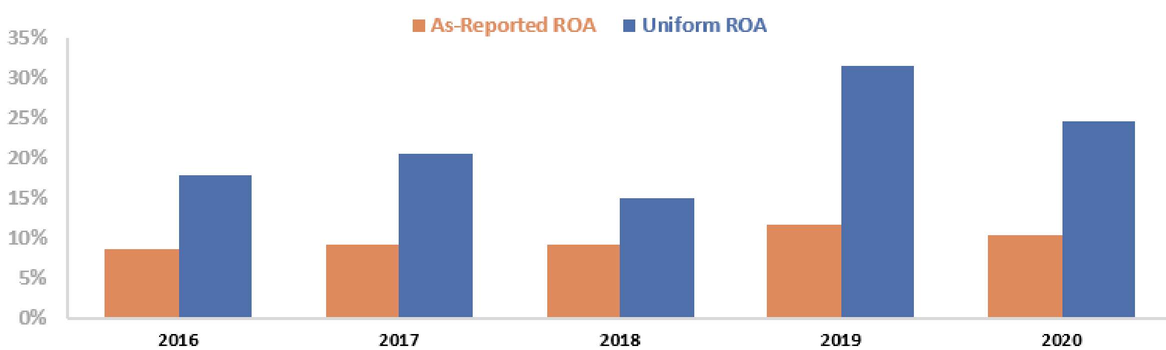
XLNX – Uniform Accounting cuts as-reported metric distortions

Since 2016, XLNX shares have seen a meaningful stock price appreciation, rising from about $50/share to over $145/share, an increase of almost 200%. And yet, to the market, XLNX appears to be a firm with steady, near corporate average profitability, which would fail to justify the company's stock performance.

That said, using Uniform Accounting, we can identify distortions such as a firm carrying excess assets on the balance sheet due to the treatment of excess cash, as is the case with XLNX, which substantially suppresses profitability metrics. Due to its significant cash balance, as-reported metrics make the firm appear to have seen near corporate average profitability, with ROA ranging from 9%-12% in 2016-2020. Meanwhile, UAFRS-adjusted metrics paint a significantly different picture of XLNX, showing a firm with robust Uniform ROA in recent years, improving from 18% in 2016 to 25%+ levels in 2019-2020 potentially justifying the company's stock appreciation.

Xilinx (XLNX) Stock Chart

Xilinx (XLNX) Uniform ROA vs. ROA



Sources: UAFRS, CaptialIQ

XLNX - Xilinx, Inc.	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cash & Short-term Investments	1,926.4	1,917.6	1,714.7	2,457.3	3,303.1	3,337.7	3,321.5	3,447.6	3,175.7	2,267.2
Excess Cash	1,170.1	1,142.7	870.6	1,544.9	2,366.4	2,350.6	2,330.8	2,378.3	2,049.8	954.0
Operating Cash	756.4	774.9	844.1	912.4	936.6	987.1	990.6	1,069.2	1,125.9	1,313.2
Uniform Net Assets	2,661.3	2,626.8	2,764.6	2,907.4	3,031.2	3,115.9	3,154.4	3,539.6	3,605.1	3,924.9
Total Assets	4,140.9	4,464.1	4,729.5	5,037.3	4,898.1	4,823.2	4,740.5	5,060.5	5,151.3	4,693.3
% Variance	55.6%	69.9%	71.1%	73.3%	61.6%	54.8%	50.3%	43.0%	42.9%	19.6%
Uniform ROA	27.5%	24.8%	22.3%	26.6%	26.1%	17.9%	20.6%	15.0%	31.6%	24.7%
ROA	13.7%	9.4%	7.9%	9.7%	9.8%	8.6%	9.2%	9.2%	11.7%	10.5%
Uniform ROA vs ROA - Variance	13.8%	15.4%	14.4%	16.9%	16.3%	9.3%	11.4%	5.8%	19.8%	14.2%

*in USD millions

Valens Research Glossary

Asset' – Net Asset' is calculated as Net Working Capital + Long Term Non-Depreciating Operating Assets (including Land and Non-Depreciating Operating Intangible Assets, excluding Goodwill and other acquisition-related Intangible Assets) + Inflation-Adjusted Net PP&E + Net capitalized R&D + Net Capitalized Leases + Net Depreciating Operating Intangible Assets

Earnings Call Forensics™ – Valens Research analysis includes a powerful proprietary process for studying and evaluating representations made by management during quarterly earnings calls and other public events. Valens uses tools and systems that other sell-side firms and credit agencies have been either unwilling or unable to use. Their reluctance to use these technologies often stems from their fear of endangering their relationships with management teams.

iCDS – Valens calculates proprietary, Intrinsic CDS (Credit Default Swap) for thousands of firms as their fundamentals change. Early markers can be invaluable in predicting price movements, particularly when seeing credit quality changes where no CDS are traded, where speculative or illiquid CDS fails to provide reliable information, or where rating agencies are too slow.

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Most Compelling Long Ideas – The most compelling long ideas based on all five proprietary value drivers: UAFRS-adjusted ROA, Asset' Growth, V/A', V/E', and TSRr. These are companies that Valens maintains a positive outlook on, relative to current market valuations. The higher on the list a name appears, the more positive Valens' opinion of the name is, based on our fundamental factors.

UAFRS-adjusted ROA – UAFRS-adjusted ROA is a cleaned up Return on Asset ratio, used to understand the operating fundamentals of the company. UAFRS-adjusted ROA is Earnings' divided by Asset'. Earnings' is calculated as Net Income + Special Items + Interest Expense + Depreciation and Amortization Expense + R&D Expense + Rental Expense + Minority Interest Expense + Pension Charges + LIFO to FIFO adjustments + Stock Option Expense + Purchase Accounting Cash Flow Adjustments - Non-Operating (Investment) Income - Asset Life Based Charge on Depreciating Assets. Asset' is Net Asset', or Net Working Capital + Long-Term Non-Depreciating Operating Assets (including Land and Non-Depreciating Operating Intangible Assets, excluding Goodwill and other acquisition related Intangible Assets) + Inflation Net PP&E + Net Capitalized R&D + Net Capitalized Leases + Net Depreciating Operating Intangible Assets.

UAFRS-adjusted ROA Momentum – UAFRS-adjusted ROA momentum is Valens' metric to understand the change in projected UAFRS-adjusted ROA and earnings momentum. This metric analyzes what the first forecast year projected UAFRS-adjusted ROA was one month ago, and what the projected UAFRS-adjusted ROA is today. This helps in identifying companies where analyst expectations for fundamentals are improving, and companies where analyst expectations for fundamentals are growing more negative.

TSRr – Total Shareholder Returns (TSR) Relative are traditionally known as the capital gains of the stock, adjusted for any stock splits or similar action, plus dividends, over some period of time. No adjustments are made to the well-known standard calculation. TSRr calculates the TSR relative to the performance of the S&P 500 in the USA, or some other major market index if more relevant when examining companies in other countries.

V/A' – V/A' is a cleaned up Enterprise Value to Net Asset ratio, used to understand the multiple on Net Asset that the debt and equity markets value the company at. Generally, businesses that produce higher UAFRS-adjusted ROA's and have no credit concerns or other reasons to believe they are not "going concern" businesses trade at higher V/A'. V is Enterprise Value', defined as Market Cap + Minority Interest + Adjusted Book Debt - Excess Cash. A' is Net Asset', or Net Working Capital + Long-Term Non-Depreciating Operating Assets (including Land and Non-Depreciating Operating Intangible Assets, excluding Goodwill and other acquisition related Intangible Assets) + Inflation Net PP&E + Net Capitalized R&D + Net Capitalized Leases + Net Depreciating Operating Intangible Assets.

V/E' – V/E' is a cleaned up Enterprise Value to Earnings ratio, used to understand the value the debt and equity markets ascribe to the company's cash flows. V is defined as Enterprise Value', which is Market Cap + Minority Interest + Adjusted Book Debt - Excess Cash. E' is defined as Earnings Prime. Earnings Prime is calculated as Net Income + Special Items + Interest Expense + Depreciation and Amortization Expense + R&D Expense + Rental Expense + Minority Interest Expense + Pension Charges + LIFO to FIFO adjustments + Stock Option Expense + Purchase Accounting Cash Flow Adjustments - Non-Operating (Investment) Income - Asset Life Based Charge on Depreciating Assets.

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