

# AMERICAN BANKRUPTCY INSTITUTE JOURNAL

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## Turnaround Topics

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### Markets' Treatment of Stock-Based Compensation Can Distort Valuations



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Stock-based compensation (also known as share-based compensation and referred to herein as SBC) increasingly has become a popular compensation component for high-talent employees, potentially boosting their total compensations and retaining their services while conserving corporate cash. SBC does not just apply to the C-suite team or senior-most executives these days; it often includes dozens or hundreds of key mid-level employees (depending on firm size) who are deemed critical to the firm's success.

SBC has long been a compensation practice at cash-conscious venture-capital-funded startup firms that cannot afford to lavish high all-cash salaries on critical employees, such as software engineers or data scientists, many of whom could take their talent to Wall Street for more lucrative pay. SBC gives these coveted employees a route to wealth if the startup eventually scales in size and goes public. Today, usage of SBC has extended beyond startups and is a common compensation component of many public companies, especially in technology-related industries.

Arguably, SBC is an enduring legacy of startup culture, as public companies recognize its power to attract and retain high-priced talent. NVIDIA, one of the most valuable public companies on the planet, incurred close to \$5 billion in SBC expenses in 2024 and has created many employee millionaires in recent years from its SBC. The relative size of the SBC component of total compensation at public companies has grown as well. We have identified 476 public companies with revenues of more than \$100 million and total SBC expenses greater than 5 percent of revenue in 2023, or about 22 percent of all public companies with SBC expenses, compared to 246 such companies (13 percent) in 2019. This is compelling evidence

of the growing prevalence of large SBC programs across public companies.

SBC often takes the form of restricted stock grants to eligible employees that vest over a defined period of employment, with full vesting typically occurring within a few years after the grant date. These shares are restricted in the sense that employees cannot sell shares until they are vested — or will not receive delivery of shares from the company until vesting has occurred. For employees who receive grants of restricted stock each year, each annual grant is subject to a vesting period — effectively creating a rolling vesting period for those employees and keeping them motivated not to leave or risk forfeiting unvested shares back to the company. In scenarios where the firm's share price has appreciated substantially subsequent to a share grant, such a forfeiture can be quite costly for the employee. (Apparently, you can put a price on loyalty.)

The value of share grants is usually determined by referencing the stock price of the company at or around the time of the grant, or the volume-weighted average share price for a period preceding the grant date. For venture-capital-funded companies, the share value of a stock grant would likely reference enterprise value used in the most recent funding round or a § 409A Internal Revenue Code valuation.<sup>1</sup> It is unusual for restricted share grants to nonexecutive employees under SBC programs to be made at prices materially discounted to a market share price or valuation estimate near the grant date — that is, with a built-in profit for the recipient, who only looks to benefit financially from

<sup>1</sup> "409A Valuation FAQ and Guide," Morgan Stanley, [morganstanley.com/atwork/articles/409a-valuation-faq](https://morganstanley.com/atwork/articles/409a-valuation-faq) (unless otherwise specified, all links in this article were last visited on Jan. 22, 2025).

future market price gains or independently determined valuation markups.

The Generally Accepted Accounting Principles (GAAP) treatment of SBC plans for employees (primarily under guidance provided by ASC 718, “Compensation — Stock Compensation”) requires companies to recognize SBC as an operating expense in a prorated manner over the time period in which these stock grants vest. For GAAP-reporting purposes, employee-compensation expense, whether in the form of cash salaries or vested SBC, is treated as an operating expense that reduces profitability, as one would logically expect. Shares issued to employees under SBC programs are dilutive to earnings per share and potentially can become materially dilutive over time as the cumulative effects of share grants build up. To mitigate this dilutive effect, public companies sometimes repurchase shares in the open market to help offset new share issuances associated with SBC.

However, public companies that provide adjusted EBITDA (earnings before interest, taxes, depreciation and amortization) as a disclosed non-GAAP metric of operating performance in Securities and Exchange Commission (SEC) filings and investor presentations almost always treat SBC expense as an addback item for purposes of calculating adjusted EBITDA due to its noncash nature, in much the same way that depreciation expense is added back for such purposes — essentially negating it as an ongoing business cost.

## Adjusted EBITDA: Informative or Illusory?

There is an earlier *ABI Journal* article on the potentially deceptive nature of adjusted EBITDA as a performance metric, the wide discretion that corporate management has in deciding what expenses will be considered addbacks, and management’s ability to boost this metric through the aggressive use of addbacks that often are accepted without scrutiny by the investment community.<sup>2</sup> For struggling companies trying to mitigate their underperformance with dubious addbacks, the scrutiny might come too late. For public companies consistently disclosing an adjusted EBITDA metric, the average difference between the calculation of conventional EBITDA margin and adjusted EBITDA margin was approximately 500 basis points from 2019-22 across more than 450 companies — and the difference was considerably larger than for the communications and technology sectors. The subsequent update of this exercise for 2023 was highly consistent with these previous results. SBC expense consistently was one of the largest components of these margin differences and should be integral to any discussion about the potential drawbacks of using adjusted EBITDA as a proxy measure of operating performance.

The growing usage and disclosure of an adjusted EBITDA metric by reporting companies is indisputable.

The authors have noted that 801 out of 1,920 U.S. public companies (42 percent) with revenues of at least \$100 million provided adjusted EBITDA computations in their Form 10-K filings in 2023. In 2019, only 509 of these companies (or 27 percent) disclosed an adjusted EBITDA metric. Increasingly, public companies have recognized the advantages of providing an adjusted EBITDA disclosure in SEC filings and investor presentations, as it allows them to better influence the narrative around operating performance and can impact the ways in which analysts and investors interpret performance and value the enterprise.

Public companies that disclose adjusted EBITDA in their periodic SEC filings usually provide “a bridge” or reconciliation of net income or operating income to adjusted EBITDA, listing broad line-item addbacks, which will include nonoperating or nonrecurring cash-based expenses, such as litigation costs or merger-related expenses, as well as nonrecurring noncash expenses, such as asset write-downs and charge-offs. The intent of all this is to normalize the presentation of operating results by purging the disclosure of expense items deemed by management to be distorting. SBC expense and depreciation and amortization expense are typically the largest recurring noncash addbacks in the derivation of adjusted EBITDA across industries.

## SBC Expense: Now You See It, Now You Don’t

The primary objection around the treatment of SBC expense as an addback for purposes of calculating adjusted EBITDA is that it effectively causes SBC compensation to magically vanish as if it never happened. Unlike depreciation and amortization expense, which is meant to allocate the total cost of an expenditure over the periods that benefit from its use, SBC expense reflects a true business cost in each reporting period despite its noncash nature.

Consider two firms identical in all respects except one: Both have \$100 million in sales, \$50 million in total compensation expense, \$20 million of selling general and administrative expense, \$10 million of depreciation and amortization expense, and \$20 million of operating profit. However, Firm A pays all of its employees entirely in cash, while Firm B pays \$40 million in cash and \$10 million in SBC expense. Firm A would report \$30 million of adjusted EBITDA compared to \$40 million for Firm B, even though the total compensation expense is identical.

This distinction becomes problematic when equity analysts and investors use adjusted EBITDA in their estimation of enterprise value and share value, such as applying a multiple to adjusted EBITDA to derive an enterprise value and implied share price, which is a common practice. In the example, Firm B would be ascribed a larger valuation than Firm A if adjusted EBITDA is the basis for imputing enterprise value, even though their operating performances are virtually identical. Conversely, there is less interpretive ambiguity around measures of performance that are GAAP-compliant, such as basic and diluted earnings per share, which would reflect SBC as an operating expense and the effect of SBC share issuance, as well as market valuation metrics derived from it, such as the price-to-earnings ratio.

2 Carolyn Taylor & John Yozzo, “Adjusted EBITDA Is in the Eye of the Beholder,” *XLI ABI Journal* 6, 38-39, 60-61, June 2023, [abi.org/abi-journal/adjusted-ebitda-is-in-the-eye-of-the-beholder](https://abi.org/abi-journal/adjusted-ebitda-is-in-the-eye-of-the-beholder); Carolyn Taylor & John Yozzo, “EBITDA Addbacks Have Become Problematic,” *XLI ABI Journal* 2, 26-27, 46-48, February 2022, [abi.org/abi-journal/ebitda-addbacks-have-become-problematic](https://abi.org/abi-journal/ebitda-addbacks-have-become-problematic).

Assuming that public companies pay competitive compensation packages to key employees that neither systematically overpay nor underpay them, it could be forcefully argued that any distinction between cash and noncash compensation expense should be considered irrelevant for purposes of evaluating operating performance and determining enterprise value, as similarly skilled key workers will command comparable compensation packages across companies irrespective of the components. Ignoring SBC expense for this purpose

would imply that Firm B has a labor cost advantage compared to Firm A, which is not the case.

## Treatment of SBC Expense by Investors Impacts Valuations

Such differences in treatment can have profound valuation implications. Consider that when a multiple is applied to an operating metric to estimate enterprise value, it is a shorthand form of a discounted-cash-flow model (DCF) that theoretically values that metric in perpetuity. In a DCF model,

Exhibit 1

Akamai Technologies Inc.		12/31/2020	12/31/2021	12/31/2022	12/31/2023	01/16/2025	01/16/2025
NasdaqGS:AKAM							
						Analysts' Consensus	
(\$ amounts in millions except share price and EPS)		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024 est.	FY 2025 est.
Revenue		\$3,198.1	\$3,461.2	\$3,616.7	\$3,811.9	\$3,985.3	\$4,250.7
EBITDA, Including SBC Expense		\$1,041.6	\$1,193.7	\$1,145.9	\$1,101.0		
Margin		32.6%	34.5%	31.7%	28.9%		
EBITDA, Excluding SBC Expense		\$1,268.60	\$1,428.80	\$1,394.30	\$1,462.00		
Margin		39.7%	41.3%	38.6%	38.4%		
Adjusted EBITDA <sup>(1)</sup>		\$1,397.5	\$1,560.9	\$1,529.7	\$1,607.6	\$1,664.6	\$1,788.7
Margin		43.7%	45.1%	42.3%	42.2%	41.8%	42.1%
SBC Expense		\$227.0	\$235.2	\$248.5	\$361.0		
Margin Attributable to SBC	Margin	7.1%	6.8%	6.9%	9.5%		
Basic EPS <sup>(2)</sup>		\$3.43	\$4.01	\$3.29	\$3.59		
Diluted EPS <sup>(2)</sup>		\$3.37	\$3.93	\$3.26	\$3.52	\$3.20	\$4.04
Adjusted EPS <sup>(3)</sup>		\$5.22	\$5.74	\$5.37	\$6.20	\$6.34	\$6.81
Basic Shares Outstanding	in millions	162.5	162.7	159.1	152.5		
Diluted Shares Outstanding	in millions	165.2	165.8	160.5	155.4		
Share Price at Year-End		\$105.0	\$117.0	\$84.3	\$118.4	\$90.5	\$90.5
Average Share Price		\$102.2	\$109.8	\$98.6	\$94.5		
SBC Shares Issued (Estimated)	in millions	2.2	2.1	2.5	3.8		
Equity Market Cap		\$17,091.7	\$19,016.6	\$13,255.5	\$17,850.9	\$13,595.5	\$13,595.5
TEV		\$17,246.3	\$19,109.7	\$15,056.2	\$20,204.9	\$16,267.2	\$16,267.2
TEV / EBITDA, Including SBC Expense		16.6	16.0	13.1	18.4		
TEV / EBITDA, Excluding SBC Expense		13.6	13.4	10.8	13.8		
TEV / Adjusted EBITDA		12.3	12.2	9.8	12.6	9.8	9.1

Source: S&P Capital IQ.

<sup>(1)</sup> Adjusted EBITDA excludes SBC expense and other addbacks.

<sup>(2)</sup> Basic and Diluted EPS are GAAP-compliant.

<sup>(3)</sup> Adjusted EPS is not GAAP-compliant and excludes SBC expense and other addbacks.

annual operating cash flows are projected for several years until the firm assumedly reaches a steady state of growth where it is no longer capable of generating growth above a rate of inflation.

The value of that steady state of cash flow in perpetuity is referred to as its terminal value (TV), and it is derived as follows:  $TV = CF_{(t)} / (k - g)$ , where  $CF_{(t)}$  is the terminal-year cash flow,  $k$  is the appropriate cost of capital for the firm, and  $g$  is the assumed growth rate of that cash flow in perpetuity, typically an assumed rate of inflation or slightly higher. Mathematically, this calculation is the value of a constant growth rate of cash flow in perpetuity when  $k > g$ . The derived terminal value is then brought to present value by applying an appropriate discount factor to it  $[TV / (1 + k)^t]$ , where the present value of  $TV$  is a function of  $k$  and the number of years ( $t$ ) until a terminal value is reached.

All of this is to say that a multiple applied to a cash flow also can be thought of as valuing that cash flow in perpetuity. For example, a valuation multiple of 20x applied to an annual cash flow  $CF_{(t)}$  is the equivalent of  $CF_{(t)} / (k - g)$ , where  $k = 8$  percent and  $g = 3$  percent. When an analyst or investor applies a valuation multiple to an adjusted EBITDA amount that excludes SBC, it inherently assumes that the firm will pay SBC indefinitely and that this expense effectively is without cost for valuation purposes.

In the previous example, a multiple of 20X applied to adjusted EBITDA would value Firm A at \$600 million and Firm B at \$800 million, even though they have identical operating income. We argue that total compensation expense (cash salaries and SBC) is the amount required to attract and retain high-talent workers, and that there is no good reason to exclude any component of it when evaluating normalized operating performance or valuing an enterprise.

The passive acceptance and use of company-provided adjusted EBITDA figures by the investment community is not merely conjecture. There are numerous examples of equity analysts referencing adjusted EBITDA as the basis for their projections in forecast models to derive equity price targets.

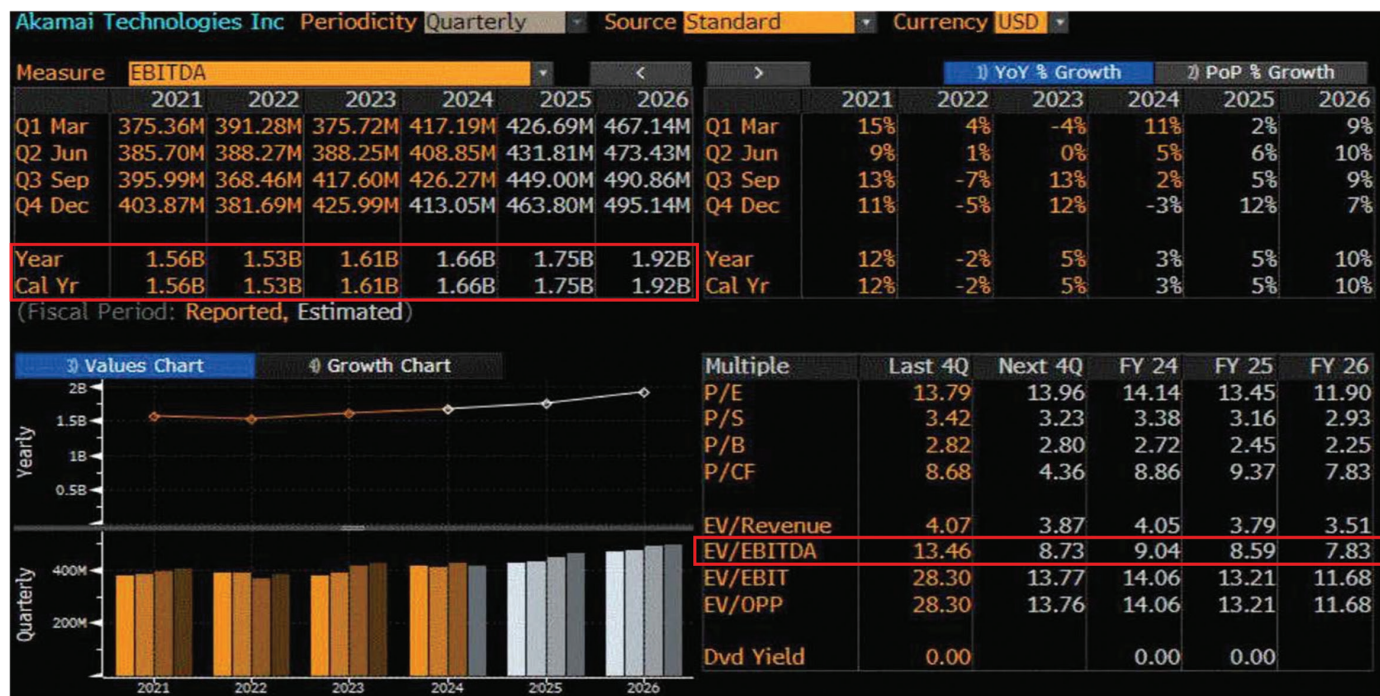
A “real world” example of ignoring SBC expense is shown below. Akamai Technologies, a 25-year-old technology company providing cloud-based services to businesses, consistently reports adjusted EBITDA amounts that are significantly greater than a standard calculation of EBITDA (per S&P Capital IQ) that does not consider SBC expense as an addback (see Exhibit 1). The difference is sizeable, with SBC expense adding between 680 and 950 basis points to annual adjusted EBITDA margin in recent years.

Moreover, equity analysts that cover the company produced consensus estimates for EBITDA in 2024 and 2025 that built on adjusted EBITDA figures (see Exhibits 1 and 2). In other words, their forecast models also incorporate an adjusted EBITDA calculation similar to the company’s computation. Consequently, valuation multiples for the company — both historical and projected — appear to be materially lower than they would have been using a conventional measure of EBITDA, as SBC expense is ignored by both the company and the equity analysts that cover it. Poof — several hundred million dollars of annual SBC expense simply disappears for valuation purposes. Harry Houdini would be impressed.

## Conclusion: Out of Sight, Out of Mind

It is hard to discern whether the lack of robust discussion in business and academic circles around the general topic of increasing usage and reliance on adjusted EBITDA, as

Exhibit 2



Source: Bloomberg.

well as the treatment of SBC expense in that process, is the result of willful ignorance, careless oversight or deference to management's judgment in these matters. No matter the reason, executive-management teams of public companies have strong incentives to be aggressive with their computations of adjusted EBITDA, provided there is at least some justification for the addback, however flimsy it might be. This admonition is also relevant for underperforming and distressed companies that are mindful to present operating performance in its most favorable light. The growing tendency of companies, analysts and investors alike to rely on adjusted EBITDA and its many addbacks likely will continue until there is pushback or blowback. **abi**

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