

WAGE WARS: THE BATTLE OVER HUMAN CAPITAL ACCOUNTING

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Over the past few decades, we have seen an explosion of so-called “human capital firms”—that is, firms that generate value due to the knowledge, skills, competencies, and attributes of their workforce. Yet, despite the value generated by employees, U.S. accounting principles provide virtually no information on firm labor. Barely fifteen percent of firms disclose information as basic as labor costs.

In today’s economy, human capital is likely the biggest asset missing from firms’ balance sheets. Human capital is omitted because employees are not assets for accounting purposes; after all, employees can leave the firm. Yet, the lack of disclosure on labor costs under accounting principles causes a significant gap in financial reporting for firms that are reliant on their employees. The lack of disclosure also leads to difficulty when valuing the growing number of loss firms; in 2020, for the first time, the number of public companies reporting a net loss exceeded the number of firms reporting a profit. These loss firms are valued based on future profitability, necessitating more information on labor and other operating costs.

In the absence of movement by accounting standard-setters, a series of human capital disclosures have sprung up in voluntarily-disclosed sustainability reports and under Regulation S-K. These disclosures have largely focused on metrics, however, and are not a substitute for disclosures under accounting standards. Moreover, as noted by prior literature, these disclosures lack consistency, comparability, and reliability. As an illustration, we collected all human capital disclosures for four European issuers and found that they collectively disclosed seventy different metrics; only one metric was disclosed by all four issuers.

*This Article argues that human capital should be integrated with accounting standards. First, we propose that labor costs be treated *pari passu* with research and development costs, meaning that labor costs be expensed for accounting purposes but disclosed. We propose a standardized grid to be disclosed in the notes to the financial statements. Second, we advocate that managers be required to discuss what portion of their labor costs should be considered an investment in future firm profitability. Finally, we argue that the income statement should be disaggregated to show what portion of major expenses are attributable to labor costs. These changes would not violate the accounting principle of conservatism but would allow investors to capitalize human capital in their own valuations, initiating the modernization of accounting principles.*

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INTRODUCTION

Firm leaders commonly refer to their employees as their greatest asset.¹ But U.S. Generally Accepted Accounting Principles (GAAP) treat labor as a “human expense”—not an asset. Barely fifteen percent of U.S. firms disclose something as basic as compensation or labor costs.² Human capital (defined as the knowledge, skills, competencies, and attributes of the

¹ See, e.g., *Reinventing Microsoft's Employee Experience for a Hybrid World*, MICROSOFT (Feb. 3, 2022), <https://www.microsoft.com/en-us/insidetrack/reinventing-the-employee-experience-at-microsoft>.

² Shivaram Rajgopal, *Labor Costs Are the Most Pressing Human Capital Disclosure the SEC Should Consider Mandating*, FORBES (May 17, 2021, 12:40 PM), <https://www.forbes.com/sites/shivaramrajgopal/2021/05/17/labor-costs-are-the-most-pressing-human-capital-disclosure-the-sec-should-consider-mandating/?sh=15634f3d5192>.

workforce that enable the firm to earn higher operating and stock-based returns³ is perhaps the largest unrecognized asset on firms' balance sheets.⁴ It is also a central element of the "Social" in Environmental, Social, and Governance (ESG) investing. Yet, because human capital is an intangible asset, it is generally omitted from the balance sheet.

Stated broadly, internally developed intangible assets such as intellectual property and human capital are typically valued at zero dollars on a firm's balance sheet. This leads to inconsistent accounting treatment for different types of investment. Consider four ways a firm can invest in its future. First, the firm can purchase tangible assets (i.e., property, plant, and equipment, or PPE). Second, it can acquire another firm or part of another firm. Third, it can invest in research and development (R&D). Fourth, it can invest in its employees. At present, accounting standards treat each of these investments differently, arguably creating different incentives for firms to invest in each activity and providing investors with different levels of visibility into each type of investment. For example, a firm that invests in physical property will record that property as an asset on its balance sheet, and the cost of that property only reduces net income as the property is depreciated over that property's assumed useful life. By contrast, a firm that invests in R&D will be required to expense the vast majority of those costs in the period in which they are incurred.

The accounting rules for R&D have been subject to extensive criticism, as commentators have argued that the requirement to expense R&D (and the resulting immediate decline in net income caused by that expense) disincentivizes R&D activities.⁵ However, there has been virtual silence over the similar treatment of human capital.⁶ In fact, the accounting treatment of investment in human capital is worse than that of R&D: R&D costs are at least disclosed, while labor costs typically are not.

As we describe, GAAP's approach to accounting for intangibles, particularly human capital, is becoming increasingly problematic for two reasons. First, the twenty-first century has seen the growth of the human capital firm. Because many of the largest industries and firms now rely heavily on skilled labor, the value of that labor is an increasingly important element of firm value. The prevalence of human capital firms and industries reflects a change from the mid-1930s, when the first accounting standard-setter was

³ Shivaram Rajgopal, *How to Measure Corporate Human Capital?*, FORBES (Oct. 9, 2021, 9:26 AM), <https://www.forbes.com/sites/shivaramrajgopal/2021/10/09/how-to-measure-corporate-human-capital>.

⁴ More generally, there are concerns that accounting rules have failed to adapt to changes in issuers. See Rana Foroohar, *Big Tech Is Playing a Financial Shell Game*, FIN. TIMES (Dec. 12, 2021), <https://www.ft.com/content/99ca12c5-498e-4ee4-8046-a27cd0a1038b>.

⁵ See *infra* note 137 and surrounding text.

⁶ But see Ethan Rouen, *The Problem with Accounting for Employees as Costs Instead of Assets*, HARV. BUS. REV. (Oct. 17, 2019), <https://hbr.org/2019/10/the-problem-with-accounting-for-employees-as-costs-instead-of-assets>.

created. Two of the largest industries in 2020, information technology and healthcare, did not even exist in their current form in that era.

Second, an increasing number of public companies now record a net loss. In 2020, more than half of U.S. public companies reported negative earnings.⁷ These firms are valued based on projected future value, but accounting standards largely obscure the cost structure for these firms. Without detailed information on operating costs, the most important of which is labor, investors are unable to predict future margins and to determine what portion of expenses reflect investment. This makes it difficult, if not impossible, to reliably value these firms, or to stress-test the market's valuations of a firm using fundamental analysis.

Of course, a reader may wonder why information on human capital management (HCM) is not already disclosed, if it is valuable to investors. If investors demand this information, the argument goes, firms will disclose it. Moreover, if it is material, it should already be disclosed under securities laws. As we describe, a limited amount of HCM information is disclosed under Regulation S-K⁸ and through voluntary sustainability reports. However, we argue that this information is insufficient. As explained by much prior work, these disclosures lack consistency, comparability, and reliability. Moreover, the disclosures to date have focused largely on HCM metrics (e.g., the percentage of women in supervisory positions). It is unclear how to incorporate these metrics in standard valuation models, even if the information is material. And these disclosures are highly varied: as an illustration, we collected HCM disclosures for four European issuers and found that these four issuers disclosed seventy different metrics. All four issuers disclosed only one metric in common.

We argue that HCM should be integrated with GAAP reporting. In particular, we propose three changes. First, we argue that HCM should be reported *pari passu* with R&D—in other words, that labor costs be expensed but disclosed. This approach would give investors the information they need to capitalize HCM on their own. We propose a standardized grid for inclusion in the notes to the financial statements to ensure that the information is consistent and reliable. Our proposed grid breaks down labor costs into broad categories such as salary, healthcare, stock options, and training costs, and requires disclosure of turnover and tenure rates. Turnover is arguably material on its own, and necessary for our approach as investors will need turnover rates to calculate amortization of labor costs. We propose providing this information for different categories of employees (for example, full-time and part-time), as tenure length is likely to vary by category, meaning that amortization rates will be less accurate if calculated without further breakdown.

⁷ See Part I.2.b. for our analysis showing this fact.

⁸ 17 C.F.R. § 229 (2020).

Of course, not all labor costs should be capitalized. Expenses should only be capitalized if they will provide future value to the firm. Some labor costs such as employee training costs are likely to provide future value, but other labor costs such as hourly wages are not. Investors are likely to have difficulty differentiating. As such, our second proposal is that managers should be required to discuss HCM in the Management Discussion and Analysis (MD&A) section of the 10-K. In particular, managers should discuss what portion of labor costs reflect investment in the firm and will create future value.

Finally, our third proposal is that the income statement be disaggregated to reflect the amount of labor costs included in each line item such as Cost of Goods Sold (COGS); Selling, General and Administrative (SG&A); or R&D. As noted above, it is difficult for investors to value firms based on future profitability without further information on firm costs. The disaggregation we propose would be the first step in providing that information to investors. Further, such disaggregation will enable investors to assess how the firm's workforce is distributed by line item in the income statement—an important breakdown that will allow investors to better understand the skill set of the firm's employees and whether that function will create future value.

I. ACCOUNTING FOR LABOR AND MARKET DYNAMICS

This section begins with a discussion of accounting principles, as anyone seeking information on a firm's human capital is likely to begin with that firm's financial report. As we describe below, an investor who reviews financial statements for information on labor costs and other human capital measures is likely to be disappointed.⁹ Very little information is disclosed, and the rules governing accounting for investment are inconsistent, with different types of investment receiving different treatment. As we explain in the second section of this Part, these inconsistencies have become increasingly important due to two market trends: the rise of "human capital" firms and the growing prominence of loss firms.

A. *Overview of Current Accounting Standards*

Although a full discussion of accounting standards is beyond the scope of this Article, some accounting knowledge is necessary. Therefore, we begin with a brief introduction of accounting for the uninitiated. Thereafter, we discuss accounting for investment, highlighting how accounting treatment differs depending on the type of investment.

⁹ Current rules do not even mandate disclosure of total compensation costs, much less metrics such as average tenure of an employee with the firm, abnormal turnover, the entry and exit wage numbers, and so on. See Rajgopal, *supra* note 3.

1. Introduction to Accounting

There are three primary financial statements: the statement of cash flows, the income statement, and the balance sheet.¹⁰ Of these three, the statement of cash flows is the most intuitive; it presents cash inflows and outflows when the cash changes hands.¹¹

By contrast, the income statement reflects accrual-based earnings, meaning that revenue and expenses are recorded based on when the economic activity occurred, not when the cash changed hands.¹² This leads income statement earnings to be more persistent than net cash flows, as earnings on the income statement are tied to economic activity rather than to chronology of actual realization in cash flows. To appreciate this distinction, consider the following example. Assume a firm will pay its employee a pension in 2035 based on work performed in 2020. Accrual accounting would record an estimate of that pension expense in 2020, thus reducing net income in 2020. Cash-based accounting would not reflect that pension payment as an expense until 2035. Accrual accounting allows investors to better understand the company's economic margins, as revenues and expenses are matched in the same period (in this case, in the year 2020). However, accrual accounting necessarily relies on estimates that may ultimately be incorrect. Of course, adjustments are included for such assumptions, but the inherent discretion leads to concerns that accrual-based earnings may be more subject to manipulation (or unintentional error) than cash-based accounting.¹³

The third major financial statement is the balance sheet, which reflects the sum of the company's net assets at a particular point in time. It provides the firm's assets, the firm's liabilities, and the shareholders' equity. The shareholders' equity is, by definition, equal to the difference between total assets and total liabilities.¹⁴ Notably, assets are treated differently based on whether they are tangible assets purchased from a third party or internally developed intangible assets. In short, tangible assets are typically recorded at the historical purchase price and depreciated over their lifespan. By contrast, intangible assets that are developed internally, such as patents, are valued at zero (or close to zero).¹⁵ The intuition for this treatment is that, without an

¹⁰ PETER D. EASTON ET AL., FINANCIAL ACCOUNTING FOR MBAs 1-9 (8th ed. 2021).

¹¹ *Id.* at 1-15.

¹² *See id.* at 1-13, 1-15, 2-15 (explaining the timing differences between the statement of cash flows and the income statement).

¹³ *See, e.g., id.* at 1-17, 2-15 (describing the managerial discretion used in preparing financial statements).

¹⁴ *Id.* at 1-10.

¹⁵ *Id.* at 2-5–2-6. It is often possible to capitalize small amounts of the costs used to develop an intangible asset, such as lawyer fees for patents, but the majority of costs are expensed and not treated as an asset. *See U.S. Tax Court: Legal Expenses for FDA Approvals Capitalized, but Those for Defending Patent Infringement Suits Are Deductible*, KPMG (Apr. 27, 2021), <https://assets.kpmg/content/dam/kpmg/us/pdf/2021/04/21185.pdf>.

arm's length transaction to identify price, the value of the asset is too unreliable to record on the balance sheet.¹⁶ However, the practical application is two-fold: First, significant asset value is missing from the balance sheet, and second, that asset may be deemed immaterial by auditors and regulators, allowing firms to share next to nothing about internally-created intangible assets with their investors.¹⁷

2. Accounting for Investment

A natural consequence of the difference between accounting for tangible and intangible assets is that different types of investments are treated differently. Here we consider the accounting treatment depending on whether a firm invests through purchases of physical property, expenditures on R&D, acquisitions of other companies, or expenditures on its employees. We focus on the effect of these investments on the income statement and balance sheet.¹⁸

a. *Investment in Physical Property*

First, assume that a company uses cash to invest in physical property (for example, bulldozers). On the balance sheet, this purchase shows as a change in one type of net asset for another—that is, a decline in cash or increase in payables and a corresponding increase in PPE.¹⁹ On the income statement, the bulldozer does not reduce the company's net income in the current period. Instead, the decrease is pushed to future periods, as the expense associated with the purchase appears as depreciation expense during the periods the bulldozer is used.²⁰ Perhaps more important than the specific accounting treatment, the bulldozer is added to the company's PPE and the company is required to provide ongoing information about the value of its PPE in the notes to the financial statements.²¹ This approach is favorable to companies' reported income numbers, as the purchase is treated as an invest-

¹⁶ See EASTON ET AL., *supra* note 10, at 2-6. In theory, a company could have an internally developed tangible asset that is omitted from the balance sheet. However, in practice, internally developed assets that firms continue to use in the business are very disproportionately intangible assets. See Shivaram Rajgopal, *What's in SGA?*, FORBES (Aug. 2, 2021, 2:00 PM), <https://www.forbes.com/sites/shivaramrajgopal/2021/08/02/whats-in-sga/?sh=66978a75237d>.

¹⁷ See George S. Georgiev, *Too Big to Disclose: Firm Size and Materiality Blindspots in Securities Regulation*, 64 UCLA L. REV. 602, 617, 637-39 (2017); Shivaram Rajgopal, *Amazon Spends \$42 Billion on R&D but the 10K Discusses R&D in 300 Words*, FORBES (Mar. 8, 2021, 8:40 AM), <https://www.forbes.com/sites/shivaramrajgopal/2021/03/08/amazon-spends-42-billion-on-rd-but-devotes-less-than-300-words-of-disclosure-in-its-10k>.

¹⁸ There could be cash flow statement implications as well. For example, in theory, investments such as R&D and human capital could be included in investing cash flows rather than operating cash flows.

¹⁹ See EASTON ET AL., *supra* note 10, at 2-5.

²⁰ See *id.* at 2-13.

²¹ See FIN. ACCOUNTING STANDARDS BD., STATEMENT OF FINANCIAL ACCOUNTING STANDARDS No. 360-10 (1993), https://asc.fasb.org/viewpage?ovcmd=goto&codification_text=360-10&codification_submit=GO+TO (describing the accounting treatment and notes dis-

ment in the future rather than as an operating expense. It is also favorable to investors, as investors receive ongoing information about the company's physical property.

b. Investment in Research and Development

Second, assume that a company uses cash to invest in R&D (for example, research to produce a new drug or technology product). For the most part, companies are required to expense R&D costs under U.S. GAAP.²² On the income statement, this means that R&D expenses will reduce net income in the current period.²³ On the balance sheet, such expenses will cause a decline in total net assets (for example, a reduction in cash but no increase in another asset).²⁴ The difference in accounting for investment in R&D versus investment in physical property is driven by accounting conservatism, which permits companies to capitalize costs (meaning to recognize an asset) only when those costs can be directly linked to future cash inflows.²⁵ Because R&D activities may be unsuccessful, most of these costs are expensed.²⁶

However, even if the accounting treatment for R&D is less favorable than accounting for an investment in real property, this may not ultimately be a concern. R&D expenses are disclosed either in the financial statements and/or in the notes to the financial statements. Although the actual details of the projects undertaken by the firm and how the firm spends its R&D can be opaque to investors,²⁷ providing total R&D costs allows investors to incorporate R&D spending into their projections of future firm value. Research shows this information is value-relevant.²⁸ In sum, although investment in R&D yields less favorable accounting treatment than investment in real property, accounting rules nonetheless provide investors with value-relevant information. If one believes in efficient markets, the accounting treatment is irrelevant as long as the information itself is disclosed.

c. Investment through Acquisition

Third, assume that a company invests through acquisition. Broadly stated, the acquiring firm will determine the fair value of the assets and

closure requirements for PPE). As an example, see Costco Wholesale Corp., Annual Report (Form 10-K) 41–44 (Oct. 5, 2021).

²² See CONG. BUDGET OFF., CAPITALIZE RESEARCH AND EXPERIMENTATION COSTS AND AMORTIZE THEM OVER FIVE YEARS (2016), <https://www.cbo.gov/budget-options/2016/52272>.

²³ See EASTON ET AL., *supra* note 10, at 2–13.

²⁴ See *id.* at 2–6, 2–13.

²⁵ See *id.* at 2–3, 2–5–2–6.

²⁶ See *id.*; *Capitalizing R&D Expenses*, CORP. FIN. INST., <https://corporatefinanceinstitute.com/resources/knowledge/accounting/capitalizing-rd-expenses/> (last visited Dec. 27, 2021).

²⁷ See, e.g., Rajgopal, *supra* note 17.

²⁸ See Baruch Lev & Theodore Sougiannis, *The Capitalization, Amortization, and Value-Relevance of R&D*, 21 J. ACCT. & ECON. 107, 134 (1996) (finding that “firms’ R&D capital was found to be associated with subsequent stock returns”).

liabilities of the target firm and will recognize the target's assets and liabilities as its own. The difference between the fair value of the target's net book assets and the purchase price is treated as a combination of "goodwill" and identified intangible acquired assets such as trademarks, customer lists, and so on.²⁹ Goodwill is hugely important as a percentage of total assets. In 2018, firms had \$8 trillion in goodwill and \$14 trillion in physical assets.³⁰ The advantage of this approach is that firms must test goodwill for impairment annually, providing investors with an ongoing source of information.³¹ If the value of the goodwill has declined, the firm will provide an explanatory note to investors.³²

Interestingly, accounting for acquisition may capture human capital.³³ Imagine a technology firm pays \$400 million to purchase a software firm with 400 engineers but no other assets. In effect, the \$400 million to buy the software firm is a payment for human capital and is reflected as a goodwill asset on the acquirer's balance sheet.³⁴ However, even in this rare occurrence in which labor is captured on the balance sheet, the asset is not recorded as a human capital asset, and investors are provided with very little (if any) information on the underlying employees.

d. Investment in Labor

Finally, assume that a firm invests in training its employees or pays significant compensation to hire highly qualified employees. Similar to the treatment of R&D costs, this investment is treated entirely as an expense.³⁵ It reduces net income on the income statement in the period it occurs, and it reduces the firm's total net assets on the balance sheet. However, unlike R&D costs, firms need not disclose these costs.³⁶ This means that investors cannot determine the total amount that firms pay their employees,³⁷ even though research suggests this information is relevant to future stock performance.³⁸ In this regard, accounting for human capital lags significantly

²⁹ EASTON ET AL., *supra* note 10, at 9-21.

³⁰ *Disputes over Goodwill Can Seem Arcane*, ECONOMIST: SCHUMPETER (Aug. 30, 2018), <https://www-economist-com.stanford.idm.oclc.org/business/2018/08/30/disputes-over-goodwill-can-seem-arcane>.

³¹ EASTON ET AL., *supra* note 10, at 9-21.

³² *Id.* at 9-21-9-22.

³³ R&D costs may also be indirectly capitalized through acquisitions. Intangible assets such as patents that were developed by the target firm are capitalized as an asset in the acquirer's books. This is because the acquisition is supposedly executed at an arms-length transaction, providing an objective benchmark for the value of that asset.

³⁴ See INT'L VALUATION STANDARDS COUNCIL, IS GOODWILL A WASTING ASSET? (2021), <https://www.ivsc.org/wp-content/uploads/2021/09/IsGoodwillA WastingAsset-PerspectivePaper.pdf> (noting goodwill is typically not sufficiently disaggregated to allow for identification of the different assets that are included).

³⁵ Rouen, *supra* note 6.

³⁶ *Id.*

³⁷ Rajgopal, *supra* note 2.

³⁸ See, e.g., Andres Donangelo et al., *The Cross-Section of Labor Leverage and Equity Returns*, 132 J. FIN. ECON. 497, 499 (2019) (finding that firms that have relatively high labor

behind other types of investment. Not only do these investments receive less favorable accounting treatment, but the relevant information is typically not even disclosed.

Of course, there is a key difference between investments in employees and investments in physical property: employees can take their skilled labor and leave. Thus, accounting standards do not consider employees to be an ongoing source of value creation (that is, assets), explaining why none of the financial statements, nor the notes to the financial statements, are required to provide information that can be used to identify total labor costs.³⁹ On the income statement, labor costs are bundled into several different expenses rather than presented separately.⁴⁰ The cash flow statement is similarly opaque.⁴¹ Identifying labor costs from the balance sheet is also not feasible.⁴²

In sum, the accounting rules for investment are inconsistent. Investments in tangible property receive more favorable accounting treatment from a firm's perspective than internal investments in intangible property. Moreover, investments in employees are not disclosed, although investments in real property, acquisitions, and R&D are disclosed. These inconsistencies lead to a poor incentive structure from a labor perspective. For example, firms can receive "credit" for investing in a robot to replace a human job (this robot will be recorded as an asset on the balance sheet), but receive no such "credit" for investing in their employees' skills.

costs have higher expected returns); Ethan Rouen & Matthias Regier, *The Stock Market Value of Human Capital Creation* (Harv. Bus. Sch., Working Paper No. 21-047, 2020) (providing evidence that firms that invest in their employees have abnormally high returns going forward); Alex Edmans, *Does the Stock Market Fully Value Intangibles? Employee Satisfaction and Equity Prices*, 101 J. FIN. ECON. 621, 638 (2011) (finding that "firms with high levels of employee satisfaction generate superior long-horizon returns"); Lynn Rees & David M. Stott, *The Value-Relevance of Stock-Based Employee Compensation Disclosures*, 17 J. APPLIED BUS. RSCH. 105, 114 (2001) (finding that employee stock option expenses are related to firm value); Eli Amir & Gilad Livne, *Accounting for Human Capital When Labor Mobility is Restricted* 26-27 (Cass Bus. Sch. Rsch. Paper, 2000), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=202328 (suggesting that the incentives created by stock options provide value-increasing benefits to the firm).

³⁹ See Rouen, *supra* note 6.

⁴⁰ See EASTON ET AL., *supra* note 10, at 1-13 (describing COGS and SG&A Expenses); Amy Gallo, *Contribution Margin: What It Is, How to Calculate It, and Why You Need It*, HARV. BUS. REV. (Oct. 13, 2017), <https://hbr.org/2017/10/contribution-margin-what-it-is-how-to-calculate-it-and-why-you-need-it>. By contrast, European accounting standards require that firms disclose personnel expense. See IAS 19 *Employee Benefits*, IFRS, <https://www.ifrs.org/issued-standards/list-of-standards/ias-19-employee-benefits/> (last visited Dec. 10, 2021).

⁴¹ See Rouen, *supra* note 6.

⁴² See *id.* Employees are not assets as per GAAP, so would not be recorded on the asset side of the balance sheet, and labor costs are only reflected as liabilities when they have yet to be paid.

B. Changing Market Dynamics

Although the treatment of labor as purely an expense arguably made sense in a prior era, it is unworkable in today's environment.⁴³ As we describe below, there are two important market-wide trends that make disclosure of labor costs increasingly important. First, we have seen huge growth in "human capital" industries, notably information technology.⁴⁴ Second, an increasing number of firms are not profitable—in 2020, over fifty percent of publicly traded U.S. companies reported a net loss.⁴⁵ These firms, sometimes called "loss firms," are valued based on expected future profitability, but the current financial reporting system does not parse out a firm's cost structure into sufficient detail for investors to reliably estimate when these firms will become profitable. We discuss these trends below.

1. Growth of Human Capital Firms

In 1925, the era when the first private accounting standard-setter was created,⁴⁶ the largest industries in the S&P 500 were transportation (28.75%), energy (19.48%), consumer discretionary (17.08%), and industrials (10.53%). By 2020, the largest industries were information technology (25.10%), finance (14.89%), consumer discretionary (12.77%), and health-care (11.21%). These numbers are presented in Table 1 below.⁴⁷

⁴³ See, e.g., Alexandra Thornton & Caius Z. Willingham, Report, *It's Time for a Workforce Disclosure Reset*, CTR. FOR AM. PROGRESS (Aug. 23, 2021), <https://www.americanprogress.org/article/time-workforce-disclosure-reset/> (arguing that "[t]he current moment demands that the SEC add specific human capital metrics to its current disclosure regime").

⁴⁴ See Table 1.

⁴⁵ See Figure 2.

⁴⁶ Stephen Zeff, *Evolution of US Generally Accepted Accounting Principles (GAAP)*, <https://www.iasplus.com/en/binary/resource/0407zeffusgaap.pdf> (last visited Dec. 28, 2021).

⁴⁷ *GFD Indices - Market Capitalization*, GLOB. FIN. DATA, <https://globalfinancialdata.com/> (last visited Oct. 12, 2021) (to locate, filter "GFD Indices" for "Name: S&P 500 Pct," "Country of Incorporation: United States" and "Series Type: GFD Indices - Market Capitalization").

TABLE 1. TOP INDUSTRIES BY YEAR.

	Dec. 31, 1925	Dec. 31, 2020
Communications Market Cap	1.41%	7.73%
Consumer Discretionary Market Cap	17.08%	12.77%
Consumer Staples Market Cap	6.82%	8.73%
Energy Market Cap	19.48%	2.37%
Finance Market Cap	0.82%	14.89%
Health Care Discretionary Market Cap	0%	11.21%
Industrials Market Cap	10.53%	5.89%
Information Technology Market Cap	0.37%	25.1%
Materials Market Cap	5.53%	2.67%
Real Estate Market Cap	0.93%	1.08%
Transports Market Cap	28.75%	1.95%
Utilities & Telecommunications Market Cap	8.28%	5.6%

Most strikingly, Table 1 shows that two of the top four industries of 2020—information technology and healthcare, which jointly account for more than thirty-three percent of the current value of the S&P 500—did not exist in 1925. The growth in each industry is presented in more detail in Figure 1 below.

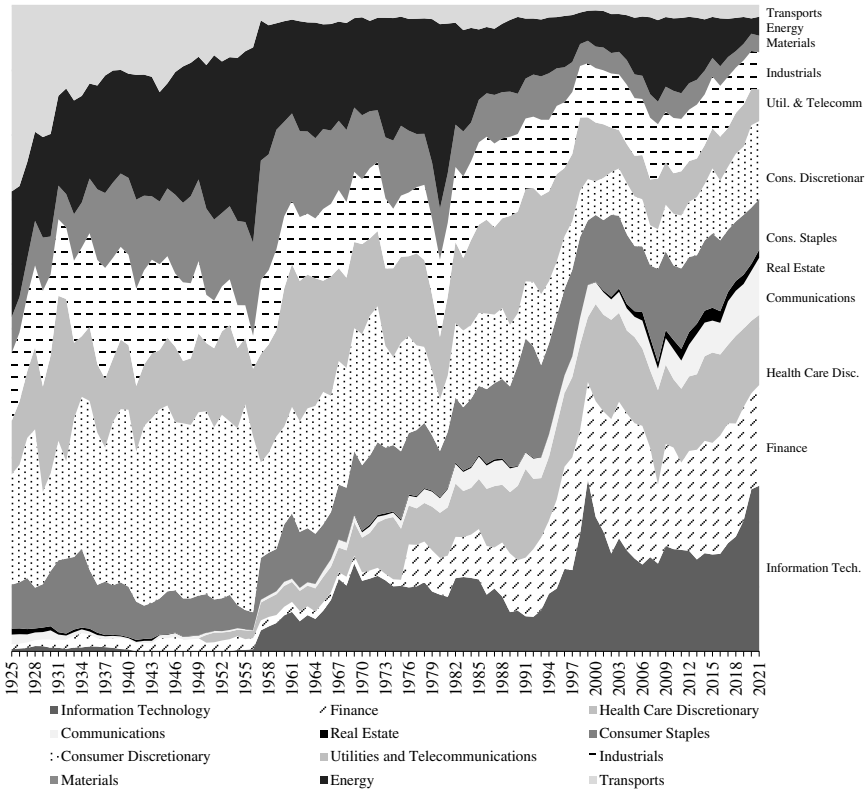


Figure 1. Percentage of Market Capitalization by Industry (S&P 500).

As shown, the bulk of the industries in 1925 were those that built, moved, and sold tangible products using tangible assets. By contrast, in 2020, two of the largest industries, healthcare and information technology, rely heavily on intangible assets such as intellectual property rights and highly skilled labor. Indeed, the seven biggest U.S. issuers today—Apple, Microsoft, Alphabet, Amazon, Tesla, Meta (Facebook), and NVIDIA⁴⁸—are technology-driven firms that generate value from internally-developed intangible assets.⁴⁹ Their competitive edge comes from the creation of usable, high-quality technology, software, and logistics services developed by a cadre of advanced engineers. To give some context for the magnitude of

⁴⁸ *Equity Screener*, YAHOO! FIN., <https://finance.yahoo.com/screener/new> (last visited Dec. 12, 2021) (to locate, filter for “Region is: United States” and sort by “Market Cap”).

⁴⁹ See, e.g., *Apple Inc. (AAPL): Profile*, YAHOO! FIN., <https://finance.yahoo.com/quote/AAPL/profile> (listing Apple’s sector as “Technology”); *Microsoft Corporation (MSFT): Profile*, YAHOO! FIN., <https://finance.yahoo.com/quote/MSFT/profile> (listing Microsoft’s sector as “Technology”).

growth in intangibles, the implied intangible asset value of the S&P 500 grew from an average of twenty percent in the 1970s to an average of eighty-four percent by 2015.⁵⁰

Firms' costs reflect this change. Labor has become increasingly important, while more traditional measures of investment such as capital expenditures on real property have remained constant. As noted by Professors Rouen and Regier, capital expenditures on real property remained relatively constant at ten percent of sales during the period from 1991 to 2018, while personnel expenses as a percentage of sales increased from roughly twenty-eight percent to almost fifty percent over the same period.⁵¹ As stated previously, these investments are treated differently under accounting standards. While there may be a theoretical justification for this distinction, the practical application plausibly leads to systematic undervaluation, at least in accounting value, for these newer, technology-based industries.

2. Increasing Number of Loss Firms

Another key change in market dynamics is the growing number of firms that incurred a net loss in the prior year. This means that, under GAAP, the sum of a firm's expenses exceeded the sum of its revenues. Using data on U.S. public companies from S&P's Compustat Fundamentals database,⁵² Figures 2 and 3 describe this trend.

Figure 2 shows the percentage of U.S. publicly traded firms that had a net loss in each year from 1950 to 2020.⁵³ The percentage of loss firms has increased steadily over time, with the number of loss firms exceeding the number of profitable firms for the first time in 2020 (in total, 3,771 firms had negative net income, and 3,300 firms had positive or zero net income). By contrast, in 1950, a total of six firms (out of 548) had a net loss.

⁵⁰ U.S. SECURITIES AND EXCHANGE COMMISSION, RECOMMENDATION OF THE INVESTOR ADVISORY COMMITTEE: HUMAN CAPITAL MANAGEMENT DISCLOSURE (2019), <https://www.sec.gov/spotlight/investor-advisory-committee-2012/human-capital-disclosure-recommendation.pdf>.

⁵¹ Rouen & Regier, *supra* note 38, at 1–2, 31.

⁵² For more information on the database, see *Compustat Fundamentals*, S&P GLOB., [https://www.marketplace.spglobal.com/en/datasets/compustat-fundamentals-\(8\)](https://www.marketplace.spglobal.com/en/datasets/compustat-fundamentals-(8)) (last visited Mar. 27, 2022).

⁵³ Figure 2 includes firms traded on the New York Stock Exchange, American Stock Exchange, OTC Bulletin Board, NASDAQ-NMS Stock Market, NASDAQ OMX Boston, Midwest Exchange (Chicago), NYSE Arca, Philadelphia Exchange, and Other-OTC.

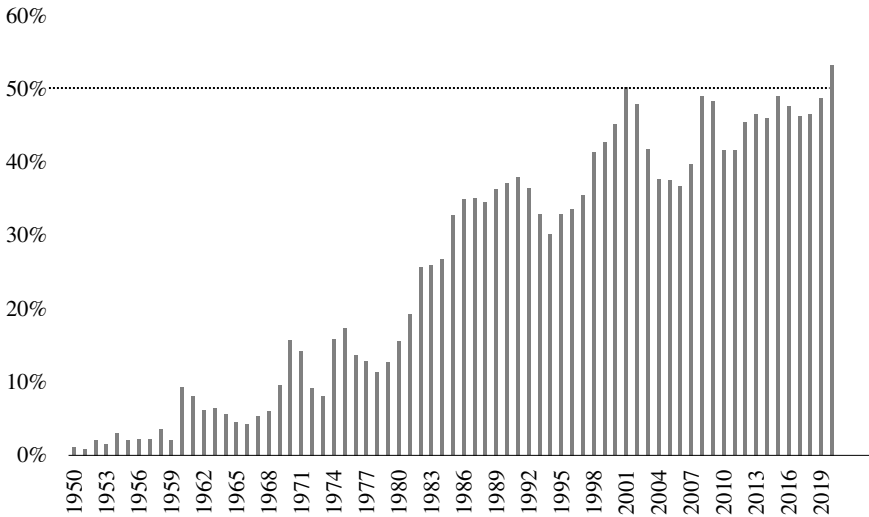


Figure 2. Percentage of U.S. Listed Firms with a Net Loss.

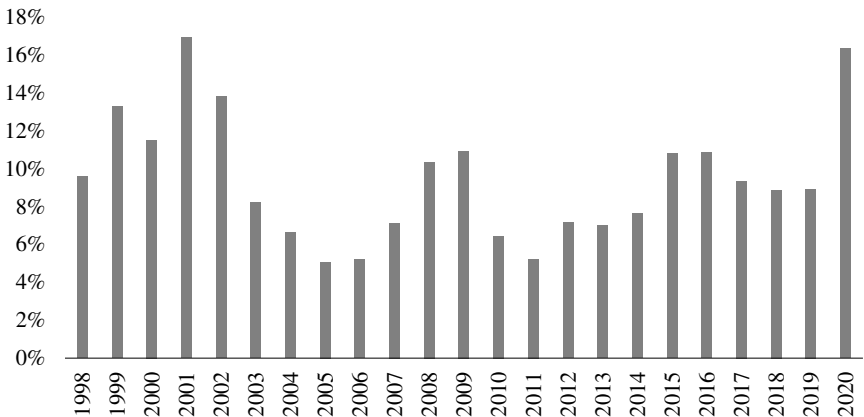


Figure 3. Percentage of Market Capitalization Reflected by Net Loss Firms.

Of course, many firms with net losses are small firms traded on secondary stock exchanges. Nonetheless, as shown in Figure 3, the total market capitalization of these “loss firms” ranged from five to seventeen percent of total U.S. market capitalization over the period from 1998 to 2020.⁵⁴ In

⁵⁴ U.S. market capitalization is defined as capitalization of the firms traded on the exchanges in the note above.

terms of dollar amount, the market capitalization of net loss firms peaked in 2020 at over \$7 trillion.

A leading explanation for the growing number of net loss companies is that many of these companies are relatively young, technology-heavy firms and investors are betting on their future profitability. As noted in CEO Today Magazine, “[b]lack in the day, investing in a firm that is not making profits would be considered insane, but the status quo is changing.”⁵⁵ Tesla, Uber, Amazon, Spotify, Slack, Snapchat, and Airbnb were all valued in the billions of dollars before making a profit.⁵⁶

Consider the difficulty this poses to investors. Imagine that an investor wants to estimate net income for a stable company such as Costco. As shown below, and as is typical for mature public companies,⁵⁷ Costco’s operating margin has remained relatively consistent year-to-year even as the firm has grown.⁵⁸ Assuming that our investor can reasonably estimate revenue growth for the coming year, which she presumably can given Costco’s disclosures on current revenue, new store openings, same-store sales, and online sales, she can use the margins below to estimate the percentage of the revenue that will flow down to net income.

⁵⁵ Richard Rossington, *5 of the World’s Biggest Companies That Are Making Zero Profit*, CEO TODAY (Nov. 7, 2019), <https://www.ceotodaymagazine.com/2019/11/5-of-the-worlds-biggest-companies-that-are-making-zero-profit/>.

⁵⁶ See *id.*; Dave Royse, *Here’s How Long It Took Amazon to Reach a \$100B Market Cap*, BENZINGA (Mar. 10, 2020), <https://www.benzinga.com/general/education/20/03/15517613/heres-how-long-it-took-amazon-to-reach-a-100b-market-cap> (noting that Amazon went public in 1997 at a valuation of \$438 million and had a valuation of over \$30 billion in 2000); Juan Carlos Perez, *Amazon Records First Profitable Year in Its History*, COMPUTERWORLD (Jan. 28, 2004), <https://www.computerworld.com/article/2575106/amazon-records-first-profitable-year-in-its-history.html> (indicating that Amazon was not profitable until the fourth quarter of 2003); Matthew DeBord, *Tesla Stock Is Up over 3,000% Since the Company’s 2010 IPO. Here’s How That Remarkable Level Was Achieved, Year-By-Year.*, BUS. INSIDER (June 16, 2020, 4:45 AM), <https://www.businessinsider.com/how-tesla-stock-went-up-since-ipo-timeline-2020-6> (noting that Tesla went public in 2010 and had never posted an annual profit despite peaking at a share price over \$1,000); Michael Wayland & Lora Kolodny, *Tesla’s Market Cap Tops the 9 Largest Automakers Combined – Experts Disagree about If That Can Last*, CNBC (Dec. 14, 2020, 3:08 PM), <https://www.cnbc.com/2020/12/14/tesla-valuation-more-than-nine-largest-carmakers-combined-why.html> (indicating that Tesla had a \$500 billion valuation in 2020); Neal E. Boudette, *Tesla Has First Profitable Year, but Competition Is Growing*, N.Y. TIMES (Jan. 27, 2021), <https://www.nytimes.com/2021/01/27/business/tesla-earnings.html> (reporting that Tesla first turned a full-year profit in 2021).

⁵⁷ See Aytakin Ertan et al., *Do Profit Margins Expand for High Growth Firms?*, 32 J. MGMT. ACCT. RSCH. 117, 119–20 (2020).

⁵⁸ Costco Wholesale Corp., Annual Report (Form 10-K), Consolidated Statements of Income 36 (Aug. 29, 2021); Costco Wholesale Corporation, Annual Report (Form 10-K) 36 (Sept. 1, 2019). Dollar values in table are expressed in millions.

TABLE 2. COSTCO FINANCIAL METRICS.

	52 Weeks Ended (53 Weeks for 2017 data)				
	Aug. 29, 2021	Aug. 30, 2020	Sept. 1, 2019	Sept. 2, 2018	Sept. 3, 2017
Total revenue	195,929	166,761	152,703	141,576	129,025
Operating income	6,708	5,435	4,737	4,480	4,111
Operating margin	3.42%	3.26%	3.10%	3.16%	3.19%

By contrast, imagine that the same investor wants to estimate net income for Uber, a company that has a market capitalization of over \$70 billion despite that it has incurred a loss from operations every year. As shown below, Uber has grown rapidly—a common characteristic of younger companies—and its operating margin (loss) has fluctuated widely.⁵⁹ It will be difficult for our hypothetical investor to estimate revenue, and virtually impossible for her to reliably estimate the profits (if any) that Uber could earn on that revenue.

TABLE 3. UBER FINANCIAL METRICS.

	Year Ended December 31,				
	2020	2019	2018	2017	2016
Total revenue	11,139	13,000	10,433	7,932	3,845
Operating income (loss)	-4,863	-8,596	-3,033	-4,080	-3,023
Operating margin	-43.66%	-66.12%	-29.07%	-51.44%	-78.62%

To see why, consider the following two intuitions. First, in the years after going public, firms often have low or negative profit margins, but these companies are widely expected to improve their margins as they scale.⁶⁰ The assumption is that many costs—such as those related to distribution, marketing, and investor relations—are semi-variable, meaning that they increase with sales but not proportionately. Although intuitive that the company's cost structure and respective margins will change as the company grows, investors need to know when profitability will be achieved and what margins

⁵⁹ Uber Technologies, Inc., Annual Report (Form 10-K) 50 (Feb. 26, 2021) [hereinafter Uber 2020 10-K]; Uber Technologies, Inc., Annual Report (Form 10-K) 47 (Mar. 2, 2020). Data for 2016 and 2017 are from Uber's 10-K for the year ended December 31, 2019.

⁶⁰ See Ertan et al., *supra* note 57, at 118 (“To illustrate how frequently scale efficiencies are invoked for IPOs, we search for the term ‘scale’ in the registration filings and sell-side analyst reports initiating coverage for the 20 largest IPOs in 2018 . . . [F]or all but two firms we find numerous references to margins improving with scale in both sets of documents.”).

will be at that point.⁶¹ However, accounting rules provide only current and historical margins; there is no data on labor costs or other major costs that would shed light on the breakdown between fixed, variable, and semi-variable costs.

Second, the assumption with firms such as Uber, which are built on the concept of network effects, is that the value of the core product will increase as the firm attracts more users.⁶² In other words, the business model is predicated on the firm spending significant upfront fixed costs to build out its network until it reaches a tipping point, at which the firm pulls away from its rivals in popularity and an incremental sale can be accomplished with little to no incremental investment in fixed costs. Building on this narrative, Uber tends to characterize its accounting losses as “investment losses”—that is, fixed costs incurred and expensed today, but that will build market share and yield future revenues. Because the current reporting system does not provide sufficient information on labor and other major costs, investors cannot challenge this narrative or reliably estimate what portion of costs are investment and what portion are ongoing expenses.⁶³

II. HCM BEYOND FINANCIAL REPORTING

The increasing importance of labor as a driver of value has helped to fuel investors’ focus on HCM.⁶⁴ Of all ESG topics, interest in HCM is com-

⁶¹ See *id.* at 126 (finding that firm-level margins generally change minimally for public companies, but that margins in the years following IPO are most volatile).

⁶² See, e.g., Uber 2020 10-K, *supra* note 59, at 5 (“Both of these dynamics grow our network scale and liquidity, which further increases the value of our platform to platform users.”).

⁶³ See Shivaram Rajgopal, *What Would a New Financial Reporting Model for Network Businesses Look Like?*, FORBES (Apr. 12, 2021, 9:00 AM), <https://www.forbes.com/sites/shivaramrajgopal/2021/04/12/what-would-a-new-financial-reporting-model-for-network-businesses-look-like/?sh=6339a9822af3> (arguing that “the current financial reporting model obfuscates, rather than informs, capital providers about the economies of [network businesses].”). At the so-called tipping point, the incremental contribution margin (revenue per unit minus the variable cost per unit), by and large, directly flows to net income. However, to identify the “tipping” point, investors need to distinguish what portion of Uber’s costs are fixed costs spent to acquire new, relatively permanent customers, what portion of Uber’s costs are promotional variable costs spent on already-existing customers (e.g., coupons and discounts), and what portion of Uber’s costs are non-promotional variable costs (e.g., driver compensation). See *id.*

⁶⁴ In addition to those who care about the financial utility of HCM disclosures, there are many who focus on the social utility of the information. For example, some consider how to improve employee livelihood and involve employees in governance. A non-exhaustive list of social HCM priorities includes issues such as labor practices, employee health and safety, employee engagement, diversity and inclusion, employee retention, workforce pay, promotion opportunities, outsourcing, gender and racial pay equity, and the ability to participate in stock purchase programs. See Paul Kiernan, *SEC Weighs Requiring Companies to Give More Details on Workers*, WALL. ST. J. (Aug. 20, 2021, 5:36 PM), <https://www.wsj.com/articles/sec-weighs-requiring-companies-to-give-more-details-on-workers-11629489647>.

monly considered second only to climate change.⁶⁵ Given the vast interest in this area, one might expect that forces driven by either the SEC and/or private ordering would have resulted in high-quality disclosure for investors even in the absence of movement by accounting standards setters. Certainly, there has been some disclosure. However, as we describe in this section, investors have not been satisfied with the information generated through these other mechanisms.

A. *Materiality and HCM Disclosures*

As any student of securities law knows, companies are required to disclose all material information, where a fact is material if there is “a substantial likelihood that a reasonable shareholder would consider it important in deciding how to vote. . . .” Put another way, there must be a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the ‘total mix’ of information made available.”⁶⁶ Over time, various court and SEC interpretations have helped to flesh out this definition.

There is widespread agreement that a disclosure is material if it meets specific “quantitative” standards. Lawyers have historically considered this standard to be five percent of pretax income, meaning that a particular disclosure is material if it exceeds five percent of pretax income.⁶⁷ However, information can be qualitatively material even if not quantitatively material, and assessing qualitative materiality is more difficult. For example, imagine that a company knowingly overstated its income by one percent to meet Wall Street’s expected earnings target. Or that a CEO knowingly committed fraud, but that the dollar value of the transaction was very low. Such examples would not be quantitatively material, but they would likely be qualitatively material.⁶⁸

Assessing qualitative materiality is a subjective judgment that requires an assessment of the nature of the misstatements and/or omissions, as well as the circumstances of their occurrence—a far more difficult task than simply

⁶⁵ See, e.g., George S. Georgiev, *The Human Capital Management Movement in U.S. Corporate Law*, 95 TUL. L. REV. 639, 668 (2021) (“Each of Fink’s annual letters since 2017 has maintained the spotlight on HCM topics; in terms of prominence, HCM has ranked second only to concerns related to climate change.”)

⁶⁶ *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438, 449 (1976). In brief, the definition above leads to three questions. First, is there a substantial likelihood that a reasonable investor would consider the information important to either voting or investment decisions? Second, would a reasonable investor consider the information to have altered the total mix of information? And third, who (or what) is a reasonable investor?

⁶⁷ See SEC Staff Accounting Bulletin, No. 99: Materiality, 17 C.F.R. 211 Subpart B (Aug. 12, 1999) (acknowledging the widespread use of a five percent materiality threshold, but arguing that “the magnitude of a misstatement is only the beginning of an analysis of materiality”).

⁶⁸ *Id.* Other examples of qualitative materiality include whether the CEO has committed any ethical misconduct and/or knowingly violated any accounting rules. *Id.*

applying a numerical threshold. To date, HCM disclosures, and ESG disclosures more generally, typically fall into this subjective category of qualitative materiality. Undoubtedly, issues such as HCM and climate change are material for some companies,⁶⁹ but commentators have argued that they are unlikely to be material for all companies.⁷⁰

B. SEC's HCM Guidance

The uncertainty in assessing qualitative materiality has led to difficulty crafting consistent HCM disclosures. Over time, two approaches to have emerged. The first reflects a principles-based approach that highlights policies and procedures, and the second reflects a prescriptive approach that mandates disclosure of specific metrics.⁷¹ Proponents of the principles-based approach argue that it is more cost-effective, as the disclosures will be tailored to each company's specific business and industry using management's judgment of what is material.⁷² Proponents of the prescriptive approach, by contrast, argue that principles-based solutions allow managers to provide cherry-picked and incomplete information, making disclosures unreliable and inconsistent across companies.⁷³

⁶⁹ See, e.g., BP p.l.c., Annual Report (Form 20-F) 68 (Mar. 22, 2021) ("Laws, regulations, policies, obligations, government actions, social attitudes and customer preferences relating to climate change and the transition to a lower carbon economy, including the pace of change to any of these factors, and also the pace of the transition itself, could have adverse impacts on our business.").

⁷⁰ See, e.g., Hillary Holmes et al., *Considerations for Climate Change Disclosures in SEC Reports*, GIBSON DUNN (Mar. 1, 2021), <https://www.gibsondunn.com/considerations-for-climate-change-disclosures-in-sec-reports/> (noting that many ESG disclosures "may not be material under the federal securities laws"). However, labor costs likely exceed five percent of net income for the vast majority of companies, which would render them quantitatively material. Cf. Hope Spencer et al., *Public Company Alert: Are You Ready for the New Human Capital Management Disclosure?*, NAT'L L. REV. (Oct. 28, 2020), <https://www.natlawreview.com/article/public-company-alert-are-you-ready-new-human-capital-management-disclosure> (arguing that "few companies will be able to avoid [the SEC's new HCM disclosure mandate] entirely by taking the position that their management of human capital is not material to their business").

⁷¹ See William Hinman, Director, Div. of Corp. Fin., Sec. & Exch. Comm'n, Address at the PLI Directors' Institute on Corporate Governance: The Regulation of Corporation Finance—A Principles-Based Approach (Nov. 18, 2020), <https://www.sec.gov/news/speech/hinman-regulation-corporation-finance-2020-11-18>.

⁷² See William Hinman, Director, Div. of Corp. Fin., Sec. & Exch. Comm'n, Remarks at the 18th Annual Institute on Securities Regulation in Europe: Applying a Principles-Based Approach to Disclosing Complex, Uncertain and Evolving Risks (Mar. 15, 2019) (advocating for a principles-based approach and stating that "I am always cognizant that imposing specific bright-line requirements can increase the costs associated with being a public company and yet not deliver the relevant and material information that market participants are seeking").

⁷³ See, e.g., Allison Herren Lee & Caroline A. Crenshaw, *Joint Statement on Amendments to Regulation S-K: Management's Discussion and Analysis, Selected Financial Data, and Supplementary Financial Information*, SEC. & EXCH. COMM'N (Nov. 19, 2020), <https://www.sec.gov/news/public-statement/lee-crenshaw-statement-amendments-regulation-s-k>; George S. Georgiev, *The Human Capital Management Movement in U.S. Corporate Law*, 95 TUL. L. REV. 639, 718 (2021).

In general, Republicans have favored the principles-based approach.⁷⁴ This approach is reflected in the SEC's most recent HCM guidance, which was implemented in late 2020 under the Trump Administration-appointed SEC.⁷⁵ This guidance requires no prescriptive metrics. Instead, it mandates that, under Regulation S-K, companies must disclose any human capital measures or objectives, if material, that the company focuses on in managing its business.⁷⁶ The rules do not define "human capital," and "literally require nothing quantitative other than total number of employees"—and only that must be disclosed if material to the business as a whole.⁷⁷ The firm itself determines what information is material. In other words, the guidance is scant and open to interpretation.⁷⁸

By contrast, Democrats have favored the prescriptive approach, as illustrated by the dissent issued by the two Democratic commissioners in response to the 2020 HCM guidance. These Commissioners argued that the resulting disclosures would be vague and fluffy, not informative, and pointed to research that "a principles-based approach, coupled with voluntary disclosure, results in non-standardized, inconsistent, and incomparable disclosures."⁷⁹ The Democratic commissioners concluded by arguing that a prescriptive approach was necessary for investors to accurately price and compare risk.⁸⁰

Given the frustration of the Democratic commissioners with the 2020 HCM guidance, it is not surprising that the new set of commissioners (now with a 3-2 Democratic majority) is moving towards revising the HCM guidance. In March 2021, Acting Chair Allison Lee initiated a request for com-

⁷⁴ See, e.g., Seth M. Kruglak et al., *SEC Poised to Prioritize ESG-Related Disclosures under Biden Administration*, NORTON ROSE FULBRIGHT (Feb. 10, 2021), <https://www.nortonrosefulbright.com/en/knowledge/publications/2ce5ebeb/sec-poised-to-prioritize-esg-related-disclosures-under-biden-administration>. While Republicans appear comfortable relying on management to determine which HCM disclosures are material, Democrats have been deferential to the judgment of institutional investors, many of whom state that material ESG-related information is not being disclosed, and that these disclosures should be mandatory. See Alana L. Griffin et al., *Institutional Investors Petition the SEC to Require ESG Disclosures*, AM. BAR ASS'N (Jan. 16, 2019), https://www.americanbar.org/groups/business_law/publications/blt/2019/01/investors/ (describing a petition submitted to the SEC by various institutional investors requesting a standardized ESG disclosure framework).

⁷⁵ Press Release, U.S. Sec. & Exch. Comm'n, SEC Adopts Rule Amendments to Modernize Disclosures of Business, Legal Proceedings, and Risk Factors Under Regulation S-K (Aug. 26, 2020), <https://www.sec.gov/news/press-release/2020-192>. The guidance was issued following a recommendation from the SEC's Investor Advisory Committee. SEC. & EXCH. COMM'N, RECOMMENDATION OF THE INVESTOR ADVISORY COMMITTEE: HUMAN CAPITAL MANAGEMENT DISCLOSURE (2019), <https://www.sec.gov/spotlight/investor-advisory-committee-2012/human-capital-disclosure-recommendation.pdf>.

⁷⁶ See Deb Lifshy, *Client Alert: SEC Mandates Human Capital Disclosure: Nebulous Guidance Provided*, PEARL MEYER (Sept. 2020), <https://www.pearlmeyer.com/knowledge-share/client-alert/sec-mandates-human-capital-disclosure-nebulous-guidance-provided>.

⁷⁷ *Id.*

⁷⁸ *Id.* (noting that "the new rule offers little more than undefined terms and open-ended interpretations").

⁷⁹ Lee & Crenshaw, *supra* note 73.

⁸⁰ *Id.*

ments on whether and how the Commission should mandate disclosure of HCM and other ESG factors.⁸¹ Shortly after the close of the comment period, Chair Gary Gensler asked the staff for a recommendation that “could include a number of metrics, such as workforce turnover, skills and development training, compensation, benefits, workforce demographics including diversity, and health and safety.”⁸² Updated guidance is likely to be published in the coming year.⁸³

C. Voluntary Disclosure Regime

In sum, there is no consistent and standardized mandatory HCM reporting framework. In the absence of a mandatory framework, one might expect private ordering to provide a solution.⁸⁴ Consistent with such intuition, a series of private standard-setters have developed frameworks for companies to follow.⁸⁵ However, because companies pick and choose the framework to follow, some companies follow multiple frameworks and others follow none. The result is that there is a wide range of HCM disclosures, and investors complain that these disclosures are inconsistent, incomparable, and unreliable.⁸⁶

1. Private Ordering

Under private ordering, individual actors agree on how to conduct an activity among themselves rather than relying on regulatory intervention. Given that companies can voluntarily disclose HCM information, one might expect private ordering to have generated a solution. Unfortunately, as we describe below, private ordering has provided an incomplete solution.

a. Unraveling Theory

In a voluntary disclosure regime, companies have strong incentives to disclose all information that is relevant to investors. The underlying theory, often referred to as the unraveling theory, works as follows.⁸⁷ If a company

⁸¹ Allison Herren Lee, *Public Input Welcomed on Climate Change Disclosures*, SEC. & EXCH. COMM'N (Mar. 15, 2021), <https://www.sec.gov/news/public-statement/lee-climate-change-disclosures>.

⁸² Gary Gensler, *Prepared Remarks by SEC Chair Gensler at London City Week*, HARVARD L. SCH. F. ON CORP. GOVERNANCE (June 24, 2021), <https://corp.gov.law.harvard.edu/2021/06/24/prepared-remarks-by-sec-chair-gensler-at-london-city-week/>.

⁸³ See Sophia Hudson, *Preparing for Potential Updates to HCM & Board Diversity Disclosure Requirements*, HARVARD L. SCH. F. ON CORP. GOVERNANCE (Oct. 18, 2021), <https://corp.gov.law.harvard.edu/2021/10/18/preparing-for-potential-updates-to-hcm-board-diversity-disclosure-requirements/>.

⁸⁴ See *infra* Part II.C.1.a.

⁸⁵ See *infra* Part II.C.1.b.

⁸⁶ See *infra* Part II.C.1.c.

⁸⁷ See, e.g., Sanford J. Grossman, *The Informational Role of Warranties and Private Disclosure About Product Quality*, 24 J.L. & ECON. 461, 461–63 (1981); Jeremy Bertomeu,

has internal information revealing that it is a “good type,” the company will disclose it voluntarily. Should a firm fail to disclose the information, investors could reasonably assume that the non-disclosure firm is a “bad type” and punish it accordingly.

To avoid being paired with the worst firms, the firms that did not initially disclose but that have relatively good metrics compared with the other non-disclosure firms would be incentivized to disclose as well. This results in a cycle in which the “least bad” firms within the set of non-disclosure firms continue to disclose. Over time, in theory, this will lead to full (or nearly full) disclosure, as the top echelon of the non-disclosure firms will continually disclose to avoid being grouped with the other non-disclosure firms.

Certainly, this behavior provides a partial solution. As we describe below, a series of private standard-setters have emerged to provide issuers with potential reporting frameworks, and most large public companies provide a sustainability report.⁸⁸ However, full unraveling theory relies on two critical assumptions. First, there must be no cost to the disclosure. If a cost exists, it is unclear whether a firm neglected to disclose because the cost would exceed the benefit or because the firm is a “bad type.” This reduces the informativeness of the signal of non-disclosure. Second, each firm must know its own type. If the firm does not know its own type, it will be unable to disclose rationally.⁸⁹

When it comes to HCM disclosures, it is unlikely that either of these assumptions are met. The disclosures are not costless (at a minimum, there are costs related to production and verification of the information). It is also unlikely that all firms know their type, as much anecdotal evidence indicates that companies are unfamiliar with (and do not reliably collect) their own internal ESG data.⁹⁰

Finally, there is one additional factor likely to impede full unraveling: the presence of indexing. For many investors, the decision to purchase a security is not bundled with the existence of a particular disclosure. If a company is included in an index, index funds will be required to purchase

Chapter II: Voluntary Disclosure, https://drive.google.com/file/d/0B3RTY2KvMiIxbLhRZU5SRWdVZ00/view?resourcekey=0-_JLZclG7VZCcOyQTHWCTfw (last visited Dec. 31, 2021).

⁸⁸ See Press Release, Governance & Accountability Inst., 92% of S&P 500 Companies and 70% of Russell 1000 Companies Published Sustainability Reports in 2020, G&A Institute Research Shows (Nov. 16, 2021), <https://www.globenewswire.com/news-release/2021/11/16/2335435/0/en/92-of-S-P-500-Companies-and-70-of-Russell-1000-Companies-Published-Sustainability-Reports-in-2020-G-A-Institute-Research-Shows.html>.

⁸⁹ See Bertomeu, *supra* note 87, at 1–2; see also Scott R. Peppet, *Unraveling Privacy: The Personal Prospectus and the Threat of a Full-Disclosure Future*, 105 Nw. L. REV. 1153, 1191–93 (2011) (noting that unraveling also requires that uninformed people be able to understand the disclosed information and implications of non-disclosure, and that there are no prevailing norms against disclosure).

⁹⁰ See, e.g., Paul G. Mahoney & Julia D. Mahoney, *The New Separation of Ownership and Control: Institutional Investors and ESG*, 2021 COLUM. BUS. L. REV. 840, 873–74 (anticipating compliance costs as well as other risks associated with ESG disclosures).

the security as long as it remains in the index. This prevents many of the largest investment funds from punishing “bad types.”⁹¹

b. Private ESG Standard-Setters

Although we would not expect full unraveling through private markets, we can expect some amount of voluntary disclosure. Consistent with intuition, many private standard-setters have developed frameworks to guide ESG disclosures, including HCM disclosures. A non-exhaustive list of such standard-setters⁹² includes the Sustainable Accounting Standards Board (SASB),⁹³ International Integrated Reporting Council (IIRC),⁹⁴ Global Reporting Initiative (GRI),⁹⁵ World Economic Forum (WEF),⁹⁶ International Sustainability Standards Board (ISSB),⁹⁷ and Non-Financial Reporting Directive (NFRD).⁹⁸

These standard-setters differ in important dimensions. One such difference is the definition of materiality. For example, SASB has traditionally purported to apply the same definition of materiality as the SEC (that is, financial materiality).⁹⁹ At the other extreme, NFRD employs a double mate-

⁹¹ See Andrew Winden & Andrew Baker, *Dual-Class Index Exclusion*, 13 VA. L. & BUS. REV. 101, 104–05 (2019).

⁹² We omit major environmental standard-setters that do not focus on HCM such as the Carbon Disclosure Project (CDP), the Financial Stability Board’s Task Force on Climate-related Financial Disclosures (TCFD), and the Climate Disclosure Standards Board (CDSB).

⁹³ *About Us*, SUSTAINABILITY ACCT. STANDARDS BD., <https://www.sasb.org/about/> (last visited Dec. 9, 2021).

⁹⁴ *IIRC and SASB Form the Value Reporting Foundation, Providing Comprehensive Suite of Tools to Assess, Manage and Communicate Value*, VALUE REPORTING FOUND. (June 9, 2021), <https://www.integratedreporting.org/news/iirc-and-sasb-form-the-value-reporting-foundation-providing-comprehensive-suite-of-tools-to-assess-manage-and-communicate-value/>. In mid-2021, the SASB and IIRC merged into a unified organization called Value Reporting Foundation. *Id.*

⁹⁵ *Our Mission and History*, GLOB. REPORTING INITIATIVE, <https://www.globalreporting.org/about-gri/mission-history/> (last visited Dec. 9, 2021).

⁹⁶ *Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation*, WORLD ECON. F. (Sept. 22, 2020), <https://www.weforum.org/reports/measuring-stakeholder-capitalism-towards-common-metrics-and-consistent-reporting-of-sustainable-value-creation>.

⁹⁷ *About the International Sustainability Standards Board*, INT’L FIN. REPORTING STANDARDS, <https://www.ifrs.org/groups/international-sustainability-standards-board/> (last visited Dec. 9, 2021).

⁹⁸ *Corporate Sustainability Reporting*, EUR. COMM’N, https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en (last visited Dec. 9, 2021). This area is evolving rapidly, with new standard-setters continuously arising. See, e.g., Press Release, The Carlyle Grp., Private Equity Industry Establishes First-Ever LP and GP Partnership to Standardize ESG Reporting (Sept. 30, 2021), <https://www.carlyle.com/media-room/news-release-archive/private-equity-industry-establishes-first-ever-lp-and-gp-partnership-standardize-esg-reporting>.

⁹⁹ SASB recently endorsed dynamic materiality. David Katz & Laura A. McIntosh, *Corporate Governance Update: “Materiality” in America and Abroad*, HARV. L. SCH. F. ON CORP. GOVERNANCE (May 1, 2021), <https://corpgov.law.harvard.edu/2021/05/01/corporate-governance-update-materiality-in-america-and-abroad/>. One might wonder why, if SASB has purported to follow the same definition of materiality as the Commission, and if securities laws mandate disclosure of all material information, all companies do not automatically adhere

riality standard, meaning that companies must report how sustainability risks affect the business—and how their business affects sustainability risks.¹⁰⁰ The standard-setters also differ over whether the disclosure framework focuses on prescriptive or process-oriented disclosures. To understand the difference, consider the following: the number of employees injured at work would be a prescriptive disclosure, and the processes that the firm follows to keep employees safe would be a process-oriented disclosure.

c. Investor Dissatisfaction with Private Ordering

In sum, although many companies follow the standards promulgated by one or more of the aforementioned standard-setters, institutional investors have been dissatisfied. Complaints are plentiful, but they broadly focus on three common criticisms: that the disclosures are not comparable, consistent, or reliable.¹⁰¹

First, as documented in prior work, the information in many issuer ESG reports is not comparable or consistent.¹⁰² Many companies neglect to follow any of the disclosure frameworks, follow the frameworks only in part, or follow the frameworks in theory but calculate the suggested metrics using an inconsistent approach.¹⁰³ This has led to disclosure that lacks comparability over time and across companies. Both such comparisons are important. To compare the performance of the same firm over time, investors need comparable metrics over a period of several years.¹⁰⁴ To compare the performance of a firm with its peers, investors need consistent reporting across peer firms.¹⁰⁵

to the SASB framework. The answer lies in the uncertainty in our understanding of materiality. Should the Commission state that SASB's framework is financially material, issuers would adopt that framework.

¹⁰⁰ NORA HAHNKAMPER-VANDENBULCKE, EUR. PARLIAMENT, NON-FINANCIAL REPORTING DIRECTIVE 3 (2021), [https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/654213/EPRS_BRI\(2021\)654213_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/654213/EPRS_BRI(2021)654213_EN.pdf).

¹⁰¹ Letter from Jill E. Fisch, Saul A. Fox Distinguished Professor of Business Law, et al., to Gary Gensler, SEC Chairman 3, 10 (June 11, 2021), <https://www.sec.gov/comments/climate-disclosure/cl112-8911728-244385.pdf>.

¹⁰² See, e.g., Paul Griffin & Amy Myers Jaffe, *Challenges for a Climate Risk Disclosure Mandate*, NATURE ENERGY (Nov. 12, 2021), <https://www.nature.com/articles/s41560-021-00929-z>; DAN ETSY ET AL., TOWARD ENHANCED SUSTAINABILITY DISCLOSURE: IDENTIFYING OBSTACLES TO BROADER AND MORE ACTIONABLE ESG REPORTING, YALE INITIATIVE ON SUSTAINABLE FINANCE 17 (2020), <https://envirocenter.yale.edu/sites/default/files/files/YISF%20ESG%20Reporting%20White%20Paper.pdf>.

¹⁰³ See Maha Eltobgy et al., *Here's Why Comparable ESG Reporting is Crucial for Investors*, WORLD ECON. F. (July 8, 2021), <https://www.weforum.org/agenda/2021/07/comparable-esg-investors/>.

¹⁰⁴ The importance of time-series analysis is why financial statements require three years of annual reporting in the income statement, and why the Commission has mandated that non-GAAP metrics must be calculated on a consistent basis from year to year. See Conditions for Use of Non-GAAP Financial Measures, 68 Fed. Reg. 4820, 4822 n.23 (Jan. 30, 2003).

¹⁰⁵ See, e.g., Klaus Dingwerth & Margot Eichinger, *Tamed Transparency; How Information Disclosure under the Global Reporting Initiative Fails to Empower*, 10 GLOB. ENV'T POL. 74, 88 (2010) (finding that, across car manufacturers reporting to follow GRI standards, "quantitative data are not always gathered systematically and reported completely, while qual-

Second, there are serious concerns with the reliability of ESG disclosures, as issuers typically lack the reporting infrastructure designed to generate reliable, high-quality data.¹⁰⁶ Consider the data generation process for financial reporting. Issuers typically have accounting software to track and record relevant information, and the data are input into the software in accordance with an internal controls framework that mandates procedures designed to improve the reliability of the information.¹⁰⁷ In addition to these internal processes, there are external procedures to verify the accuracy of the internal data (for example, external auditors and regulators).¹⁰⁸ These processes and procedures rarely exist to the same extent for ESG reporting.¹⁰⁹ As an example, consider the difficulty that companies faced in reporting under the “conflict minerals” standard required by Section 1502 of the Dodd-Frank Act.¹¹⁰ Almost ten years after the disclosure went into effect, the majority of companies could not determine whether their conflict minerals financed or benefitted armed groups.¹¹¹ Such data reliability issues are pervasive.¹¹²

itative information appears unbalanced and often fails to include a credible assessment of the sustainability impacts of various measures taken by a reporting organization”); Letter from Cynthia A. Williams, Osler Chair in Business Law, Osgoode Hall L. Sch., et al., to Brent J. Fields, Secretary, Sec. & Exch. Comm’n 9–12 (Oct. 1, 2018), <https://www.sec.gov/rules/petitions/2018/petn4-730.pdf> (describing several flaws in the current ESG reporting regime).

¹⁰⁶ Paul Brest & Colleen Honigsberg, *Measuring Corporate Virtue and Vice: Making ESG Metrics Trustworthy*, in *FRONTIERS IN SOCIAL INNOVATION: THE ESSENTIAL HANDBOOK FOR CREATING, DEPLOYING, AND SUSTAINING CREATIVE SOLUTIONS TO SYSTEMIC PROBLEMS* (Neil Malhotra ed., forthcoming 2022).

¹⁰⁷ See EASTON ET AL., *supra* note 10, at 3-3–3-9.

¹⁰⁸ *Id.* at 1-30–1-31.

¹⁰⁹ There is no widespread ESG reporting software akin to that for financial reporting. Internal controls are lacking, and external verification is minimal. Although ESG reports are frequently audited, these audits typically provide “limited assurance”—a level of assurance far below that provided in financial reporting. For example, some limited assurance audits do not even include field work. See, e.g., *Letter of Assurance: Company Carbon Footprint*, FRAUNHOFER IZM (Mar. 31, 2017), https://www.apple.com/environment/pdf/CCF_Review_Statement_FY16_US_Letter.pdf (noting, in an audit of annual carbon footprint emissions from Apple products, that “[t]his review was done remotely”). In addition, the auditing standards used to audit these reports are often unstated, meaning that investors do not know the professional standards that were used by the auditor. See, e.g., Lloyd’s Register, *LR Independent Assurance Statement: Relating to Ingersoll Rand’s GHG & EHS Data Calendar Year 2020*, INGERSOLL RAND INV. RELATIONS (July 9, 2021), <https://www.irco.com/en-us/company/corporate-responsibility/sustainability-reports> (to locate, click “2020 Assurance Statement”).

¹¹⁰ Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111–203, 124 Stat. 1376, 2213–18 (2010).

¹¹¹ Cydney Posner, *GAO Issues Annual Report on Conflict Minerals Filings*, COOLEY PUBCO (Oct. 16, 2019), <https://cooleypubco.com/2019/10/16/gao-annual-report-conflict-minerals/> (“[A]s in prior years, almost all companies reported that, after conducting due diligence, they could not determine whether their conflict minerals financed or benefitted armed groups.”); see also Yong Kim & Gerald F. Davis, *Challenges for Global Supply Chain Sustainability: Evidence from Conflict Minerals Reports*, 59 ACAD. MGMT. J. 1896, 1897 (2016). See Mahoney & Mahoney, *supra* note 90.

¹¹² As an example, consider whether disclosure of the greenhouse gas emissions for the full supply chain are reliable if the issuer has only limited visibility into its supply chain.

2. Range of HCM Disclosures

To provide some context for the wide range and inconsistency of HCM disclosures provided to investors, we hand-collected HCM metrics from the sustainability reports of four European companies: Dassault Systems, Schneider Electric, SAP, and Thales Group.¹¹³ Although Europe's accounting standard-setter has announced its intention to move to a single standard-setter, the market is currently fragmented. Although all four companies provide detailed and high-quality HCM disclosures, there is considerable variation in even these four reports. In total, as shown in Table 4, these four companies report seventy different HCM metrics. Of those seventy, only one was reported by all four issuers, five were reported by three issuers, and twelve were reported by two issuers. The remaining fifty-two were reported by only one issuer.

¹¹³ In total, Dassault disclosed 24 metrics, SAP disclosed 16 metrics, Schneider disclosed 33 metrics, and Thales disclosed 22 metrics.

TABLE 4. NUMBER OF ISSUERS REPORTING EACH HCM METRIC.

Four	% women managers
Three	# employees in # countries, Average number of hours of training/employee, % women in company, # new hires in prior year, % women new hires
Two	% employees in R&D, Absenteeism rate, % permanent contracts, Average rate of employees leaving at their own initiative, Average tenure, % generation/age breakdown of workforce, % workers w/ disabilities in France, Lost time incident rate, % union/works council employees, Retention rate, Employee engagement index, # employees worldwide
One	% change in R/D headcount, % employees trained on ethics/compliance, % of pride and satisfaction, % women on exec. team, % headcount growth, Gender Equality Index, Conversion of interns/apprentices, % jobs filled by referral, % employees who received training, % job offers filled by internal applications, % certified employees in knowledge of company and sharing our values, % certified managers in managerial skills, % satisfaction in work environment, # of occupational accidents, % full time, total payroll, % mgmt. committees w= >3 female members, frequency rate of accidents, frequency rate of accidents, severity of accidents, % employees working at ISO 45001 site, \$ distributed as profit sharing, \$ distributed as incentive scheme, % of payroll budget to addressing pay gap, # of children of employees given spots at daycare, % departures due to redundancies, Employee Engagement Index, Medical incidents/million hours worked, % employees that have access to comprehensive well-being program, % employees working in countries that have fully deployed our family leave policy, % workers rec'd >11.25 hrs. of learning, % white collar workers w/ individual development plans, % employees working in countries w/commitment and process to achieve gender pay equity, % sales, procurement, finance employees trained on anticorruption, % employees trained on wellbeing, Satisfaction score for overall learning experience at SE, # employees accessing online learning platform/month, Completion rate of company must know on compliance/culture, % women in stem roles, % resignations by seniority, % employees with performance review, Learning and development cost/employee, % employee taking one day training, % women in white collar, % women in blue collar, Restructuring terminations, Average personnel expense, % completion of leadership program, % participation in employee share purchase plan, "Leadership Trust Net Promoter Score," "Innovation Index," "Simplification of Processes" %, "Business Health Culture Index"

Even this small sample reflects the wide variety of HCM measures, and the resulting difficulty that variability poses to investors who seek to com-

pare a firm with its peers. In addition, although we make no suggestion that these specific companies engage in cherry-picking, the wide variety of possible metrics allows for companies to cherry-pick the information they provide.

A further obstacle is the difficulty of translating these indicators into a meaningful dollar value of human capital for each firm.¹¹⁴ Much work has found that “culture” affects firm value, and many common human capital metrics such as turnover, equality, and profit-sharing likely capture culture.¹¹⁵ However, quantifying how each metric affects culture, already an amorphous concept, and monetizing that impact involves considerable financial gymnastics.

Of course, the Financial Accounting Standards Board (FASB), the entity that sets accounting standards, does not exist in a vacuum and is aware of investor dissatisfaction with current HCM disclosures. However, to date, and much to the frustration of investor groups,¹¹⁶ it has yet to make any significant movement in this area. More generally, when it comes to ESG topics, U.S. accounting standards promulgated by FASB have lagged behind European accounting standards proposed by the International Financial Reporting Standards (IFRS). For example, it was not until March 2021 that FASB issued a white paper highlighting the intersection of ESG matters with financial accounting standards.¹¹⁷ IFRS had issued a white paper making many of the same points back in November 2019,¹¹⁸ and announced its inten-

¹¹⁴ Rajgopal, *supra* note 9.

¹¹⁵ See, e.g., Daniel R. Denison, *Bringing Corporate Culture to the Bottom Line*, 13 ORGANIZATIONAL DYNAMICS 5, 20 (finding that “the cultural and behavioral characteristics of organizations have a measurable effect on a company’s performance”); Jesper B. Sørensen, *The Strength of Corporate Culture and the Reliability of Firm Performance*, 47 ADMIN. SCI. Q. 70, 88 (2002) (finding that “[s]trong corporate cultures facilitate reliable performance in relatively stable environments, but as volatility increases, these benefits are dramatically attenuated”); Brooks C. Holtom et al., *Turnover and Retention Research: A Glance at the Past, a Closer Review of the Present, and a Venture into the Future*, 2 ACAD. MGMT. ANNALS 231, 240, 248–49 (2008) (summarizing research about the impact of culture on turnover and the impact of turnover on firm performance); Alex Bryson & Richard Freeman, *Profit Sharing Boosts Employee Productivity and Satisfaction*, HARV. BUS. REV. (Dec. 13, 2016), <https://hbr.org/2016/12/profit-sharing-boosts-employee-productivity-and-satisfaction> (linking profit-sharing plans to firm performance and employee satisfaction).

¹¹⁶ See Letter from Jane B. Adams, Former SEC Deputy Chief Accountant and Former Acting Chief Accountant Member, Alliance of Concerned Investors, et al., to Gary Gensler, SEC Chairman 1–2 (June 7, 2021), <https://ourfinancialsecurity.org/wp-content/uploads/2021/06/Repair-the-Financial-Reporting-Infrastructure-Sign-on-Letter.pdf> (“Increasingly, there is a growing demand for [financial] information to include applicable disclosures regarding environmental, social and governance (ESG) issues.”).

¹¹⁷ FIN. ACCT. STANDARDS BD., FASB STAFF EDUCATIONAL PAPER, INTERSECTION OF ENVIRONMENTAL, SOCIAL, AND GOVERNANCE MATTERS WITH FINANCIAL ACCOUNTING STANDARDS (2021), https://fasb.org/page/ShowPdf?path=FASB_Staff_ESG_Educational_Paper_FINAL.pdf&title=FASB%20Staff%20Educational%20Paper-Intersection%20of%20Environmental.

¹¹⁸ IFRS, IFRS STANDARDS AND CLIMATE-RELATED DISCLOSURES (2019), <https://www.ifrs.org/content/dam/ifrs/news/2019/november/in-brief-climate-change-nick-anderson.pdf>.

tion to create a new standards board specifically for sustainability reporting in September 2020.¹¹⁹ Neither the FASB nor its parent structure, the Financial Accounting Foundation (FAF), have taken any comparable action.

One explanation for why FASB has yet to act in this area is that it is wary of unintended consequences and sensitive to companies' requests for time to adapt to new standards.¹²⁰ FASB is commonly criticized for moving too slowly in promulgating standards; this criticism is not specific to ESG. Another explanation—recently advanced by frustrated investors—is that FASB has become beholden to accounting firms and their clients rather than investors.¹²¹ Unfortunately, governance conflicts at accounting standard-setters are common. FASB is the third U.S. accounting standard-setter: The first two collapsed following concerns regarding their independence and conflicts of interest.¹²²

¹¹⁹ IFRS FOUND., CONSULTATION PAPER ON SUSTAINABILITY REPORTING (2020), <https://www.ifrs.org/content/dam/ifrs/project/sustainability-reporting/consultation-paper-on-sustainability-reporting.pdf>.

¹²⁰ FASB has developed an extensive ten-part process to update its standards. *Standard-Setting Process*, FIN. ACCT. STANDARDS BD., <https://www.fasb.org/Page/PageContent?pageId=%2Fabout-us%2Fstandardsettingprocess.html#:~:text=the%20FASB%20decides%20whether%20to,to%20solicit%20broad%20stakeholder%20input>. (last visited March 30, 2022). It is not unusual for the process to take over a decade. For example, the proposal for a new agenda item on revenue recognition was filed in 2002, but FASB issued the primary updated standard for accounting for revenue recognition in 2014. *See Online Comment Letters*, FIN. ACCT. STANDARDS BD., <https://www.fasb.org/jsp/FASB/Page/SectionPage&cid=1218220137090> (last visited Nov. 17, 2021) (showing that a “Proposal for a New Agenda Project on Issues Related to the Recognition of Revenues and Liabilities” was issued in 2002); *Revenue Recognition: ASU 2014-09 Revenue from Contracts with Customers (Topic 606)*, FIN. ACCT. STANDARDS BD., <https://fasb.org/page/PageContent?pageId=/Projects/recentlycompleted/revenue-recognition-summary.html> (last visited March 30, 2022) (announcing new standards on revenue recognition in 2014). Even then, firms did not have to comply with it until 2018 at the earliest. *Id.*

¹²¹ Letter from Jane B. Adams, *supra* note 116 (explaining that the accounting scandals at Enron and WorldCom revealed how FASB was “both glacially slow to update accounting standards and dominated by industry interests when it did act” and noting that “today, FASB remains both glacially slow and unresponsive to investor concerns”).

¹²² The first private standard-setting organization, the Committee on Accounting Procedure (“CAP”), was a committee of the American Institute of Accountants. CAP was in place from 1938 to 1959 but was criticized for its lack of uniform standards. *See* Stephen Zeff, *Evolution of US Generally Accepted Accounting Principles (GAAP)*, IAS PLUS, 3–7, <https://www.iasplus.com/en/binary/resource/0407zeffusgaap.pdf> (last visited Nov. 16, 2021). This criticism led to the creation of the Accounting Principles Board (“APB”), the second private standard-setting organization. *Id.* at 3, 7. However, the accounting community eventually lost confidence in the APB as well, leading to the establishment of a study group that recommended the APB be replaced with an independent, full-time standard-setting body. *See id.* at 7–16; JOHN C. BIEGLER ET AL., AM. INST. CERTIFIED PUB. ACCTS., ESTABLISHING FINANCIAL ACCOUNTING STANDARDS: REPORT OF THE STUDY ON ESTABLISHMENT OF ACCOUNTING PRINCIPLES 7–10, 15–17 (1972) (detailing the American Institute of Certified Public Accountants’ recommendation for the establishment of FASB and the events leading up to that recommendation).

III. PROPOSAL TO INTEGRATE HCM AND GAAP

In sum, current HCM reporting does not meet investors' needs. Accounting rules provide little information on labor costs, regulatory requirements under Regulation S-K are vague, and voluntarily disclosed information in sustainability reports lacks reliability, consistency, and comparability. Although FASB is aware of these concerns, it has yet to make any significant movement in this space. The result is that investors have limited insight into the value of a major asset.

We propose three changes to remedy this situation and better integrate HCM with GAAP. First, although labor costs should continue to be expensed, accounting standards should require a standardized note disclosure for labor costs. Second, in the MD&A section of the 10-K, managers should be required to discuss what portion of labor costs should be considered an investment in future productivity. Finally, the income statement should be disaggregated to disclose the labor costs included in each account. We discuss each proposal and potential objections below.

A. *Standardized Footnote*

The most straightforward approach to recording an asset is to record that asset on the balance sheet and depreciate (or amortize) the asset as its value declines. Issuers could take this approach with human capital. A firm could recognize an asset equal to the sum of total labor costs, including at a minimum salary, bonus, pension contributions, health care spending, perquisites, training costs, and equity compensation. Firms may also want to include workplace safety, mobility, and recruiting costs. The firm could then amortize this asset using a measure of employee tenure. Because tenure rates vary by category of employee,¹²³ amortization could be calculated similar to the approach used for real property, where different depreciation schedules are used for different types of property. In other words, labor costs and tenure rates could be disclosed for different types of employees (full-time, part-time, and contingent workers¹²⁴), and labor costs for each category could be capitalized and amortized separately.

¹²³ See Barry T. Hirsch, *Why Do Part-Time Workers Earn Less? The Role of Worker and Job Skills*, 58 *INDUS. & LAB. RELS. REV.* 525, 544 (2005).

¹²⁴ Categorizing employees can be controversial under state and federal law. For example, consider the litigation over whether Uber drivers in California are employees or independent contractors. See Robert W. Wood, *Uber & Lyft Ordered to Treat Drivers as Employees, Are Any Contractors Independent Now?*, *FORBES* (Aug. 11, 2020, 9:53 AM), <https://www.forbes.com/sites/robertwood/2020/08/11/uber—lyft-ordered-to-treat-drivers-as-employees-are-any-contractors-independent-now/?sh=392980fa5516>. However, accounting disclosures need not follow legal definitions. For example, the determination of whether an entity has control for accounting purposes differs from the standard applied in corporate law. See Note, *Controller Confusion: Realigning Controlling Stockholders and Controlled Boards*, 133 *HARV. L. REV.* 1706 (2020); DELOITTE, A ROADMAP TO COMMON-CONTROL TRANSACTIONS

The problem with this approach is that it conflicts with the principle of conservatism. Including labor costs as an asset on the balance sheet when those employees can leave (and without abundant evidence that labor costs are financially material) is a non-starter under GAAP rules and the political process underlying the standard-setting process. Instead, we propose to continue expensing employee compensation for GAAP purposes, but to provide investors with the information they need to capitalize human capital in their own valuation.

There is already precedent for this approach. Take R&D and operating leases, for example. Although R&D is expensed under GAAP rules, it is so common for investors to capitalize R&D that the process for capitalization is taught in basic investing and accounting courses, including the classes that we teach at Stanford and Columbia. Operating leases provide another example. In accounting, leases are classified as either financing or operating. A lease is “financing” if the arrangement is effectively a purchase of the underlying asset. If not, it’s “operating.” Because operating leases are viewed as more like rentals than purchases, they were not capitalized under accounting rules until recently.¹²⁵ Nonetheless, it was extremely common for investors and credit rating agencies to capitalize operating leases in their own financial models.¹²⁶

As a starting point, therefore, total labor costs and average tenure should be disclosed. The information would be most useful if disclosed in a standardized format—similar to the notes required for capital expenditures and PPE—rather than the unstandardized disclosure for R&D, which has been criticized for its opaqueness.¹²⁷ We propose a grid similar to that below—or perhaps multiple grids, one for each set of employees that fall in different pay brackets.¹²⁸ Of course, the more detailed the disclosure, the

2–3 (2016), <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/audit/ASC/Roadmaps/us-aers-roadmap-to-common-control-transactions-2016.pdf>.

¹²⁵ ACCOUNTING STANDARDS CODIFICATION: LEASES, TOPIC 842 (FIN. ACCT. STANDARDS BD. 2018), Leases No. 842 (FIN. ACCT. STANDARDS BD.). ASC 842 went into effect on January 1st, 2019, for public companies with December year ends. Under the prior standard, operating leases were not recorded on the balance sheet and were recorded only as rental expense on the income statement (i.e., they were not depreciated). John Briggs et al., *Variable Lease Payments: Implications under the New Lease Standard*, CPA J. (Feb. 2017), <https://www.cpajournal.com/2017/02/13/variable-lease-payments-implications-under-the-new-lease-standard/>.

¹²⁶ See, e.g., David Trainer, *Impact of Operating Leases Moving to Balance Sheet*, FORBES (May 1, 2018, 3:32 PM), <https://www.forbes.com/sites/greatspeculations/2018/05/01/impact-of-operating-leases-moving-to-balance-sheet/?sh=2ddc9bda2c55>; MOODY’S INVS. SERV., MOODY’S APPROACH TO GLOBAL STANDARD ADJUSTMENTS IN THE ANALYSIS OF FINANCIAL STATEMENTS FOR NON-FINANCIAL CORPORATIONS: PART I 2 (2006), https://care-mendoza.nd.edu/assets/152332/analytical_adjustments_part_i_updated.pdf.

¹²⁷ See, e.g., Rajgopal, *supra* note 17.

¹²⁸ One option would be to disclose the proposed grid for different pay buckets, where the pay buckets are determined based on income tax thresholds (e.g., below \$10,275; \$10,275 to \$41,775, etc.). *IRS Provides Tax Inflation Adjustments for Tax Year 2022*, IRS (Nov. 10, 2021), <https://www.irs.gov/newsroom/irs-provides-tax-inflation-adjustments-for-tax-year-2022>.

better the measurement of human capital.¹²⁹ We include turnover and tenure here to allow for calculation of amortization, but these metrics are sufficiently important that they are arguably material on their own.¹³⁰

TABLE 5. HUMAN CAPITAL DISCLOSURE TEMPLATE.

	Full-Time Employees	Part-Time Employees	Contingent Workers
Mean Tenure			
Employee Turnover			
Num. Employees			
	Total Compensation by Category		
Salary			
Bonus			
Pension			
Stock Awards			
Option Awards			
Non-equity incentive compensation			
Pension & Deferred Compensation			
Health Care			
Training			
Other			

With the exception of “Other,” “Healthcare,” and “Training,” the compensation categories above could be defined consistently with their use in the Summary Compensation Table for senior management compensa-

¹²⁹ For example, assuming that tenure rates vary by pay bracket, disclosure by bracket would lead to more accurate values.

¹³⁰ See, e.g., Ton Zeynep & Robert S. Huckman, *Managing the Impact of Employee Turnover on Performance: The Role of Process Conformance*, 19 *ORG. SCI.* 56, 57 (2008) (finding that “turnover is associated with decreased store performance”); James C. McElroy et al., *Turnover and Organizational Performance: A Comparative Analysis of the Effects of Voluntary, Involuntary, and Reduction-in-Force Turnover*, 86 *J. APPLIED PSYCH.* 1294, 1297 (2001) (suggesting that “turnover has undesirable consequences for organizational performance”); Michael C. Sturman, *Searching for the Inverted U-Shaped Relationship Between Time and Performance: Meta-Analyses of the Experience/Performance, Tenure/Performance, and Age/Performance Relationships*, 29 *J. MGMT.* 609, 626 (2003) (identifying non-linear relationships between tenure and performance across different types of jobs).

tion.¹³¹ Healthcare would be similarly easy to define, as accounting standards already contain a healthcare disclosure.¹³² “Training” and “Other” would require new definitions, and we suggest that firms be provided flexibility to define these terms in a way they believe most balances accuracy and cost minimization.

Assessing the financial materiality of this disclosure leads to a chicken and egg problem: without the disclosure, we cannot confirm that it is material, but we cannot require the disclosure without evidence that it is material. Nonetheless, although forced to rely on a patchwork of small sample and non-U.S. data, empirical research in finance and accounting provides evidence that the disclosure would be financially material.¹³³ And, consistently, psychology research has found that investing in employees leads to higher profitability.¹³⁴

B. *Discuss Investment in Labor in the MD&A*

Disclosure of the proposed grid would significantly improve investors’ ability to measure human capital, but it is not a complete solution. In our view, and in line with accounting principles more generally, only compensation costs that increase future productive growth should be capitalized. One way to think about this distinction is to differentiate between “maintenance” and “investment” labor costs, where maintenance costs allow the issuer to maintain its current productivity, and investment costs increase future productivity.

¹³¹ See, e.g., Amazon.com, Inc., Proxy Statement (Form DEF 14A) 69 (Apr. 15, 2021). Although one could argue that workforce compensation should be included in the proxy along with executive compensation, we believe workforce disclosures should be in the financial statements. Executive compensation disclosures are commonly motivated by agency concerns rather than financial materiality. See Paul G. Mahoney & Julia D. Mahoney, *The New Separation of Ownership and Control: Institutional Investors and ESG*, 2021 COLUM. BUS. L. REV. 840, 847. Our proposed grid is motivated by financial materiality, and we believe that it should be included in the financial statements, alongside other disclosures motivated by financial materiality.

¹³² See FIN. ACCT. STANDARDS BD., COMPENSATION–RETIREMENT BENEFITS–DEFINED BENEFIT PLANS–GENERAL (SUBTOPIC 715-20): DISCLOSURE FRAMEWORK–CHANGES TO THE DISCLOSURE REQUIREMENTS FOR DEFINED BENEFIT PLANS 6 (2018), <https://asc.fasb.org/imageRoot/40/118265440.pdf>.

¹³³ See sources cited *supra* note 38.

¹³⁴ See generally Suzanne J. Peterson & Fred Luthans, *The Impact of Financial and Nonfinancial Incentives on Business-Unit Outcomes over Time*, 91 J. APPLIED PSYCH. 156 (2006) (finding, using an experiment that randomly assigned fast-food franchises to control, “financial incentives” or “non-financial incentives” groups, that the franchises assigned to the financial incentives condition outperformed the control group for gross profit, drive-through times, and employee turnover); Chad H. Van Iddekinge et al., *Effects of Selection and Training on Unit-Level Performance Over Time: A Latent Growth Modeling Approach*, 94 J. APPLIED PSYCH. 829 (2009) (finding that employee training is positively and significantly related to customers’ experience, and that change in customers’ experience was positively and significantly related to changes in profits).

Investors commonly take this approach with PPE.¹³⁵ Although all PPE is capitalized, investors differentiate between capital expenditures necessary to replace and maintain existing competitive position and unit volume (“maintenance capex”) and expenditures that increase the asset base (“investment capex”).¹³⁶ In theory, maintenance capex is more akin to an expense, but investment capex is a future asset.

Applying this approach to human capital is difficult, as investors will have difficulty differentiating the portion of labor that should be considered investment. Therefore, we suggest that managers be required to discuss in the MD&A what portion of labor costs they consider to be investment in future profitability. Providing this type of information would improve investors’ ability to capitalize only the portion of labor costs that creates future revenues—and may create a positive social externality by forcing management to consider employees as a source of value creation, not just an expense.¹³⁷

C. *Income Statement Disaggregation*

In addition to breaking out disclosures, investors would benefit from disaggregated disclosure showing the portion of labor costs included in each income statement account. This proposal builds off a recent agenda item debated by the U.S. Financial Accounting Standards Advisory Council (FASAC),¹³⁸ and is consistent with IFRS’ requirement that firms break out the labor costs included in each account. Such a breakdown will serve two functions. First, breaking out the most significant operating cost—labor

¹³⁵ See Letter from Warren E. Buffett, Chairman of Berkshire Hathaway Inc., to the Shareholders of Berkshire Hathaway Inc. (Feb. 27, 1987), <https://www.berkshirehathaway.com/letters/1986.html>.

¹³⁶ The simplest approach to differentiate maintenance and investment capital expenditures is to divide total capital expenditures by total depreciation. A ratio equal to 1 suggests the firm is not investing in real property but is replacing property as it is depleted. The extent to which capital expenditures exceed total depreciation reflects the amount of investment in physical property. However, there are many ways to measure investment and maintenance capital expenditures. See Dave Ahern, *Maintenance Capital Expenditures: The Easy Way to Calculate It*, INVESTING FOR BEGINNERS (Oct. 7, 2020), <https://investingforbeginners.com/maintenance-capital-expenditures-aher/>.

¹³⁷ Because even investments in labor are expensed under current accounting rules, commentators have argued that firms may be less likely to invest in human capital because such spending hurts their bottom line. See Letter from Mark Warner, Senator, to Jay Clayton, Chairman, Sec. & Exch. Comm’n 3 (July 19, 2018), <https://www.scribd.com/document/384237385/2018-07-19-Letter-to-the-SEC-2018-Regulation-S-K>. Academics and politicians have long argued that accounting rules for R&D create similar perverse incentives. See also John R. Graham et al., *The Economic Implications of Corporate Financial Reporting*, 40 J. ACCT. & ECON. 3, 32–36 (2005). Although our proposal continues to expense labor costs, forcing managers to consider the extent to which labor costs are an investment could counteract the incentives created by accounting standards.

¹³⁸ *Meeting Recap*, FIN. ACCT. STANDARDS BD. (Sept. 30, 2021), <https://www.fasb.org/Page/PageContent?PageId=/About-us/advisory-groups/fasac/fasac-meeting-recap/fasac-meeting-recap-september-30-2021.html&isstaticpage=true&bcpath=TFff>.

costs—is a major step in allowing investors to understand firms’ cost structures. As discussed earlier, a better understanding of fixed, variable, and semi-variable costs is needed for valuation of net loss firms, and this proposal provides an important step in that direction.

Second, by showing how the firm’s workforce is distributed by line item in the income statement, investors can better understand the job function, skill set, and retention risk of the underlying employees. For instance, a firm that spends most of its labor costs on R&D or software development is more dependent on retaining that labor than a firm that spends most of its labor costs on distribution or in-store labor (assuming that distribution and in-store labor can be replaced and retrained at lower cost relative to software and R&D labor). Breaking down labor costs in each account would provide insight in this manner; for example, distribution and in-store labor would be concentrated in COGS. To illustrate the uneven distribution of labor costs, consider Microsoft’s reporting from the early 2000s. In the Employee Stock and Savings Plan footnote, Microsoft presented pro forma disclosures showing the effect of expensing stock options on different operating expenses. It showed that, if it were to expense stock options, operating expenses would have been nineteen percent higher in total. The allocation was not spread evenly across different expenses. Cost of revenue would have increased by only seven percent, but research and development would have increased by forty-two percent!¹³⁹

D. *Objections*

We believe there is evidence that our proposals would lead to improved valuation, particularly for human capital firms. The disclosures would provide consistent and comparable information across firms. And, as this information would be subject to the same standards and procedures of reporting integrity as financial statements generally, the disclosures would be reliable. However, there are obvious concerns and objections. We discuss these objections below.

1. *Costs & Unintended Consequences*

Perhaps the most significant objection is the potential cost of providing this disclosure, where cost includes both the costs of production and verification, and the potential social costs of disclosure. First, consider the cost to produce and verify the data. Recall the recent “pay ratio” disclosure mandated by Dodd-Frank Section 953(b), which required companies to report

¹³⁹ See Microsoft Corp., Annual Report (Form 10-K), Note 16 to Financial Statements, at 32 (Sept. 5, 2004) <https://www.sec.gov/Archives/edgar/data/0000789019/000119312503045632/d10k.htm>. Unfortunately, Microsoft ceased reporting this information after its fiscal year 2003. See, e.g., Microsoft Corp., Annual Report (Form 10-K), Note 13 to Financial Statements 38 (Sept. 1, 2004).

the ratio of the median employee's pay to that of the CEO.¹⁴⁰ When asked to provide the disclosure, companies objected, saying that it would be extremely expensive to identify the median employee's pay given their software limitations. Indeed, the SEC estimated the rule could cost \$1.3 billion in initial compliance costs and \$526 million annually in ongoing costs.¹⁴¹ Certainly accounting and human resource software products have expanded capability in the ten years since the Dodd-Frank Act, and numerous conversations suggest that the information we requested above would be available from most issuers' human resource departments.¹⁴² Nonetheless, FASB should consult with issuers and software developers to determine whether slight modifications to the disclosure requirements would be immaterial to investors but would reduce compliance costs.

Second, consider the potential social costs to companies. A firm that pays its labor less than deemed appropriate could find itself boycotted and/or subject to intense social media or political scrutiny, potentially requiring significant managerial time and energy. And this type of social cost may be only the tip of the iceberg. For example, one prior study, coauthored by one of us, found that mandating disclosure of data on the gender pay gap had a modest effect on the pay gap, but that firms may have tried to close the gap through selective dismissals.¹⁴³

As highlighted by the above study, the effect of increased transparency is not straightforward.¹⁴⁴ For example, it is possible that spotlighting labor costs will cause issuers to pay more attention to reducing those costs, leading to social costs and unintended consequences. Another potential unintended consequence is that employees' job satisfaction may decrease, as they would have more information regarding their peers' compensation.¹⁴⁵ Such lower

¹⁴⁰ Dodd-Frank Wall Street Reform and Consumer Protection Act § 953, Pub. L. No. 111-203, 124 Stat. 1376, 1899–1907 (2010).

¹⁴¹ LaDawn Naegle & R. Randall Wang, *SEC Adopts Pay Ratio Rule*, LEXOLOGY (Aug. 7, 2015), <https://www.lexology.com/library/detail.aspx?g=c2d34e09-4ccb-4194-8582-19a614b7df1c-19a614b7df1c>.

¹⁴² Much of the information in our proposed disclosure should already be collected by firms in order to issue annual W-2 forms or other tax statements. Further, there are costs to *not* providing the disclosure. In addition to arguably opaque costs such as reduced pricing efficiency, investors routinely incur direct costs to obtain this data. e.g., scraping Glassdoor or LinkedIn data and/or purchasing human resource data.

¹⁴³ Aneesh Raghunandan & Shiva Rajgopal, *Mandatory Gender Pay Gap Disclosure in the UK: Did Inequality Fall and Do These Disclosures Affect Firm Value?* 30 (Columbia Bus. Sch., Working Paper, 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3865689.

¹⁴⁴ For example, disclosures that were intended to reduce executive compensation by providing additional transparency have arguably caused an increase in executive compensation. Kevin J. Murphy & Michael C. Jensen, *The Politics of Pay: The Unintended Consequences of Regulating Executive Compensation* (Ctr. for L. & Soc. Sci., Working Paper No. CLASS18-8, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3153147.

¹⁴⁵ David Card et al., *Inequality at Work: The Effect of Peer Salaries on Job Satisfaction* 28–29 (Nat'l Bureau of Econ. Rsch., Working Paper No. 16396, 2011), https://www.nber.org/system/files/working_papers/w16396/w16396.pdf (finding that employees who learn they receive below median pay report lower pay and job satisfaction, but that employees who receive above-median compensation do not report higher satisfaction).

job satisfaction could lead to other outcomes, such as increased turnover. Although such unintended consequences are concerning, the goal of accounting disclosures is not to achieve or avoid a particular social outcome, but to provide investors with the information they need to analyze firm value.

2. One-Size-Fits-All

A second objection is that mandatory “one-size-fits-all” disclosures are over-inclusive. Different information is material for different firms, and some of our proposed disclosures may not be material for all firms. Disclosure of such nonmaterial information is costly, both to the issuers that must produce it and to investors who suffer from “information overload.”¹⁴⁶ Thus, a natural question is why we should mandate disclosure rather than allow management to determine what is material. This is an important question, particularly as we propose an additional note to the financial statements, and notes are less widely used than the financial statements themselves.¹⁴⁷ We provide two answers below.

First, to reduce the risk of false positives, FASB recently amended its definition of materiality under GAAP to provide issuers with more flexibility regarding what is material. Under Concepts No. 8, omission of an item is material if it is *probable* that a reasonable person would have been influenced by the decision.¹⁴⁸ By contrast, under the prior Concepts No. 2, omission of an item was material if a reasonable person *could* have been influenced by the decision.¹⁴⁹ The new standard further clarifies that materiality is entity specific.¹⁵⁰ Research has shown that auditors do not blindly apply a 5% threshold to determine materiality; instead, auditors consider the

¹⁴⁶ Troy A. Paredes, *Blinded by the Light: Information Overload and its Consequences for Securities Regulation*, 81 WASH. U. L.Q. 417, 417–21 (2003) (arguing that investors are provided with too much information, causing them to become confused and ignore valuable disclosure).

¹⁴⁷ See Dave Ahern, *Financial Statement Footnotes: Treasure Trove of Information from the 10-K*, INVESTING FOR BEGINNERS (Sept. 4, 2020), <https://investingforbeginners.com/financial-statement-footnotes-daah/> (“[C]ompan[ies] sometimes include [] items in the footnotes, knowing that investors or analysts won’t read them.”).

¹⁴⁸ FIN. ACCT. STANDARDS BD., AMENDMENTS TO STATEMENT OF FINANCIAL ACCOUNTING CONCEPTS NO. 8, at 3 (2018), https://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=117617111614&acceptedDisclaimer=true (“The omission or misstatement of an item in a financial report is material if, in light of surrounding circumstances, the magnitude of the item is such that it is probable that the judgment of a reasonable person relying upon the report would have been changed or influenced by the inclusion or correction of the item.”); Marc Siegel, *For the Investor: Disclosure Effectiveness—How Materiality Fits In*, FIN. ACCT. STANDARDS BD., <https://www.fasb.org/cs/ContentServer?c=Page&cid=1176167771326&d&pageName=FASB%2FPage%2FSectionPage>.

¹⁴⁹ FIN. ACCT. STANDARDS BD., *supra* note 148. (removing language stating that “[i]nformation is material if omitting it or misstating it could influence decisions that users make on the basis of the financial information of a specific reporting entity”).

¹⁵⁰ *Id.*

context and authoritative guidance.¹⁵¹ Therefore, the flexibility provided by the new definition seems likely to reduce the number of false positives (disclosure of immaterial information).

Second, as discussed above, allowing management to disclose what they consider meaningful has led to a lack of comparability. For investors to incorporate human capital in valuation, the information needs to be consistent and comparable. Although a one-size-fits-all disclosure will undoubtedly lead to some false positives, it is likely to reduce false negatives (non-disclosure of material information) and to provide significant benefits in terms of comparability across a wider range of companies.

3. Redundancy

Another concern is that our proposed disclosure could be redundant. One might argue that the value of labor already shows up in the income statement through metrics such as return on invested capital (ROIC), making HCM disclosures redundant.¹⁵² Although true that the value of labor will, over time, be captured through ratio analysis, it is incorrect to say that this makes HCM disclosures redundant. ROIC and similar metrics are influenced by any number of factors, and the point of fundamental analysis is to identify the drivers of these metrics (ROIC alone provides no information on which segments or assets are generating value).¹⁵³ Our proposed disclosure would enable investors to flag stocks with high or undervalued human capital, and to better identify exactly how the firm creates value. A somewhat bizarre logical extension of this objection would be that we need no disclosures on PPE or other assets already reported on the balance sheet today, as the value associated with these assets is captured through time-series analysis of the income statement.

Another objection is that our approach is redundant given the already-existing HCM disclosures through Regulation S-K and voluntary sustainability reports. Aside from the prior concerns noted regarding the quality of these disclosures, we believe that our proposal provides distinct information. To date, the human capital movement has largely focused on the disclo-

¹⁵¹ Preeti Choudhary et al., *Auditors' Quantitative Materiality Judgments: Properties and Implications for Financial Reporting Reliability*, 57 J. ACCT. RSCH. 1303, 1345 (2019) (“[A]uditors make materiality judgments using a variety of materiality bases and percentages and apply weights to those bases that are consistent with the application of qualitative and contextual factors specified in authoritative guidance. These results support the view that the professional judgment-based process of determining materiality thresholds is operating as intended.”).

¹⁵² See Stephen H. Penman, *Accounting for Intangible Assets: There is Also an Income Statement*, 45 J. ACCT., FIN. & BUS. STUD. 358, 360–63 (2009).

¹⁵³ We are more sympathetic to the counterargument: that our proposals do not go far enough. Particularly given the growth of net loss companies, we believe it necessary to consider whether to re-conceptualize the entire reporting system. We support increased disclosure of managerial accounting information that would allow investors to better understand firms' costs structures and margins. However, the perfect should not be the enemy of the good.

sure of human capital metrics, such as turnover, pay-ratio, and the many other metrics discussed in Part III.C. We believe the approach suggested by this Article will be easier for investors to incorporate in standard valuation models. However, our approach need not be the exclusive remedy for human capital disclosures, and disclosure of additional HCM metrics could be complementary with our proposed changes.

CONCLUSION

This Article argues that accounting for labor should be updated to reflect changing market dynamics. Over the past few decades, we have seen significant growth in so-called human capital firms—those firms that rely on talented employees to create value. The effect of this trend is that human capital is now likely the biggest asset missing from firms' balance sheets. In addition, we have seen growth in the number of firms that report a net loss; in 2020, over half of firms traded on U.S. exchanges reported a net loss. The failure to disaggregate operating costs, the most important of which is labor, impairs investors' ability to estimate expected margins and future profitability for these loss firms.

In the absence of reporting on human capital under GAAP, two alternate sources of information have appeared. First, firms must report material information on human capital under Regulation S-K, and second, many firms voluntarily provide information on human capital in annual sustainability reports. However, consistent with prior work, we conclude that these disclosures are insufficient. The information lacks consistency, comparability, and reliability. Moreover, these disclosures are largely metric-based (for example, percentage of female managers). Although these metrics may capture aspects of culture, it is unclear how the information should be used in valuation.

We argue that HCM should be integrated with GAAP reporting. We propose three changes. First, labor costs should be disclosed in the notes to the financial statements using a grid such as the one proposed in this Article. This disclosure would allow investors to capitalize and amortize labor costs in their valuation models. Second, managers should be required to discuss in the MD&A what portion of labor costs reflect investment in human capital that will improve future profitability. Finally, consistent with recent proposals at FASAC, the income statement should be disaggregated to provide more visibility into operating expenses, of which the most important is labor. These changes would provide investors with more insight in valuing human capital and loss firms.