Net Cash Per Share: The Key to Disclosing SPAC Dilution

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Introduction

The Securities and Exchange Commission (SEC) has recently proposed regulations that would address a wide range of issues governing special purpose acquisition companies (SPACs).1 Central among these issues is the disclosure of a SPAC’s dilution and dissipation of cash as of the time of its merger, a topic two of us have addressed in an earlier article.2 The SEC’s concern (and ours) is that when a SPAC exchanges its equity for that of a target company, the value of the SPAC’s equity is not what it appears to be, and not what it is stated to be in its merger agreement. First, the SPAC’s equity is spread among claimants that paid no cash into the SPAC. Second, much of the cash that was paid into the SPAC at the time of its IPO will have been paid out to various advisors by the time of the merger. As the SEC proposal recognizes, SPAC proxy statements fail to disclose how little net cash each SPAC share represents, and hence how much net cash will be exchanged for shares in the merger target.

In this Essay we follow up on our prior Article by explaining exactly what a SPAC must disclose in order to inform its shareholders of how much net cash will be invested in a proposed merger—and how that net cash is related to the value shareholders can expect to reap by choosing not to redeem their shares and instead invest in the merger. Because we are writing this Essay in response to the SEC’s proposal, we take a very nuts-and-bolts approach. We explain that disclosure of dilution requires a calculation of net cash per share, and we explain how to do that calculation. We also include an Appendix with FAQs, which are based on questions we have gotten in response our earlier Article. In doing so,

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2. The SEC proposal in certain places refers "dilution," but to be precise, the draining of net cash from SPAC shareholders results from both dilution and dissipation of cash. Michael Klausner, Michael Ohlrogge & Emily Ruan, A Sober Look at SPACs, 39 YALE J. ON REGUL. 228 (2022) [hereinafter Sober Look].
we construct a “how-to guide” for the SEC to require SPACs to disclose the extent to which they have diluted equity and dissipated cash as of the time of a merger.

When SPACs merge, they treat their shares as being worth $10 each, and in their proxy statements, they describe those shares directly or indirectly as being worth $10. Yet they also disclose that they have entered into transactions that dilute their shares and dissipate their cash—they have issued free warrants; their sponsor has taken 20% of their post-IPO equity essentially for free; and more. As a result, the net cash underlying SPAC shares—and hence, the cash that will be invested in a target—tends to be substantially less than $10. How much less? This varies among SPACs and is not disclosed. Even if the raw information is provided somewhere in the proxy statement, that information is difficult to find, and it is difficult to perform one’s own calculation with any certainty.

Disclosure of net cash per share at the time of a SPAC’s merger is necessary to allow shareholders to make an informed decision as to whether to redeem their shares (for roughly $10 per share) or to invest in a proposed merger. A SPAC’s merger is, in effect, an investment of cash in the target; and a shareholder’s participation in the merger is an investment of the net cash underlying that shareholder’s shares. One would expect the amount of net cash invested in a target to be closely related to the value of post-merger shares that SPAC shareholders receive in exchange. Our research bears this relationship out empirically, showing that the lower the net cash per share that a SPAC delivers, the lower the post-merger share price will be. In some cases, a SPAC may get more value for shareholders, but at least as a baseline for analysis, net cash per share is material to the shareholders’ investment decision.

In our earlier article, we proposed that the SEC require SPACs to explicitly disclose to shareholders the amount of net cash underlying each share at the time they merge. In this Essay, we specify in detail how SPACs should calculate and disclose to shareholders their net cash per share after taking into account all sources of dilution and dissipation of cash.

I. **Background: Dilution and Dissipation of Cash**

When a SPAC merges, the $10 that investors paid for units in the SPAC’s IPO will have been diluted and dissipated in several ways. It is diluted initially at the time of the IPO, but the extent of dilution can increase or decrease by the time of the merger. It is at the time of the merger that SPAC shareholders make

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their investment decision—whether to invest in a proposed merger or redeem their shares. Accordingly, when a SPAC proposes a merger, shareholders must be informed of how much net cash remains underlying their shares—that is, how much cash will actually be invested in the target company.

A. Sources and Extent of Dilution and Dissipation of Cash

Dilution of SPAC equity begins at the time of the IPO. First, there is the sponsor’s “promote,” consisting of shares that the sponsor takes essentially for free as compensation for its services, and which by custom is set equal to 20% of the SPAC’s post-IPO equity. Leaving aside other sources of dilution, if a SPAC sells 80 shares in its IPO for $10 each and gives 20 shares as a promote to its sponsor for free, the SPAC holds $8.00 in cash per share.\(^5\) Other sources of dilution at the time of the IPO that further dissipate the $8.00 in cash per share are free warrants typically issued to IPO investors\(^6\) and warrants issued to the sponsor in exchange for an investment the sponsor makes concurrently with the IPO. The proceeds of that investment will be spent on the SPAC’s initial underwriting fee and its expenses between the time of the IPO and the merger.

At the time of a SPAC’s merger, net cash per share may increase or decrease. It will decrease as a result of a deferred underwriting fee and additional financial advisory fees that many SPACs pay. In addition, redemptions increase dilution. Redemptions reduce both cash and shares—the numerator and the denominator of the net-cash-per-share ratio—but they reduce cash by a proportionately greater factor, which reduces the ratio. This is because each redemption eliminates approximately $10 of cash in the numerator and one share in the denominator but does not proportionately reduce the number of the sponsor’s promote shares in the denominator that do not come with any cash. On the other hand, net cash per share will increase to the extent a SPAC issues new equity through a PIPE at $10 per share and to the extent the sponsor agrees to forfeit some of its shares or warrants in negotiating the merger.\(^7\)

Net cash per share at the time of a merger varies among SPACs and over time. Among SPACs that merged between January 2019 and June 2020, pre-redemption net cash per share at the time of the merger, on average, was $7.50, and post-redemption net cash per share was $4.10.\(^8\) There was a wide variance, however, around these averages. Among SPACs that merged between September

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5. In negotiations with targets or PIPE investors, some sponsors agree to cancel a small portion of their promote at the time of a SPAC’s merger, or to subject a portion of the promote to an “earnout,” which will cancel some promote shares if specified posts-merger price targets are not met. Our research finds that these concessions are quite small and have little impact on SPAC costs.

6. Because IPO investors pay $10 per unit and have the right to redeem shares alone for $10 plus interest, the warrants they receive are free (whether the investor chooses to redeem, sell or hold its shares).

7. Convertible securities or warrants issued with a PIPE, however, would reduce net cash per share.

8. There is every reason to believe that target companies will be aware of the wide range of possible redemption scenarios, and will decide whether to merge with a SPAC based on whether they believe the deal will still be attractive to them, given their estimates of what redemptions will be.

20
2021 and November 2021, we estimated that post-redemption net cash per share was $6.40, which reflected relatively large PIPEs at $10 a share and a much lower rate of redemption during that period.

B. Informing SPAC Shareholders’ Redemption Decision

The SEC has proposed that SPACs be required to disclose dilution. The way to do this is to require disclosure of net cash per share at the time of a SPAC’s merger. The SEC proposed that dilution be disclosed both at the time of a SPAC’s IPO and at the time of its merger. It is the latter, however, that is most important. The merger is the moment at which a SPAC shareholder makes an investment decision. Until that time, a shareholder has a right to redeem its shares. Just as a prospectus informs the decision to invest in an IPO, a proxy statement informs the decision to invest in the combined company that will be the result of the merger.

The net cash per share in a SPAC is the amount of cash a SPAC shareholder will in effect invest in a merger, on a per share basis, after accounting for dilution and dissipated cash. That amount of cash will be closely related to the value of target shares the SPAC shareholder will receive, and hence is highly material to the shareholder's investment decision. Unless the target expects to derive significant non-cash value by merging with a SPAC, one would expect a target company to exchange roughly $6 of value for a SPAC share with underlying net cash of $6. If it does, the post-merger value of the SPAC share will be $6.

A target may envision additional value in merging with a SPAC beyond the cash infusion it will receive. For example, it may expect the continued engagement of the SPAC’s sponsor or management to enhance its value, or it may see value in becoming a public company. To the extent the target cannot gain equivalent value through an IPO or a private financing transaction, it may be willing to provide more value to a SPAC than the amount of cash it will receive it return. Nonetheless, the net cash per share in the SPAC remains material to evaluating the plausibility of a target exchanging more than $10 in

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10. As we explain in detail below, we define net cash per share to mean the amount of cash a SPAC holds minus merger-related costs minus the value of warrants divided by shares outstanding. In the pre-merger calculation, we subtract redeemed shares from shares outstanding and add shares issued in PIPEs (even though those shares are issued concurrently with the merger). A post-merger calculation, which we explain below is an incorrect way to measure dilution, would include all shares outstanding of the combined post-merger company, including shares issued to shareholders of the target.


12. The transaction cost of alternative transactions will also affect how much extra value a target may exchange for a SPAC share worth $6 in cash. If a target company is considering an IPO, it may be willing to exchange value worth the net cash in the SPAC plus the value of transaction costs it anticipates from an IPO.
value for a SPAC share with much less than $10 in net cash. If a SPAC’s board believes there are other sources of value and that, as a result, the SPAC shareholders will receive more than the net cash per share that they contribute to a merger, then the SPAC should explain this in its proxy statement.

Requiring SPACs to disclose net cash per share would bring SPAC disclosure in line with requirements for other investment products, particularly mutual funds and ETFs. Investors in those products receive a clear disclosure of the percentage of their funds that will be extracted in fees and expenses, and how much of their cash will be invested. The dilution and dissipation of cash in SPACs is no different from fees and expenses in mutual funds and ETFs. The sponsor’s promote is an in-kind fee. The warrants issued to IPO investors are in effect a fee paid to IPO investors that prop a SPAC up temporarily as a public company so that it can bring a target company public through a merger. The fact that this fee is paid in warrants, rather than cash, does not make it any less an expense of the SPAC, nor does it make it any less likely that the target will take it into account when negotiating a merger. Treating SPAC warrants as a fee would also be consistent with the approach taken in IPOs, where warrants issued as compensation to underwriters must be valued in dollar terms. Finally, underwriting fees and financial advisor fees are conventional fees that the sponsor pays for services it subcontracts to other financial professionals.

C. Measurement of Net Cash Per Share: What is the Right Denominator?

Some SPAC sponsors and promoters claim that the reduction in a SPAC’s net cash per share is irrelevant to SPAC shareholders because SPACs often merge with much larger companies and therefore, they claim, the dilution of SPAC equity value and the dissipation of cash is a small fraction of the combined company’s value. This claim reflects a misunderstanding of how dilution and

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13. To be clear, we take no position on the question of whether SPACs qualify as investment companies under the definitions in the Investment Company Act.


15. See Sober Look, supra note 2, at 242-46.

16. Since the warrants become obligations of the target, one would expect that targets will take account of their cost in negotiating a share exchange with a SPAC, and agree to provide less value in exchange for a SPAC share than if there were no outstanding warrants. Our empirical research supports this theory. See supra note 2.

17. See FIN. INDUS. REGULATORY AUTH., FINRA MANUAL, RULE 5110, at Supplemen
tary Material .05 (2020).

dissipation of cash affect SPAC shareholders. As we have explained, one would expect the amount of net cash underlying a SPAC share to be substantially related to the value a SPAC shareholder will receive when it exchanges that share for a share in the target. We found empirical support for this logic in our earlier study.\(^{19}\) The size of the target company is irrelevant to what the SPAC shareholder will receive. If there is $5 of cash per share in a SPAC, that share would be expected to buy about $5 worth of target shares in a merger, regardless of whether the target is worth $100 million or $10 billion.\(^{20}\)

II. What Do SPACs Disclose?

In their proxy statements issued in connection with their merger, SPACs state directly or indirectly that the parties to the merger agreement have valued the SPAC shares at $10 in the exchange for target shares.\(^{21}\) In addition, however, at various points throughout their proxy statements, SPACs disclose elements of the deal that reduce their share value below $10, including the number of shares in the sponsor’s promote, the number of warrants outstanding at the time of the merger, merger-related fees, and in some SPACs other sources of dilution. SPACs do not, however, disclose the extent to which these elements of the SPAC structure or terms of merger-related transactions reduce the amount of net cash underlying their shares. Thus, to the extent SPACs’ proxy statements purport to disclose the value of SPAC shares, they are wrong, contradictory, and incomplete.

SPACs’ proxy statements generally disclose fees, but they vary in their clarity and completeness. They rarely break out the amounts paid to specific advisors or disclose what services were received in exchange for these payments. In addition, some proxy statements separately disclose advisory fees that targets that are at least two to three times the size of the SPAC in order to mitigate the dilutive impact of the 20% founder shares.”); Connie Loizos, *Almost Everything You Need to Know About SPACs, TECH CRUNCH* (Aug. 22, 2020) (“In fact, it’s typical for a SPAC to combine with a company that’s two to four times its IPO proceeds in order to reduce the dilutive impact of the founder shares and warrants.”); Chris Weekes, *SPAC Roundtable Series, COWEN & CO.* (Feb. 26 2020), https://www.cowen.com/insights/spacs-now-part-of-conversation-with-most-companies-seeking-public-listing/ \([https://perma.cc/VM75-27WZ]\) (“These days, the average enterprise value to SPAC IPO proceeds is about 3.5 times. It’s simply an exercise in determining the dilutive impact of the sponsor shares to the merger. If you have a $200 million SPAC and you find a business to buy that is $200 million of enterprise value, your $50 million of sponsor shares will be quite dilutive.”).

20. Conversely, if the target shareholders were to bear the costs embedded in the SPAC, the size of the SPAC would be irrelevant. The SPAC’s costs would be borne by the target shareholders in proportion to their ownership of target equity.
21. For instance, 890 5th Avenue Partners, a SPAC that merged with BuzzFeed in December 2021, stated in its proxy that “‘890 Stock Price’ means $10.00.” 890 5th Ave. Partners, Inc., Prospectus (Form 424(b)(3)) (Nov. 12, 2021). For an indirect statement, see the merger between the SPAC HealthCor Catalio Acquisition Corp. and Hyperfine, Inc. Healthcor Catalio Acquisition Corp., Prospectus (Form 424(b)(3)) (Nov. 26, 2021). In the 424(b)(3) filing from November 26, 2021 the merger agreement specifies that the target company’s owners will receive a number of SPAC shares equal to “the quotient determined by dividing (i) the Hyperfine Valuation by (ii) $10.00.” Id. For further discussion, see infra Appendix D.
pay, but many do not. Regardless of whether a SPAC or its target pays the target’s fees, those fees reduce the amount of cash contributed to the combined company just as the SPAC’s fees do. To the extent a proxy statement discloses merger-related fees, their disclosures are often scattered across the proxy statement, and presented in an ambiguous way that makes it difficult to discern a single figure for total fees paid. A shareholder is left to pull the information together and to compute, as best it can, what total costs are and what services the shareholders have received in return for these expenditures.

In sum, what is lacking is full disclosure of the cost of a SPAC’s promote, warrants, merger-related fees, and other elements of a merger, and how these costs combine to reduce a SPAC’s net cash per share to a specific dollar amount. This omission is compounded by statements to the effect that the value of a SPAC share is $10. Proxy statements also fail to explain to shareholders the implication of there being significantly less than $10 of net cash per share in the SPAC. Namely, that the target company can reasonably be expected to exchange an amount of value roughly equal to the cash it will receive from the SPAC—that is, less than $10 per share in value. Finally, proxy statements do not explain how redemptions will further reduce net cash per share.

III. Calculating Net Cash per Share

A. The Basic Calculation

Net cash per share is calculated as follows:

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\text{Net Cash per Share} = \frac{\text{Total Cash} - \text{Cash Expenses} - \text{Value of Warrants} - \text{Value of Other Equity Derivatives}}{\text{Public Shares + Founder Shares + PIPE/FPA Shares + Other Shares + Shares Issuable Under Rights}}
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Because the first elements of both the numerator and denominator of this equation—cash from SPAC public shareholders and public shares outstanding—are unreported, or whether total fees disclosed include target costs.

23. **Sober Look**, supra note 2, at 260-63. Some misunderstand the economics of SPAC mergers and believe, for instance, that the owners of a target company will be disappointed if share price is below $10 following a merger, and thus will work to structure the merger to avoid this. Yet, what matters to a target’s owners is share price times the number of shares they receive in a merger. Target owners that receive 100 million shares worth $5 each are just as well off as target owners that receive 50 million shares worth $10 each. As we show in our research, owners of target companies tend to demand more shares for themselves in mergers with SPACs with low cash per share, thereby insulating them from the dilution that comes from the SPAC’s costs. In other words, target owners give up a smaller fraction of their company to each SPAC shareholder, the less cash per share the SPAC has.

24. A few SPAC deals include other types of securities, such as preferred shares, that may be convertible into common shares according to set terms and formulae. In such instances, the SEC should require that SPACs account for the impact of these on cash per share using standard accounting procedures. See infra Section III-A(1)(b)(iv).
depend on the number of shares redeemed, disclosure of net cash per share must be presented in a contingent form. That is, a SPAC must disclose the results of this calculation assuming no redemptions and assuming specified levels of redemptions—for example, 0%, 25%, 50%, 75%, and 90%. This is not very different from the way SPACs present pro forma financial statements, which are typically presented under two scenarios: no redemptions, and a stated level of redemptions.

Because net cash per share should be central to a shareholder’s evaluation of a proposed merger, the results of these calculations should be included in the summary of the proxy statement. SPACs should also disclose their best available estimate of net cash per share at the time they announce their mergers, since this is when many investors will make a decision whether to buy shares in the SPAC. Finally, in filings made after their mergers, SPACs should include the actual net cash per share delivered, given actual redemptions and final accounts of costs.

The following discussion explains each element of the calculation. At the end we suggest a way of presenting the results of the calculation contingent on specified levels of redemption.

1. The Numerator: Net Cash
   a. Total Cash
      i. *Cash Invested by SPAC Public Shareholders.* The first component of total cash is simply the IPO proceeds and accrued interest, which is held in trust for SPAC public shareholders and the SPAC. As discussed below, some of this cash may be depleted by redemptions at the time of the merger.

      ii. *Cash Invested by PIPE Investors or FPA Providers.* The second component is any additional cash raised through a PIPE, Forward Purchase Agreement (FPA) or similar common stock investment concurrently with the SPAC’s merger. It does not include cash raised from debt or preferred stock because the amount of cash raised generally corresponds to an offsetting liability or liquidation preference. If the debt or preferred stock is convertible into common equity, however, the dilution resulting from the embedded equity derivative represents an expense that reduces net

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25. Some SPAC sponsors contribute additional money to the SPAC trust in order to create a more generous redemption right. Where this occurs, it would be included in total cash as well.

26. A forward purchase agreement is an agreement made at the time of the SPAC’s IPO to invest in a PIPE when the SPAC merges. Sponsors and third-party investors make these commitments.
cash. We address this below.

b. Cash Expenses

i. **Deferred Underwriting Fee.** SPAC underwriters generally charge an initial fee and an additional deferred fee contingent on completion of the merger. Any deferred underwriting fee from the SPAC’s IPO should be subtracted from cash. The initial underwriting fee is paid out of proceeds from selling warrants or units to the SPAC sponsor at the time of the SPAC’s IPO. The impact of this will therefore already be reflected in total cash (Item 1(a), supra). The deferred underwriting fee is paid out of cash in the trust at the time of the merger, or out of the post-merger company’s assets, and thus should be separately accounted for.

ii. **Additional Merger-Related Fees.** In addition to deferred underwriting fees, many SPACs pay financial advisory fees and other fees in connection with their merger. All merger-related fees should be treated as an expense and subtracted from total cash. Some SPACs pay advisory fees to parties affiliated with the sponsor (such as in SPACs affiliated with Churchill Capital), which has implications beyond mere cost; some pay fees to the IPO underwriter or an affiliate of the underwriter in addition to the underwriting fee; and some pay fees to additional advisors that are typically unidentified. In addition, the target pays fees to its own advisers, auditors and other third parties. SPACs often pay the merger-related fees of the target. But even if the SPAC does not explicitly pay the target’s fees, those fees come out of the assets of the combined company and, as such, there is no functional difference in whether SPAC or target pays a given transaction expense. Target fees, therefore, must be included in the net-cash-per-share calculation. In addition to disclosing the total amount of these fees, a SPAC should provide a reasonably itemized calculation.

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27. In other words, there is no need for a further deduction from the numerator in order to account for the up-front underwriting fee.

28. In some instances, an underwriter (or other financial advisor to a merger) will take its compensation in share or warrants, rather than cash. In such instances, the shares and warrants should be factored in to cash per share in the same way sponsor shares and warrants are, as described in Items 1(a)(i) and 1(a)(ii), supra.


30. In the event these advisors are compensated with shares, those shares would be added to the denominator for net cash per share. In the event these advisors are compensated with warrants or other securities, those securities would be valued according to standard accounting practices and subtracted from the numerator, consistent with the treatment of other warrants described below.
breakdown of different merger-related fees and the parties providing services for those fees.

iii. *Value of Warrants.* Nearly all SPACs issue warrants to the public in their IPO. In addition, SPACs typically issue warrants to sponsors in exchange for the sponsor’s initial investment, which covers the initial underwriting fee and other pre-merger expenses. Some SPACs also issue warrants to underwriters, PIPE investors and others. All warrants should be valued using standard accounting methodologies as of the day before the merger’s announcement, and their aggregate value should be subtracted from total cash. This is consistent with most SPACs’ accounting treatment of warrants as a liability. To ensure comparability across different SPACs, however, we propose subtracting the value of the warrants even when they are structured to avoid liability treatment under GAAP.

iv. *Value of Other Equity Derivatives.* Some SPACs issue convertible debt or convertible preferred stock in private placements concurrently with a merger. The debt or preferred stock itself is not dilutive and should not be included in the SPAC’s net cash-per-share calculation, but the embedded option that allows the holder to convert the debt or preferred stock into shares at a pre-specified conversion price should be included. That option should be valued according to standard accounting practices, and the

31. More recent SPACs have also begun to issue yet more warrants to SPAC sponsors. Many SPACs now contain provisions that enable the sponsor to extend a SPAC’s deadline for finding a target, without the need for a shareholder vote, provided the sponsor contributes additional cash to the SPAC trust in order to make the redemption price more lucrative for investors who exit at the time of the initial merger. In exchange for these cash contributions, sponsors receive yet more warrants. See, e.g., FoxWayne Enterprise Acquisition Corp., Prospectus (Form 424(b)(4) (Jan. 21, 2021).

32. Alternatively, SPACs could be required to disclose the value of warrants at the time their proxy statement is filed. This would reflect the market’s valuation of the warrants’ dilution. But it is not clear that this post-announcement value is sufficiently foreseeable by the target to form the basis of its negotiation and hence the value SPAC shareholders will receive.

resulting value should be deducted from cash.34

2. The Denominator: Total Shares

This is the “per share” part of the cash-per-share calculation. Like net cash, calculating this is straightforward. It includes shares issued in the SPAC’s IPO, shares issued to the sponsor as its promote, shares (if any) issued to the sponsor in return for the sponsor’s initial investment, shares issued to PIPE investors, and any other shares issued up to the point of the merger. It does not include shares issued to target shareholders. Nor does it include shares underlying warrants or other equity derivatives. The calculation captures the dilution resulting from warrants and other equity derivatives by subtracting the value of those derivatives in the net cash numerator.

a. Founder Shares

i. Promote. SPACs are near-uniform in providing sponsors with promotes totaling 20% of post-IPO equity, but some provide more or less than 20%.35 Some SPACs also provide “anti-dilution” protection to sponsors by giving them the right to an additional 20% of newly raised PIPE equity at the time of a merger. Typically, however, sponsors waive their right to some or all these additional shares, though in some cases they do so in exchange for additional shares.36 In addition, in some mergers, SPAC sponsors agree to cancel some of their shares. Any of these adjustments in the sponsor’s shareholdings should be disclosed and reflected in the total share count for purposes of this calculation.37

ii. Sponsor “Earnouts.” In some mergers, sponsors agree to an “earnout” under which some of their shares (typically 30-40%) only vest if the share price of the post-merger company meets specified thresholds—commonly, tiered at $12.50, $15.00, and $17.50. Earnouts generally have terms of five or more years, and their price thresholds are not market-adjusted. As we show in other

34. Since this proposal only relates to SPACs, we are not including derivative securities or stock-based compensation of target employees. Those are covered by existing disclosure regulations.

35. For example, Athena Consumer Acquisition Corp. provided its sponsors with roughly 25% of post-IPO equity. Athena Tech. Acquisition Corp., Prospectus (Form 424(b)(4)) (Mar. 18, 2021). Hamilton Lane Alliance Holdings I, Inc. provided its sponsor with roughly 15% of post-IPO equity. Hamilton Lane All. Holdings I, Inc., Prospectus (Form 424(b)(4)) (Jan. 12, 2021).

36. For instance, Athena Technology Acquisition Corp., which merged with Heliogen, granted its sponsor 510,000 additional shares in consideration for waiving its antidilution rights. Athena Technology Acquisition Corp., Prospectus (Form 424(b)(3)) (Dec. 3, 2021).

37. Sponsors often transfer some of their shares to directors and officers. Some also transfer shares to PIPE investors but as discussed below these transfers are often not disclosed. Although these transfers reduce a sponsor’s profits, they do not reduce dilution.
Net Cash Per Share: The Key to Disclosing SPAC Dilution

research, these features, in combination with the typically high volatility of post-merger SPACs, make earnouts nearly inconsequential in terms of reducing the value of a sponsor’s interest, and hence have a minimal impact on dilution. Sponsor shares subject to earnouts are in effect derivative securities whose value to the sponsor should be calculated using the same methodologies that public companies, including post-merger SPACs, use to report similar securities. If an earnout reduces the value of a portion of a sponsor’s shares by 10% compared to the value of unrestricted shares (which we find is typical given the terms of earnout agreements), then a SPAC should reduce by 10% the amount by which those sponsor shares contribute to the denominator of the cash per share computation.

iii. Rights. Some SPACs include rights in the units they sell in their IPO—typically a right to acquire 1/10 of a share and occasionally a right to acquire 1/20 of a share. These rights are exercisable after a merger and require no payment from the holder. So, they simply amount to a fraction of a share. The total number of rights multiplied by that fraction should be added to the share count in the denominator.

B. Presenting Net Cash Per Share Contingent on Possible Levels of Redemption

Redemptions reduce cash received from public shareholders and the number of public shares outstanding. The result tends to be a reduction in net cash per share—fewer shares over which SPAC costs are spread. A SPAC should disclose the results of its net cash per share calculation under alternative redemption scenarios—for example, scenarios in which zero, 25%, 50%, 75% and 90% of public shares are redeemed.

38. See Michael Klausner & Michael Ohlrogge, Is SPAC Sponsor Compensation Evolving? A Sober Look at Earnouts (Stanford L. and Econ. Olin Working Paper No. 567) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4022611 [https://perma.cc/4739-9TE9]. We find that post-merger SPAC performance tends toward extremes. Most commonly, performance is poor and the impact of an earnout is the cancelation of shares that are worth little. In a few cases, the thresholds are met, and the sponsor receives its shares. Overall, therefore, the impact of an earnout on a promote is not substantial.

39. For an example of a post-merger SPAC target disclosing the value of sponsor earnout shares, see Origin Materials, Inc., (Form 424(b)(3) (Aug. 16, 2021) (“Earnout liability was fair valued using a Monte Carlo open-ended model. The inputs used for the model were a dividend yield of 0%, volatility of 63%, and interest rate of 0.87%.”)

40. For example, if there are 100 sponsor shares and 30 of them are subject to an earnout that reduces their value by 10%, then the total number of sponsor shares included in the denominator would be 70 + (30 x 0.9) = 70 + 27 = 97.
The table at the end of Section C illustrates how redemption-contingent net cash per share could be disclosed.

C. Example

To illustrate the computation and presentation of net cash per share, assume the following scenario, which is based on average characteristics of recent SPACs. Assume a SPAC sold 80 units in its IPO, each consisting of a share and one half of a warrant, resulting in 80 public shares and 40 public warrants outstanding. The sponsor received 20 founder shares for a promote in the IPO, but cancelled 2 at the time of the merger, yielding a net promote of 18 founder shares. The sponsor purchased 20 warrants at the time of the IPO, which covered the initial underwriting costs plus SPAC expenses during the search for a target. We assume the valuation of the warrants, using standard accounting methods, is $1. Forty additional shares are sold in a PIPE for $10 each and total fees (deferred underwriting fees plus financial advisors’, accounting, and legal fees) for the deal are $100.

For the numerator of net cash per share, this scenario yields, in the case of zero redemptions, net cash of $1,040 ($800 from the IPO plus $400 from the PIPE, minus $100 in fees, minus $60 from the value of the warrants). For the denominator of net cash per share, this scenario yields, in the case of zero redemptions, a total of 138 pre-merger shares (80 public shares from the IPO, 18 founder shares from the promote, and 40 additional shares from the PIPE). These are all the shares the SPAC issues other than those issued as merger consideration to shareholders of the target. Together this results in $1,040 / 138 = $7.54 in net cash per share in the zero-redemption scenario.

The following table shows net cash per share contingent on alternative redemption levels.

<table>
<thead>
<tr>
<th>Redemptions</th>
<th>0%</th>
<th>10%</th>
<th>25%</th>
<th>50%</th>
<th>75%</th>
<th>90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Cash per Share</td>
<td>$7.54</td>
<td>$7.38</td>
<td>$7.12</td>
<td>$6.53</td>
<td>$5.64</td>
<td>$4.85</td>
</tr>
</tbody>
</table>

IV. Conclusion

At present, SPACs’ proxy statements do a poor job of disclosing the extent to which a SPAC will have diluted shareholder equity and dissipated cash as of the time its merger. In our view, mandating transparency to fix this shortcoming is among the most important elements of the SEC’s proposal. This would entail requiring SPACs to disclose the net cash per share that they expect to hold as of the time of a proposed merger. Because net cash per share depends on the extent

41. We document these averages in recent SPACs in the postscript to *Sober Look, supra* note 2, at 252.
to which shareholders redeem their shares, which is not known at the time the proxy statement is issued, SPACs must disclose net cash per share at multiple levels of hypothetical redemptions. This Essay has provided a framework through which this can be done.
Appendix: Frequently Asked Questions on Net Cash per Share Disclosures:

In the course of discussing net cash per share disclosure with market participants and commentators, we have received a number of questions. This section of the paper provides answers to the most common questions.

A. Will it be costly for a SPAC to disclose this information?

No. This information is readily available to a SPAC’s management and sponsor, and the calculations involved are no more complex than calculations necessary for other disclosures that SPACs make at the time of a merger and in ongoing filings with the SEC after the merger.

B. Why is it more important to disclose net cash per share at the time of a merger than at the time of a SPAC’s IPO?

A SPAC shareholder makes its investment decision at the time of the SPAC’s merger—by either redeeming its shares or investing in the merger. It is that decision that must be well informed. Because net cash per share changes substantially from the time of a SPAC’s IPO until its merger, disclosure at the time of the IPO does not inform the shareholder’s redemption decision. Consequently, even if net cash per share is disclosed in an IPO prospectus, that information will have to be updated in the merger proxy.

C. How does net cash per share at the time of a merger relate to the value a SPAC shareholder can expect a share of the post-merger company to be worth?

SPACs and their targets typically treat a SPAC share as being worth $10 in their merger agreements. Target shareholders, however, presumably know that the shares they will receive do not have underlying cash of $10. That is, they can see that, at $10 per share, the SPAC is overvalued—at least with respect to the cash it will provide to the combined company. Unless the target envisions non-cash value in the merger, one would expect the target to inflate its value commensurately with the inflation in the SPAC shares. In practice, a SPAC and a target negotiate a merger by coming to an agreement on the valuation of the target, not directly on a share exchange. To match the inflation in the value of the SPAC’s shares, therefore, one would expect target shareholders to inflate the value of the target. For example, if there is $5 of net cash per share in the SPAC, the target would negotiate a valuation that is two times its actual valuation. The SPAC may try to negotiate that valuation downward, and it may convince the target shareholders that they will reap value other than cash from the merger, but
our research has shown that, on average, targets succeed in counteracting the inflation of SPAC share values.42

D. If the raw data for computing net cash per share is already disclosed, why should net cash per share be disclosed?

First, it is often unclear whether a SPAC has disclosed all data necessary to calculate net cash per share. SPACs vary in the extent to which they disclose elements of dilution and dissipated cash. SPACs also vary in the clarity with which they disclose this information. Even if a shareholder scours a proxy statement to piece together an estimate of net cash per share, the shareholder will never know whether it has succeeded. One could well turn this question around: why would a SPAC object to disclosing this information in an integrated form so that shareholders can readily see how much cash they would be investing in a merger? Asking SPACs to provide this information in an integrated and authoritative form will eliminate uncertainty and help avoid situations in which information may be missing. The SEC has a history of requiring clear and simple disclosure of costs for mutual funds and ETFs.43 This proposal would bring SPACs in line with those precedents.

In addition to saving investors the trouble of searching for the data, performing the calculations, and wondering whether they have found all relevant information, the disclosure we propose would also alert shareholders to the importance of net cash per share as it relates to what they should expect to receive in exchange for investing in a merger. It may also have the salutary effect of inducing SPAC management and sponsors to be less profligate in diluting and dissipating the SPAC shareholders’ equity.

The historically poor market-adjusted performance of post-merger SPACs, and the failure of SPAC sponsors to respond to this poor performance by making the SPAC structure more favorable to non-redeeming shareholders, suggests that current disclosure practice is inadequate.44

E. Why is pre-merger net cash per share the right way to measure dilution rather than post-merger net cash per share?

Pre-merger net cash per share is the amount of net cash a non-redeeming SPAC shareholder will invest in a target. This is the proper approach to analyzing how much value the shareholder can expect to receive from the target in return. The size of the target company, or the post-merger combined company, is irrelevant to that analysis. There is no reason to believe that $6.00 invested in a

42. Sober Look, supra note 2, at 260-63. We make this inference based on our finding of a high correlation between net cash per share at the time of a merger and post-merger share value.
43. See supra note 14.
44. Id. at 260 fig. 9.
large company will become more valuable than $6.00 invested in a small company.

This is not to say that the SPAC management or sponsor will contribute no value other than cash to a merger. Their continued involvement with the combined company may provide value, and perhaps this value may be greater for a larger target company. We therefore propose that a SPAC disclose its estimate of such value in addition to, and separately from, the disclosure of net cash per share. The fact that a sponsor’s skill *may* in some instances help dig the SPAC out of the hole created by SPAC costs is no reason withhold from shareholders the size of that hole.

**F.** Some SPACs do not explicitly say that pre-merger SPAC shares *are* worth $10 per share. They instead say the parties *treated* SPAC shares as being worth $10 in the merger agreement. The pre-merger share price is commonly used in non-SPAC mergers to establish transaction terms. What is wrong with using it the same way in SPAC mergers?

In ordinary mergers, parties often agree to use “unaffected” share prices for purposes of arriving at the terms of a share exchange. An unaffected price is the price of a share prior to the announcement of a merger that is unaffected by the prospect of the merger. This practice may appear similar to the use of a $10 valuation of a SPAC share in a SPAC merger agreement, and the reflection of that valuation in a SPAC proxy, but a SPAC merger is different from an ordinary merger in ways that make the use of a $10 valuation deceptive.

In an ordinary merger, an acquiror’s unaffected price is the market’s pre-merger valuation of a share without giving effect to any synergies or other expected benefits from the merger. It is a measure of the value that a party to the merger will contribute, on a per-share basis, to the post-merger company in a share exchange. In contrast, a pre-merger SPAC share is worth about $10 in the market because it can be redeemed for about $10. This price does not reflect the value of what the SPAC will contribute to the merger. The market’s valuation of the SPAC share at $10 means only that the market does not value the SPAC’s prospects at greater than the $10 redemption price. On average, if the market values a pre-merger share at $10, that share is actually worth less than $10. Valuing a SPAC share at $10 for purposes of determining the terms of a share exchange (or the target’s value), therefore, reflects a substantial overstatement of the pre-merger value of a SPAC share, which is the SPAC’s net cash.

**G. Why do redemptions reduce net cash per share?**

The primary reason for redemptions reducing net cash per share is that most SPAC costs, such as the sponsor’s promote, the underwriter’s fees, warrants, do
Net Cash Per Share: The Key to Disclosing SPAC Dilution

not drop in proportion with redemptions. Thus, redemptions leave a diminished base of pre-merger shares to bear the SPAC’s largely fixed costs. For instance, consider the numerical example we present in the table above. With no redemptions, the SPAC has net cash of $1,040 and a total of 138 pre-merger shares, yielding net cash per share of $7.54. If 50% of the SPAC’s 80 public shareholders redeem, then the SPAC will lose $400 of cash, reducing the numerator by 38%. There will also be 40 fewer shares, reducing the denominator by 29%. Shrinking the cash proportionately more than the shares thus reduces the SPAC’s net cash per share from $7.54 to $6.53.

H. Warrants will only pay off for their holders if a SPAC’s share price rises above their exercise price. So, why should anyone be concerned about how many free warrants the SPAC gives away?

SPAC warrants typically have an $11.50 exercise price and a five-year term. So, they are “out of the money” when issued—they will pay out only if a SPAC’s price rises above $11.50 post-merger. Yet this does not mean the warrants have no value, nor does it mean that they have no dilutive impact on SPAC shareholders when a SPAC’s share price is below $11.50. Take, for example, the SPACs that merged in December 2021. The median trading price of their warrants was $1.00 prior to their merger announcements. Roughly speaking, that value reflected the probability that the shares of some of those SPACs would rise above $11.50 during the warrants’ 5-year term and pay off for their holders. To measure how much value the warrants siphoned away from shareholders, one would multiply this $1.00 times the number of warrants outstanding. For SPACs that merged in December 2021, the median deal had warrants worth about $17 million. Given that the median SPAC merger in December 2021 delivered $246 million in cash (after accounting for PIPEs and redemptions), the warrant value alone equaled about 6.9% of the cash that the median SPACs delivered. So, if those warrants had been sold for their fair value, rather than given away, there would be 6.9% more cash delivered for the same number of pre-merger SPAC shares.

45. A small number of SPAC merger agreements provide for sponsor shares or underwriting costs to be reduced in proportion to redemptions. Where this occurs, our proposed net cash per share disclosure would account for it (see above).

46. Four out of the twenty-five SPACs that merged in December 2021 had no warrants. The median value of warrants is the same, however, regardless of whether we exclude these SPACs, or treat their warrant values as zero.

47. This figure includes the value of both public warrants given to IPO-stage investors, as well as sponsor warrants, the proceeds of which are used to pay SPAC IPO and operating expenses. We value sponsor warrants at the same price as the trading price for the SPAC’s public warrants (though public warrants, unlike sponsor warrants, are redeemable when the underlying share reach a specified level, and are therefore somewhat less valuable). For those four SPACs without public warrants, we use the average public warrant price as an estimate for the value of the sponsor warrants. One SPAC, Aldel Financial Inc., also issued 12.9 million new warrants to PIPE investors as a way of reducing the effective price these investors paid for SPAC shares. We include the value of these warrants as well.
Modern finance has tools, such as the Black-Scholes formula, to value contingent instruments such as warrants, and trading prices for SPAC warrants tend to reflect this value. Accountants regularly use these tools to determine the value of warrants and other contingent instruments.