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How Discretionary Decision-Making Impacts the Financial Performance and Legal Disclosures of S&P 500 Funds

Bernard S. Sharfman[†] & Vincent Deluard^{††}

INTRODUCTION

A stock market index is “a statistical compilation of the share prices of a” list of stocks.¹ This list typically “represent[s] a particular market or sector of the U.S. stock market.”² For example, the S&P 500 index, the focus of this article, is a market value-weighted compilation of the common stock issued by five hundred companies that are considered to represent “[B]lue-[C]hip America,” i.e., “the most significant large-capitalization firms in the leading U.S. industries.”³

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¹ *Stock Market Index*, THE FREE DICTIONARY BY FARLEX, <https://www.thefreedictionary.com/Stock+Market+Indices> [<https://perma.cc/2RRN-GAVV>].

² *Fast Answers, Market Indices*, U.S. SEC. & EXCH. COMM’N, <https://www.sec.gov/fast-answers/answersindiceshtm.html> [<https://perma.cc/R2WE-D3J8>].

³ Gabriel Rauterberg & Andrew Verstein, *Index Theory: The Law, Promise and Failure of Financial Indices*, 30 YALE J. ON REGUL. 1, 18–19 (2013).

A stock market index fund is a mutual fund⁴ or exchange traded fund⁵ (ETF) “in which the fund manager’s goal is to track some underlying [stock market] index as closely as possible.”⁶ For example, the SPDR® S&P 500® ETF TRUST, the largest ETF⁷ with approximately \$443 billion of assets under management (AUM) as of January 13, 2022, tracks the S&P 500 index.⁸ Investor interest in indexed mutual funds and ETFs has never been higher. S&P Global, the parent of S&P Dow Jones Indices, reports that almost \$5.4 trillion worth of assets track the S&P 500 index.⁹ For investors who do not believe that money managers can beat the market, this makes perfect sense. Index funds allow investors to potentially earn market returns and diversify away unsystematic risk at a very low cost.¹⁰ Sometimes, there is no cost to invest in index funds.¹¹ The S&P 500, like all

⁴ U.S. SEC. & EXCH. COMM’N, MUTUAL FUNDS AND ETFs: A GUIDE FOR INVESTORS 4 (2016), <https://www.sec.gov/investor/pubs/sec-guide-to-mutual-funds.pdf> [<https://perma.cc/ZT43-2AQW>] (according to the SEC, “[a] mutual fund is an SEC-registered open-end investment company that pools money from many investors and invests the money in stocks, bonds, short-term money-market instruments, other securities or assets, or some combination of these investments. The combined securities and assets the mutual fund owns are known as its portfolio, which is managed by an SEC-registered investment adviser. Each mutual fund share represents an investor’s proportionate ownership of the mutual fund’s portfolio and the income the portfolio generates.”).

⁵ *Id.* at 6 (according to the SEC, “ETFs are SEC-registered investment companies that offer investors a way to pool their money in a fund that makes investments in stocks, bonds, other assets or some combination of these investments and, in return, to receive an interest in that investment pool. Unlike mutual funds, however, ETFs do not sell individual shares directly to, or redeem their individual shares directly from, retail investors. Instead, ETF shares are traded throughout the day on national stock exchanges and at market prices that may or may not be the same as the NAV of the shares.”).

⁶ Adriana Z. Robertson, *The (Mis)Uses of the S&P 500*, at 4 (Dec. 5, 2020) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3205235 [<https://perma.cc/U8QY-MGXD>].

⁷ *Largest ETFs: Top 100 ETFs by Assets*, ETF DATABASE, <https://etfdb.com/compare/market-cap/> [<https://perma.cc/Z4QD-GWNY>].

⁸ *SPDR® S&P 500® ETF Trust*, STATE ST. GLOB. ADVISERS, <https://www.ssga.com/us/en/intermediary/etfs/funds/spdr-sp-500-etf-trust-spy> (AUM as reported on January 13, 2022).

⁹ *Annual Survey of Assets: As of December 31, 2020*, S&P GLOB., <https://www.spglobal.com/spdji/en/documents/index-news-and-announcements/spdji-indexed-asset-survey-2020.pdf> [<https://perma.cc/D4TV-CQ5B>]. “Indexed assets represent assets in institutional funds, ETFs, retail mutual funds, and other investable products that seek to replicate or match the performance of the respective index.” *Id.* at n.1.

¹⁰ In theory, the financial performance of an index fund, assuming the index it uses accurately tracks the market it is meant to represent, should be quite satisfactory for most investors. This positive perspective begins with two assertions that make up what is referred to as William Sharpe’s “equality”: “(1) before costs, the return on the average actively managed dollar will equal the return on the average *passively managed* dollar and (2) after costs, the return on the average *actively managed* dollar will be less than the return on the average *passively managed* dollar.” William F. Sharpe, *The Arithmetic of Active Management*, 47 FIN. ANALYSTS J. 7, 7–9 (1991) (emphasis added).

¹¹ See *Fidelity’s ZEROSM Total Market Index Fund*, FIDELITY, <https://fundresearch.fidelity.com/mutual-funds/fundfactsheet/31635T708> [<https://perma.cc/3U59-XLBD>] (identifying an expense ratio of 0.00% as of July 3, 2020).

of the S&P US Indices, is maintained by its US Index Committee (Index Committee, or Committee).¹² The Committee has almost total discretion in determining the constituent companies (addition and deletions) that make up the S&P 500 at any point in time.¹³

In the United States, the Securities and Exchange Commission (SEC) utilizes a “full and fair disclosure”¹⁴ approach to regulate investment funds that track the S&P 500. The SEC’s authority to mandate disclosures flows from statutory law, namely the Securities Act of 1933 (Securities Act). The required disclosures are primarily found in Form N-1A.¹⁵ While this article is focused exclusively on the requirements of US law, its analysis and discussion should have significant application in any country that uses a disclosure approach.

This article explores Form N-1A disclosure issues created by the Index Committee’s discretionary decision-making for investment funds that track the S&P 500. To identify these legal issues, this article explores two recent discretionary decisions of the Index Committee: (1) the decision to delay the inclusion of Tesla into the S&P 500, and (2) the 2017 decision to exclude all multi-class (“dual-class”) shares from the index that were not already grandfathered in at the time the decision was made. In investigating these two decisions, this article provides empirical evidence demonstrating that the Index Committee’s selection process has reduced the expected and actual returns of investment funds that track the S&P 500. This empirical evidence creates Form N-1A concerns (legal issues) about whether funds that track the S&P 500 are providing adequate *principal risk* disclosures and whether the S&P 500 index can be used as an *appropriate broad-based index* for benchmarking purposes.¹⁶

Based on our empirical research and analysis, this article recommends a new principal risk disclosure, referred to as *selection risk*, which would be included in the *statutory* and *summary* prospectuses of investment funds that track the

¹² S&P DOW JONES INDICES: S&P U.S. INDICES METHODOLOGY 31 (June 2021) [hereinafter S&P DOW JONES INDICES METHODOLOGY].

¹³ See *infra* Part I.

¹⁴ Securities Act of 1933, ch. 38, pmb., 48 Stat. 74, 74 (codified as amended at 15 U.S.C. § 77a).

¹⁵ This is a form the SEC designed “to provide investors with information that will assist them in making a decision about investing in an investment company eligible to use the Form.” See U.S. SEC. & EXCH. COMM’N, FORM N-1A, <https://www.sec.gov/files/formn-1a.pdf> [<https://perma.cc/Q8JL-PERM>].

¹⁶ S&P GLOB., 2020 INVESTOR FACT BOOK: S&P DOW JONES INDICES ANNUAL SURVEY OF ASSETS 49 (Oct. 14, 2020), https://lufax.q4cdn.com/548020347/files/doc_downloads/investor-fact-book/2021/SP-Global-2020-Investor-Fact-Book-210804.pdf [<https://perma.cc/63B4-4SZF>] (“Benchmarked assets represent assets in actively managed funds where the performance of the active manager is measured against the respective [benchmark] index.”).

S&P 500. This new disclosure will provide investors with the necessary information to evaluate whether index funds that track the S&P 500 are appropriate for their investment needs. Moreover, this article argues that the S&P 500 index is no longer *an appropriate broad-based index* for purposes of Form N-1A benchmarking. This article also makes recommendations on how the discretionary decision-making of the Index Committee that governs the S&P 500 can be improved, enhancing the potential returns to investors and reducing the potential legal liability for funds that make inadequate disclosures. For example, this article recommends that the Index Committee implement an additional rule: a market value rule that can be used to justify the relatively prompt inclusion of companies like Tesla and rationalize the inclusion of additional dual-class share companies without significant negotiation with its asset manager, investment adviser, and finance professional clients. Essentially, if the market value of a stock is consistently above the required amount for multiple periods, it should be included in the index.

This article follows in the footsteps of articles written by Rauterberg, Verstein,¹⁷ and Robertson.¹⁸ Like those writings, this article focuses on the implications of discretionary decision-making of an index manager. However, unlike those articles, this article focuses exclusively on legal issues that arise with investment fund disclosures and, unlike a recent article by Mahoney and Robertson,¹⁹ does not tackle the issue of when an index manager, in this case the Index Committee, should be considered an investment adviser under the Investment Advisers Act of 1940.

This article contributes to the literature on index managers and the SEC's disclosure policy for open-end investment funds (funds that issue new shares to meet investor demand). Most importantly, this article will guide the investment decisions of tens of millions of investors who are currently invested in, or are considering investing in, funds that track the S&P 500. Part I describes the discretionary decision-making powers of the Index Committee. Part II provides

¹⁷ See generally Rauterberg & Verstein, *supra* note 3, at 1 (arguing "human discretion and value judgment to be essential ingredients in" financial indices).

¹⁸ See generally Adriana Z. Robertson, *Passive in Name Only: Delegated Management and "Index" Investing*, 36 YALE J. ON REGUL. 795 (2019) (empirically demonstrating that index creators incorporate a significant amount of managerial discretion in their indices); Robertson, *supra* note 6 (empirically finding that the S&P 500 is not a passive index).

¹⁹ See Paul G. Mahoney & Adriana Robertson, *Advisers by Another Name*, 11 HARV. BUS. L. REV. 311, 313 (2021).

empirical evidence demonstrating that investment funds that track the S&P 500 have provided suboptimal results for investors. In this Part, we focus on the Index Committee's delay in including Tesla into the S&P 500 index and its 2017 decision to exclude companies with dual-class shares that were not grandfathered in. Part III discusses the implications of our empirical work and provides recommendations on how the Index Committee can implement changes to mitigate the discussed problems. Part IV discusses the law applicable to investment funds that track the S&P 500 index. Part V recommends new legal disclosures that identify the risks involved in investing in funds that track the S&P 500 and the discontinuance of its use as an "appropriate" index for disclosure purposes.

I. THE DISCRETIONARY AUTHORITY OF THE S&P 500'S INDEX COMMITTEE

Rauterberg and Verstein observe that "human discretion" and "value judgment" are integral parts of even the most objective of indexes.²⁰ For example, even if stock selection is based on purely mechanical rules, the decision to select one mechanical rule over another is a function of discretion. Overlaying such rules is discretionary decision-making by index providers that either modifies the rules or makes exceptions to them.²¹ The S&P 500 index is no exception to the use of such discretion. Li, Liu, and Wei, using the S&P's "index methodology describing both the minimum eligibility and the selection criteria for adding stocks to the S&P500 index," was only "able to explain about 62% of the membership status (which firms belong to the index and which do not at a given point in time) and only about 3% of the addition decisions (which firms are added to the index in a given quarter) from 1980 to 2018."²² Robertson, using data from January 2015 through December 2017, conservatively estimates "that the discretionary portion of the S&P 500 represents roughly 5% of the total value of the Index."²³ The Index Committee is the source of this discretionary decision-making.²⁴

²⁰ Rauterberg & Verstein, *supra* note 3, at 1.

²¹ See Robertson, *supra* note 18, at 843 ("Every one of the over 600 indices in my comprehensive sample—and the over 550 in my index fund subsample—gave the index provider at least *some* amount of discretion. Even the most mechanical indices—those that follow strict quantitative rules—allow for some discretion on the part of the index committee.")

²² Kun Li et al., *Is Stock Index Membership for Sale?* 3 (NBER Working Paper Series, Working Paper No. 29365, 2021), https://www.nber.org/system/files/working_papers/w29365/w29365.pdf [<https://perma.cc/XRT8-8A3S>].

²³ Robertson, *supra* note 6, at 1.

²⁴ See S&P DOW JONES INDICES METHODOLOGY, *supra* note 12, at 31.

A. *Basic Rules of the S&P 500*

The Index Committee has rules in place that guide it in the selection process. However, the Committee always has the authority to make exceptions when its members feel it is appropriate.²⁵ The primary rules for selection are as follows:²⁶

- Index Universe: All constituents must be US companies and are selected from the S&P Total Market Index.²⁷ All eligible US common equities can be included.²⁸ Real estate investment trusts (REITs) are also eligible for inclusion.²⁹
- Constituent Count: The S&P Index has a “fixed constituent company count of” five hundred (the index has slightly more than five hundred constituent securities because of multi-class shares issued by the same company).³⁰
- Constituent Selection: “[S]election is *at the discretion of the Index Committee . . .*”³¹
- Domicile:
 - Only common stocks of U.S. companies are eligible. For index purposes, a U.S. company has the following characteristics:
 1. Files [Form] 10-K annual reports.
 2. The U.S. portion of fixed assets and revenues constitutes a plurality of the total, but need not exceed 50%. When these factors are in conflict, fixed assets determine plurality. Revenue determines plurality when there is incomplete asset information. Geographic information for revenue and fixed asset allocations are determined by the company as reported in its annual filings.”
 3. “The primary listing must be on an eligible U.S. exchange . . .”³²

If the second criteria “is not met or is ambiguous,” the Index Committee “may still deem” a particular company to be

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.* at 10.

²⁸ *Id.* at 6.

²⁹ *Id.*

³⁰ *Id.* at 10, 42.

³¹ *Id.* at 10 (emphasis added).

³² *Id.* at 6.

a U.S. company for index purposes if its primary listing, headquarters and incorporation are all in the U.S. and/or a “domicile of convenience[.]” . . . In situations where the only factor suggesting that a company is not a U.S. company is its tax registration in a “domicile of convenience” or another location chosen for tax-related reasons, [the Index Committee] normally determines that the company is still a U.S. company. *The final determination of domicile eligibility is made by the Index Committee* which can consider other factors including, but not limited to, operational headquarters location, ownership information, location of officers, directors and employees, investor perception and other factors deemed to be relevant.³³

- Eligibility Market Cap: Companies must have an unadjusted market cap (product of shares outstanding and price) of \$13.1 billion or greater and must have a float-adjusted market cap (excludes shares that are not available to the public) that is at least 50 percent of the unadjusted minimum market cap threshold.³⁴ This minimum market cap amount is reviewed quarterly.³⁵
- Financial Viability: Companies must have positive as-reported earnings (earnings before any subsequent revisions) over the most recent quarter, as well as over the most recent four quarters (summed together).³⁶
- Sector Representation:

Sector balance, as measured by a comparison of each GICS [Global Industry Classification Standard] sector’s weight in an index [such as the S&P 500] with its weight in the S&P Total Market Index, in the relevant market

³³ S&P DOW JONES INDICES METHODOLOGY, *supra* note 12, at 6 (emphasis added). Domiciles of convenience include off-shore financial centers such as Bermuda, Channel Islands, Gibraltar, Isle of Man, Luxembourg, Liberia, and Panama, and numerous islands in the Caribbean. S&P DOW JONES, EQUITY INDICES POLICIES & PRACTICES METHODOLOGY 32–33 (2021), <https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-equity-indices-policies-practices.pdf> [<https://perma.cc/92B8-S5KR>]. Incorporating in these domiciles may provide a means to avoid taxation and legal scrutiny. See Johannes Petry et al., *Steering Capital: The Growing Private Authority of Index Providers in the Age of Passive Asset Management*, 28 REV. INT’L POL. ECON. 152, 166 (2021). According to Petry, Fichtner, and Heemskerk, twenty members of the S&P 500 make use of this clause. *Id.* They also argue that in this way the “S&P DJI could in effect be enabling and legitimizing aggressive tax planning and potentially even tax evasion by multinational corporations.” *Id.*

³⁴ S&P DOW JONES INDICES METHODOLOGY, *supra* note 12, at 7, 36.

³⁵ *Id.* at 7.

³⁶ *See id.* at 8.

capitalization range, is also considered in the selection of companies for the indices.³⁷

- Index Composition: Changes to index composition in response to corporate actions and market developments are made on an as-needed basis. “There is no scheduled reconstitution.”³⁸ “Index additions and deletions are announced with at least three business days advance notice. Less than three business days’ notice may be given at the discretion of the Index Committee.”³⁹

- Deletions:

A company is deleted from the index if it is involved in a merger, acquisition, or significant restructuring such that it no longer meets the eligibility criteria . . . A company that substantially violates one or more of the eligibility criteria . . . may be deleted . . . at the Index Committee’s discretion.⁴⁰

Moreover, the S&P Dow Jones Indices has a policy that turnover in index membership should be avoided when possible. Specifically, at times a stock may appear to temporarily violate one or more of the addition criteria. However, the addition criteria are for addition to an index, not for continued membership. “As a result, an index constituent that appears to violate criteria for addition to that index is not deleted unless ongoing conditions warrant an index change.”⁴¹

- Constituent Migration: Current S&P Composite 1500 constituents, such as the S&P MidCap 400 or S&P SmallCap 600, can be migrated to the S&P 500 as long as they meet the unadjusted company level market capitalization eligibility criteria for the new index. Migrations “do not need to meet the financial viability, liquidity, or 50% of the respective index’s unadjusted company level minimum market capitalization threshold criteria.”⁴²

³⁷ *Id.* at 10.

³⁸ S&P DOW JONES INDICES METHODOLOGY, *supra* note 12, at 26.

³⁹ *Id.*

⁴⁰ *Id.* at 27 (emphasis added).

⁴¹ *Id.* at 9.

⁴² *Id.*

- Weighting: It is “weighted by float-adjusted market capitalization.”⁴³ This adjustment means that the index only counts the shares that are available to the public.
- Adequate Liquidity and Reasonable Price:

Using composite pricing and volume, the ratio of annual dollar value traded (defined as average closing price [over the period] multiplied by historical volume . . .) to float-adjusted market capitalization should be at least 1.00, and the stock should trade a minimum of 250,000 shares in each of the six months leading up to the evaluation date.⁴⁴
- Initial Public Offering (IPO) Seasoning: Initial public offerings (IPOs) “should be traded on an eligible exchange for at least 12 months before being considered for addition to [the] index.”⁴⁵
- Multi-Class Shares: Companies with dual-class share class structures are not eligible for inclusion in the S&P 500.⁴⁶ Existing constituents “with multiple share class structures are grandfathered in”⁴⁷
- Announcements: “Announcements of additions and deletions for the S&P 500 . . . are made at 5:15 PM Eastern Time.”⁴⁸
- Index Committee Discretion: The Committee “may revise index policy covering rules for selecting companies, treatment of dividends, share counts or other matters.”⁴⁹ The Committee “reserve[s] the right to make exceptions when applying the methodology if the need arises.”⁵⁰

B. The Discretion of the Index Committee

The last point in Section I.A explicitly states what the rules imply—the Index Committee has almost total discretion in determining the constituent companies (additions and deletions) that make up the S&P 500 at any point in time. Therefore, these

⁴³ *Id.* at 3.

⁴⁴ *Id.* at 8.

⁴⁵ *Id.* at 41.

⁴⁶ *See id.* at 7; *infra* Section II.B.

⁴⁷ S&P DOW JONES INDICES METHODOLOGY, *supra* note 12, at 7.

⁴⁸ *Id.* at 32.

⁴⁹ *Id.* at 31.

⁵⁰ *Id.*

rules appear to be more like default rules, where exceptions can be made when a specific fact pattern warrants, rather than pure mechanical rules. According to David Blitzer, former chairman of the Index Committee, “we use guidelines for stock selection—size, liquidity, minimum float, profitability and balance with respect to the market—to assure that the index is an accurate picture of the stock market.”⁵¹ Moreover, “[i]f the only requirements for maintaining an index were getting the numbers right each day, a fixed rule book would suffice. But when the market doesn’t play by the rules, a rigid rule book won’t work.”⁵²

Adding fuel to this discretionary fire is the rule—even though it is also most likely subject to Index Committee discretion—that arbitrarily limits the S&P 500 to five hundred companies.⁵³ As observed by Robertson, this limitation means that there will likely be a significant number of companies that qualify for inclusion in the S&P 500 but cannot be included. Robertson found that between January 1, 2015 and December 31, 2017, “on the median day, there is a surplus of over 100 securities that could be on the Index but are not, representing over 20% of the total number of securities on the Index.”⁵⁴ In sum, right from the start, the Index Committee has a lot of discretion in deciding who makes the cut for inclusion.

The following are some examples of how this discretion has been applied. In 2008, the committee kept AIG, a company rocked by the financial crisis and requiring a federal government bailout, in the S&P 500, even though the company could not meet the public float requirement of at least 50 percent.⁵⁵ The Committee decided to maintain AIG in the S&P 500 because it feared that the company’s deletion would destabilize the stock markets.⁵⁶ In April 2019, the Index Committee changed the rules for admission to the S&P 500, eliminating the 50 percent minimum public float rule and instead setting a minimum float-adjusted market value for inclusion to the S&P 500.⁵⁷ This allowed T-Mobile, 63 percent owned by Deutsche Telekom, to join the S&P 500.⁵⁸

⁵¹ David Blitzer, *Inside the S&P 500: An Active Committee*, INDEXOLOGY BLOG (Aug. 7, 2014), <https://www.indexologyblog.com/2014/08/07/inside-the-sp-500-an-active-committee/> [<https://perma.cc/55SQ-4U4S>].

⁵² *Id.*

⁵³ See S&P DOW JONES INDICES METHODOLOGY, *supra* note 12, at 10.

⁵⁴ Robertson, *supra* note 6, at 13.

⁵⁵ See Petry et al., *supra* note 33, at 165 (citing Blitzer, *supra* note 51).

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.* (citing Andrew Barry, *T-Mobile Gains Admission to S&P 500 Under Relaxed Rules*, BARRON’S (July 10, 2019, 10:13 AM), <https://bit.ly/3Kwv0CJ> [<https://perma.cc/97ZT-GJV9>]).

Further, it is not uncommon for the Index Committee to change the S&P 500's methodology.⁵⁹ Robertson found that “between January 1, 2015 (the first date for which the change log is available) and April 2018, the S&P 500 methodology changed at least 8 times. The power to change the methodology is itself vested in the Index Committee.”⁶⁰ It is also not uncommon for the Index Committee to make exceptions to its guidelines. In 2018, Nektar Therapeutics was added to the S&P 500 even though it failed to meet the Committee's financial viability criterion.⁶¹ Soon afterward, however, the company was dropped from the S&P 500 and placed back where it came from—the S&P MidCap 400 Index.⁶² In 2020, the Index Committee used its discretion to delay inclusion of Tesla until after it had achieved a market value of well over \$600 billion.⁶³ In addition, in 2017, the Index Committee succumbed to pressures from the institutional investors that make up the shareholder empowerment movement and implemented changes to their indexes that limited the presence of dual-class shares.⁶⁴

II. AN EMPIRICAL INVESTIGATION INTO THE COMMITTEE'S DISCRETIONARY DECISION-MAKING

This article finds that the Index Committee's selection process is not optimal in terms of expected returns versus risk. This conclusion is based on our analysis of the Index Committee's decision to delay the inclusion of Tesla into the S&P 500 and its decision to exclude all multi-class (“dual-class”) shares from the index that were not already grandfathered in at the time the decision was made.

A. *Tesla*

On June 29, 2010, Tesla's first day of trading after going public, Tesla closed with a market capitalization of approximately \$2.2 billion.⁶⁵ This was almost twice as much as the market capitalization of Eastman Kodak, then the S&P 500 company with the smallest market value.⁶⁶ Since then, the market value of Tesla

⁵⁹ S&P DOW JONES INDICES METHODOLOGY, *supra* note 12, at 38–43 (Appendix C details methodology changes since January 1, 2015.).

⁶⁰ Robertson, *supra* note 6, at 11 (footnotes omitted).

⁶¹ *Id.* at 22.

⁶² *Id.* at 22–23.

⁶³ *See infra* Section II.A.

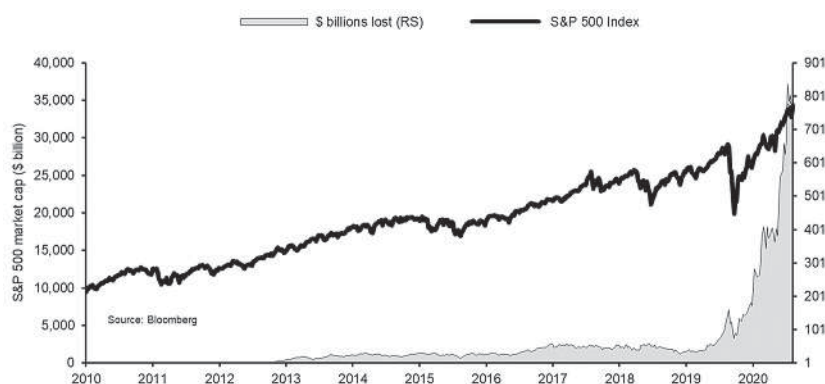
⁶⁴ *See infra* Section II.A.

⁶⁵ Erick Schonfeld, *Tesla IPO Shares Pop, Drop, and Rally. Market Values It at \$1.7 Billion.*, TECHCRUNCH (June 29, 2010, 12:00 PM), <https://techcrunch.com/2010/06/29/tesla-ipo-1-7-billion/> [<https://perma.cc/3U3Q-AXKQ>].

⁶⁶ Calculations based on Bloomberg data. Mr. Deluard downloaded historical S&P 500 index components from Bloomberg.com along with their market capitalization at the time.

has skyrocketed. On December 18, 2020, the closing price of Tesla was \$695 per share. This meant that the value of Tesla at the close had a market value of \$659 billion, or 2.051% of the closing value of S&P 500 without Tesla.⁶⁷ This market value was used by the Committee in determining Tesla's market capitalization weighting when it officially included Tesla in the index on the following Monday.⁶⁸ The market cap weighting used for Tesla's inclusion was 1.69%.⁶⁹ **Figure 1** demonstrates the effect of the delay in not including Tesla into the S&P 500 index on the first day of its trading as an IPO. **Table 1** shows how an investor in a fund that tracks the S&P 500 likely would have fared if Tesla would have been included in the index on its first trading day.

Figure 1. *The Tesla Inclusion Effect: S&P 500 Index With and Without Tesla.*



The grey area represents the difference between the market capitalization of the S&P 500 index and its theoretical capitalization if it had included Tesla. All of the weights of existing components were reduced to make room for Tesla. This is the least biased measurement, as the “kicking off” of another constituent company would create another active source of active return which would blur the “Tesla effect.” That is, the difference in capitalization would not just be due to the Tesla effect, but also to the removal of another stock. Further, the simplest decision would have been to remove the smallest stock in the index, but that would create a lot of churn, which is not consistent with the Committee's goal of minimizing trading costs.

⁶⁷ See *infra* Table 1.

⁶⁸ Al Root, *Tesla Will Be the Most Valuable Company Ever Added to the S&P 500*, BARRON'S (Dec. 18, 2021), <https://www.barrons.com/articles/why-friday-is-big-for-tesla-stock-ahead-of-monday-epic-index-inclusion-51608237677> [https://perma.cc/UAQ5-T4DC].

⁶⁹ Yun Li, *Tesla Shares Fall 6% as It Enters the S&P 500 with 1.69% Weighting, Fifth Largest*, CNBC (Dec. 21, 2020, 4:24 PM), <https://www.cnbc.com/2020/12/20/tesla-enters-the-sp-500-with-1point69percent-weighting-in-the-benchmark-fifth-largest.html> [https://perma.cc/AB64-H8F4].

Table 1. *S&P's Growing Tesla Problem.*

Date	% loss from not including Tesla	Lost market cap (in \$ billions)
July 2, 2010	0.000%	0
July 1, 2011	0.995%	1
June 29, 2012	0.007%	1
June 28, 2013	0.067%	10
June 27, 2014	0.146%	26
June 26, 2015	0.157%	30
June 24, 2016	0.136%	25
June 23, 2017	0.271%	59
June 22, 2018	0.215%	52
June 21, 2019	0.136%	35
June 19, 2020	0.678%	181
July 17, 2020	0.984%	274
August 14, 2020	1.042%	303
September 11, 2020	1.190%	344
October 9, 2020	1.331%	401
November 6, 2020	1.330%	404
December 4, 2020	1.768%	566
December 18, 2020	2.051%	659

If Tesla had been inclusion included into the index on June 29, 2010, the market value of the S&P 500 would have been approximately 2.05% greater than it was at the close on December 18, 2020. On an annualized basis, Tesla's inclusion on June 29, 2010 likely would have yielded the S&P index fund investor an additional 21 basis points (0.21%) in return per year while adding only 3.5 basis points (0.035%) to the annualized standard deviation of the index.⁷⁰ Of course, we could not expect the Index Committee to add Tesla on the first day of its trading, a time when Tesla had yet to establish itself as a large blue-chip company in any sense of the term. However, what if the Index Committee had a rule allowing Tesla or any other company to be included after recording an average market value greater than the S&P 500's minimum requirement for four quarters in a row? If so, then Tesla would have been eligible for inclusion on June 29, 2011. At that time, the company had a market value of \$2.9 billion, 2.1 times the value of the smallest member of the index, RadioShack.

⁷⁰ The additional 21 basis points return was calculated by annualizing the difference in compound return between the actual S&P 500 index and the hypothetical S&P 500 index which would have included Tesla's at full market capitalization on the IPO date. The additional 3.5 basis points in annualized standard return was calculated by annualizing the difference in standard deviation between the actual S&P 500 index and the hypothetical S&P 500 index which would have included Tesla's at full market capitalization on the IPO date.

If the Committee had included Tesla into the index on June 29, 2011, this would have yielded the S&P index fund investor an estimated additional 24 basis points (0.24%) in return per year while adding only 4.7 basis points (.047%) to the annualized standard deviation of the index.

B. *Dual-Class Shares*

Some companies issue common stock with unequal voting rights. These shares are called dual-class shares. Typically, even though there is some variation in how this is done, a company will create a dual-class share structure in an IPO by “issu[ing] a class of common stock to the public that carr[ies] one vote per share (ordinary shares), while reserving a separate class, a super-voting class, that provides insiders with at least ten votes per share.”⁷¹ As a result, a “wedge” is “created between a company’s cash flows and voting rights such that voting control, and thereby control of the company and its board, can be maintained by insiders—such as the founders—without having to own a majority of the company’s common stock outstanding.”⁷²

As argued by Adena Friedman, president and CEO of Nasdaq, Inc., the issuance of shares with unequal voting rights is a desirable result of private ordering:

One of America’s greatest strengths is that we are a magnet for entrepreneurship and innovation. Central to cultivating this strength is establishing multiple paths entrepreneurs can take to public markets. Each publicly-traded company should have flexibility to determine a class structure that is most appropriate and beneficial for them, so long as this structure is transparent and disclosed up front so that investors have complete visibility into the company. Dual class structures allow investors to invest side-by-side with innovators and high growth companies, enjoying the financial benefits of these companies’ success.⁷³

Friedman’s argument is an application of the broader argument that the private ordering of corporate governance arrangements is considered efficient and desirable because it allows market-driven corporate governance arrangements to be implemented. That is, it “allows the internal affairs of each corporation to be tailored to its own attributes and qualities, including its personnel, culture, maturity as a business, and governance

⁷¹ Bernard S. Sharfman, *A Private Ordering Defense of a Company’s Right to Use Dual Class Share Structures in IPOs*, 63 VILL. L. REV. 1, 7 (2018).

⁷² *Id.*

⁷³ Adena Friedman, *The Promise of Market Reform: Reigniting America’s Economic Engine*, HARV. L. SCH. F. ON CORP. GOVERNANCE (May 18, 2017), <https://corpgov.law.harvard.edu/2017/05/18/the-promise-of-market-reform-reigniting-americas-economic-engine/> [<https://perma.cc/84TR-J4ME>].

practices.”⁷⁴ In effect, “observed governance choices [such as dual-class shares] are the result of value-maximizing contracts between shareholders and management.”⁷⁵

Corporate law supports the private ordering of corporate governance arrangements, including dual-class shares. The law enables private ordering and the issuance of shares with unequal voting rights by providing default, optional rules.⁷⁶ For example, Delaware General Corporation Law (DGCL) section 212(a) provides for a default rule of one share, one vote.⁷⁷ However, DGCL section 151(a) allows for the use of dual-class share structures if provided for in the company’s certificate of incorporation.⁷⁸

Yet, despite dual-class shares arguably being the wealth enhancing result of private ordering and supported by corporate law, the public issuance and trading of dual-class shares has been the subject of numerous activist attacks over the past century.⁷⁹ For example, in 1926, the New York Stock Exchange implemented a ban on nonvoting stock that lasted until 1984.⁸⁰ The ban was a result of the activism of a leading corporate governance scholar of the time, William Ripley, a Harvard professor of political economy.⁸¹ Ripley was an early champion of the idea of one share, one vote, who found support from both the press and then-President Calvin Coolidge in his condemnation of the issuance of nonvoting shares by high-profile companies, such as Dodge Brothers, Industrial Rayon Corporation, A&W Root Beer, and Fox Theaters.⁸²

Driving this perennial disdain for dual-class shares is the belief held by many individuals and institutions that, despite the wealth benefits of private ordering, the issuance of common stock must only allow for one share, one vote with no exceptions. Those who have this belief are commonly associated with what

⁷⁴ Commissioner Troy A. Paredes, Statement at Open Meeting to Propose Amendments Regarding Facilitating Shareholder Director Nominations, U.S. SEC. & EXCH. COMM’N (May 20, 2009), <http://www.sec.gov/news/speech/2009/spch052009tap.htm> [<https://perma.cc/GDL2-PA56>].

⁷⁵ David Larcker et al., *The Market Reaction to Corporate Governance Regulation*, 101 J. FIN. ECON. 431, 431 (2011).

⁷⁶ See *Williams v. Geier*, 671 A.2d 1368, 1381 (Del. 1996) (“At its core, the Delaware General Corporation Law is a broad enabling act which leaves latitude for substantial private ordering, provided the statutory parameters and judicially imposed principles of fiduciary duty are honored.”).

⁷⁷ See DEL. CODE ANN. tit. 8, § 212(a) (West, Westlaw through ch. 284 of the 151st Gen. Assemb. (2021–2022)).

⁷⁸ See *id.* § 151(a).

⁷⁹ Sharfman, *supra* note 71, at 8–10.

⁸⁰ *Id.* at 8.

⁸¹ *Id.*

⁸² *Id.*

can be referred to as the shareholder empowerment movement.⁸³ The use of dual-class shares stymies shareholder empowerment by creating a controlling shareholder who owns less than a majority of common stock outstanding.

The most recent calls for eliminating dual-class shares arose from Snap Inc.'s 2017 issuance of nonvoting stock. This lack of voting rights was a first for an IPO.⁸⁴ This offering was seen as crossing a line in the sand for some institutional investors, such as large public pension funds,⁸⁵ and provided an opportunity for activists to once again call for a sharp reduction in the use of dual-class shares.⁸⁶

As a result of activism surrounding Snap Inc.'s issuance of nonvoting stock, two leading index providers—S&P Dow Jones Indices, the licensor of the S&P 500 index, and FTSE Russell—succumbed to pressures from institutional investors and implemented changes to their indexes that limited the presence of dual-class shares in their indexes.⁸⁷ Not surprisingly, the Council of Institutional Investors, the trade organization representing public pension funds, rejoiced, with one of its

⁸³ See Sharfman, *supra* note 71, at 1 n.1. Shareholder empowerment is strongly related to the concept of “shareholder democracy,” a term coined in the mid-1900s that “carried the normative message that greater shareholder participation in corporate governance was both possible and desirable.” Harwell Wells, *A Long View of Shareholder Power: From the Antebellum Corporation to the Twenty-First Century*, 67 FLA. L. REV. 1033, 1069 (2015).

⁸⁴ Sharfman, *supra* note 71, at 19.

⁸⁵ See, e.g., Hazel Bradford, *Snap IPO Igniting Furor; Institutions Not Pleased*, PENSIONS & INVS. (Mar. 20, 2017, 1:00 AM), <https://www.pionline.com/article/20170320/PRINT/303209977/snap-ipo-igniting-furor-institutions-not-pleased> [<https://perma.cc/B5NX-48EC>] (“Leading the charge against trimming or eliminating public shareholder voting rights is the Washington-based Council of Institutional Investors, representing \$3 trillion in combined assets and 120 members, including CalSTRS, the \$311 billion California Public Employees’ Retirement System and other large public pension funds, plus 50 money manager associate members that manage more than \$20 trillion in assets.”). As stated by David Beatty, Professor of Strategic Management at the University of Toronto’s Rotman School of Management: “The largest institutional investors have this religious dogma that one share, one vote is the only way to manage the affairs of a publicly traded corporation.” Eric Lam, *Bombardier Aside, Canada Dual-Class Shares Are Top Gainers*, BLOOMBERG NEWS (Apr. 28, 2016), <https://www.bloomberg.com/news/articles/2016-04-28/bombardier-aside-canada-dual-class-shares-are-top-gainers> (last visited Apr. 11, 2022).

⁸⁶ Sharfman, *supra* note 71, at 3.

⁸⁷ Press Release, S&P Dow Jones Indices, S&P Dow Jones Indices Announces Decision on Multi-Class Shares and Voting Rules (July 31, 2017), https://www.spice-indices.com/idpfiles/spice-assets/resources/public/documents/561162_spdjmultipclasssharesandvotingrulesannouncement7.31.17.pdf [<https://perma.cc/J2J4-9NUH>] (announcing that the S&P Dow Jones Indices has decided to exclude all new dual-class share offerings from the S&P Composite 1500 and its components, “the S&P 500, S&P MidCap 400, and S&P SmallCap 600”); see *FTSE Russell Voting Rights Consultation—Next Steps*, FTSE RUSSELL GRP. 3 (July 2017), http://www.ftse.com/products/downloads/FTSE_Russell_Voting_Rights_Consultation_Next_Steps.pdf [<https://perma.cc/4H8A-FWYZ>] (explaining that the FTSE Russell bars companies from inclusion in its benchmark indexes unless more than 5 percent of the voting rights are in the hands of public shareholders); see also *Minimum Voting Rights Hurdle FAQ v1.6*, FTSE RUSSELL GRP. 3 (2021), https://www.ftse.com/products/downloads/Minimum_Voting_Rights_Hurdle_FAQ.pdf [<https://perma.cc/XV2C-2J4P>].

representatives stating that “[i]ndex providers’ action responds to a void left by years of inaction from stock exchanges, regulators and global regulatory coordinators.”⁸⁸

The FTSE Russell now bars companies from inclusion in its benchmark indexes unless more than 5 percent of the voting rights are in the hands of public shareholders.⁸⁹ In essence, nonvoting shares, such as those issued by Snap Inc., will not be included. Moreover, “[e]xisting constituents with a developed market nationality will have a five year grandfathering period to comply and the rule will therefore apply from 2022.”⁹⁰ The S&P Dow Jones Indices went even further, excluding all *new* dual-class share offerings from the S&P Composite 1500 and its components, the S&P 500, S&P MidCap 400, and S&P SmallCap 600.⁹¹ This means that dual-class shares issued by companies, such as Snap Inc., Square, Roku, and Zoom, among many other possible big winners, are no longer eligible to be included in these indexes. So far, the Index Committee of the S&P 500 has implemented this rule without exception.

1. The Decision to Exclude Was Suboptimal

Prior to deciding to exclude dual-class shares, the Index Committee had a significant amount of information available that would weigh against pursuing such a rule of exclusion. In 2016, Bloomberg reported that “Canadian stocks with unequal voting rights, often used by families to control companies with only a minority stake, have posted annualized returns of 12 percent over the past 10 years, almost double the 7.1 percent return of their single-class peers.”⁹² Most importantly, Bloomberg found that “U.S. [dual-class] stocks have been even better performers, with an average annualized return of 13 percent over the same period.”⁹³

In April 2017, State Street Global Advisors issued a report, which included the following empirical finding:

We found that over a 10-year period—from 2007 to date, as a group, S&P 500 companies that have issued non-voting or low-voting shares have outperformed counterparts that issue shares with equal voting

⁸⁸ Letter from Kenneth A. Bertsch, Exec. Dir., Council of Institutional Invs., to Members of the MSCI Equity Index Comm., HARV. L. SCH. F. ON CORP. GOVERNANCE (May 9, 2018), <https://corpgov.law.harvard.edu/2018/05/16/cii-comment-letter-to-msci-on-unequal-voting-structures/> [<https://perma.cc/7TGN-8DVK>].

⁸⁹ *FTSE Russell Voting Rights Consultation—Next Steps*, *supra* note 87, at 4.

⁹⁰ *Id.*

⁹¹ See Press Release, S&P Dow Jones Indices, *supra* note 87.

⁹² Lam, *supra* note 85.

⁹³ *Id.*

right by over 26%, cumulatively. Consequently, an S&P 500 Index that excluded those companies would have underperformed the full index by 1.86% over the 10-year period.⁹⁴

Even without such empirical analysis, it should have been obvious to the Index Committee that constituent companies with dual-class shares had been overperforming for a long time. For example, Bebchuk and Kastiel reported that as of July 11, 2016, the S&P 500 included thirty-two dual-class companies with a market capitalization of \$2.79 trillion.⁹⁵ Moreover, based on our analysis, as of that date, dual-class share companies made up only 6.4% of the index's five hundred constituents, but such companies represented approximately 14.3% of the S&P 500's entire market capitalization of \$19.4 trillion.

The Committee should also have been aware that the biggest individual winners in the S&P 500 have been consistently overrepresented by dual-class share companies such as Alphabet, Berkshire Hathaway, Facebook, Comcast, and Nike. As of December 30, 2016, the market values of these five best performers were quite stunning: Alphabet (\$531.97 billion), Facebook (\$331.59 billion), Berkshire Hathaway (\$401.33 billion), Comcast (\$164.90 billion), and Nike (\$84.17 billion).⁹⁶ Together, these five companies represented a market value of

⁹⁴ STATE STREET GLOBAL ADVISORS, SHAREHOLDER RIGHTS IN THE AGE OF SNAP, MARKET COMMENTARY 3 (2017), <https://docplayer.net/56433180-Shareholder-rights-in-the-age-of-snap.html> (last visited Apr. 11, 2022) (internal cross-reference omitted). MSCI reported similar results in a report issued approximately a year after the decision was made: "unequal voting stocks in aggregate outperformed the market over the period from November 2007 to August 2017, and that excluding them from [MSCI] market indexes would have reduced the indexes' total returns by approximately 30 basis points per year over our sample period." Dimitris Melas, *Putting the Spotlight on Spotify: Why Have Stocks with Unequal Voting Rights Outperformed?*, MSCI (Apr. 3, 2018), <https://www.msci.com/www/blog-posts/putting-the-spotlight-on/0898078592> [<https://perma.cc/5A3D-SMXT>]. For an excellent discussion of how the exclusion has impacted the cost of capital of dual-class share companies, see Andrew Winden & Andrew Baker, *Dual Class Index Exclusion 2* (Rock Ctr. for Corp. Governance Stanford Univ., Paper No. 233, 2018) ("We do not observe any statistically significant abnormal returns in the stock prices of either included or excluded firms as a result of the S&P announcement, suggesting that exclusion is not expected to have a significant adverse cost of capital effect on firms that elect to list with a dual-class stock structure in the future and that the sanction is ineffective.").

⁹⁵ Lucian A. Bebchuk & Kobi Kastiel, *The Untenable Case for Perpetual Dual-Class Stock*, 103 VA. L. REV. 585, 594 (2017).

⁹⁶ *Nike Market Cap: Historical Market Cap Data*, YCHARTS, https://ycharts.com/companies/NKE/market_cap (as of December 30, 2016); *Meta Platforms Market Cap: Historical Market Cap Data*, YCHARTS, https://ycharts.com/companies/FB/market_cap (as of December 30, 2016); *Berkshire Hathaway Market Cap: Historical Market Cap Data*, YCHARTS, https://ycharts.com/companies/BRK.A/market_cap (as of December 30, 2016); *Comcast Market Cap: Historical Market Cap Data*, YCHARTS, https://ycharts.com/companies/CMCSA/market_cap (as of December 30, 2016); *Alphabet Market Cap: Historical Market Cap Data*, YCHARTS, https://ycharts.com/companies/GOOG/market_cap (as of December 30, 2016).

approximately \$1,513.96 trillion, or 7.8%, of the S&P 500's total market capitalization at end of year 2016 (\$19.27 trillion).⁹⁷

2. Positive Skewness in Stock Market Returns

Hendrik Bessembinder observed that there is a significant amount of positive skewness in the distribution of returns of individual public companies (common stock) that have made up the stock market from July 1926 to December 2016.⁹⁸ He found that “in terms of lifetime dollar wealth creation” (defined as “accumulated December 2016 value in excess of the outcome that would have been obtained if the invested capital had earned one-month Treasury bill returns”),⁹⁹ “the best-performing [4 percent] of listed companies explain the net gain for the entire US stock market since 1926, as other stocks collectively matched Treasury bills.”¹⁰⁰ Bessembinder's results also showed that the sum of the individual contributions to lifetime dollar wealth creation provided by the top fifty companies represented almost 40 percent of total lifetime dollar wealth creation.¹⁰¹ Thus, the returns earned by a relatively small number of best-performing companies are critical to the stock market earning returns above short-term Treasuries.

The identification of positive skewness in stock market returns and the desire not to have a stock portfolio that only matches the returns earned on Treasury bills means the Index Committee should be seeking out big winners, not looking for ways to keep them out of the S&P 500. This means looking at dual-class shares favorably, not with an eye to excluding them. As stated by Bernard Sharfman,

[w]hen a company is allowed by stock market participants to launch its IPO with a dual-class share structure—thereby providing insiders with an extraordinary amount of protection from outsider shareholder interference—it is a signal to the market that the company is expected to be one of those best performers.¹⁰²

This expectation is based on what Goshen and Hamdani refer to as “idiosyncratic vision.”¹⁰³ This vision has two parts:

⁹⁷ *S&P 500 Market Cap*, YCHARTS, https://ycharts.com/indicators/sp_500_market_cap (as of December 30, 2016).

⁹⁸ Hendrik Bessembinder, *Do Stocks Outperform Treasury Bills?*, 129 J. FIN. ECON. 440, 440–41, 451 (2018).

⁹⁹ *Id.* at 454 tbl.5.

¹⁰⁰ *Id.* at 440.

¹⁰¹ *Id.* at 454 tbl.5.

¹⁰² Bernard S. Sharfman, *ESG Investing Under ERISA*, 36 YALE J. ON REGUL. BULL. 112, 126 (2020).

¹⁰³ Zohar Goshen & Assaf Hamdani, *Corporate Control and Idiosyncratic Vision*, 125 YALE L.J. 560, 567 (2016).

First, it reflects the parts of the entrepreneur's business idea that outsiders may be unable to observe or verify. This could be because the entrepreneur cannot persuade investors that she is the best person to continue running the firm or that her business plan will produce superior returns. Second, it reflects the above-market pecuniary return expected by the entrepreneur, which, if the business succeeds, will be shared on a pro rata basis between the entrepreneur and investors. Importantly, idiosyncratic vision need not concern an innovation or new invention: as long as the entrepreneur has a plan that she subjectively believes will result in above-market returns, she has idiosyncratic vision.¹⁰⁴

Of course, there is no guarantee that companies with dual-class shares will be overrepresented as big winners in the future as they have in the past, but it appears that the Index Committee was taking a big risk in hoping that this would not be the case. It turns out that this risk, as discussed below, was realized.

3. Our Empirical Evidence on Dual-Class Shares

To measure the effect of the Committee's July 2017 decision, the authors of this article built a portfolio of companies with multiple-class share structures that were not in the S&P 500 index as of January 1, 2021, despite the fact that their market capitalization exceeded that of the smallest S&P 500 index stocks at the end of each of the past four quarters.

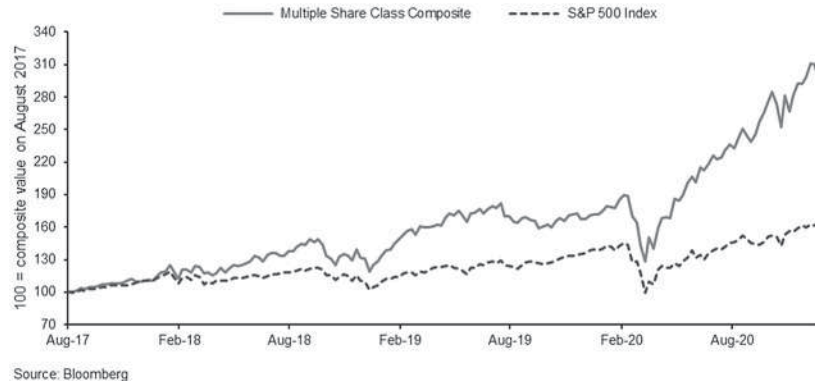
As shown in *Figure 2*, a cap-weighted composite of these multiple-class share stocks returned 196.5% since August 2017, versus a total return of 64.2% for the S&P 500 index. This performance gap may not be entirely due to the exclusion decision because some of these stocks may have been ineligible for inclusion due to other considerations, such as not meeting the float requirement, a lack of positive accounting earnings, etc. Moreover, the authors' financial backtest (a simulation which "seeks to estimate the performance of a strategy or model if it had been employed during a past period")¹⁰⁵ was limited to some extent by the lack of historical data on companies with multiple-class shares that were delisted or acquired prior to January 1, 2021.¹⁰⁶

¹⁰⁴ *Id.* Not all dual-class shares come with idiosyncratic vision. Dhruv Aggarwal, Ofer Eldar, Yael Hochberg, and Lubomir P. Litov report that while founders are the most common controllers of dual-class firms, there are other types of controllers. See Dhruv Aggarwal et al., *The Rise of Dual-Class Stock IPOs*, NAT'L BUREAU OF ECON. RSCH. 3 (Working Paper No. 28609, 2021), <http://www.nber.org/papers/w28609> [<https://perma.cc/C668-C685>].

¹⁰⁵ *Backtesting*, WIKIPEDIA (Jan. 3, 2022), <https://en.wikipedia.org/wiki/Backtesting> [<https://perma.cc/NVM3-W229>].

¹⁰⁶ Bloomberg only provides current data on the multiple-class status of stocks. As a result, we could not measure the performance of stocks that had a multiple-class structure prior to January 2021 and were subsequently delisted or acquired. This

Figure 2. *Performance of Multi-Class Shares Versus the S&P 500 Index Since the 2017 Exclusion Decision.*



Excluded dual-class share companies that met the S&P 500's market cap requirement represented, on average, 2.2% of the index's market capitalization since August 2017. These stocks outperformed the S&P 500 by 80.5% ($296.5/164.2 - 1 = 80.5\%$) from August 2017 to December 31, 2020. We can therefore estimate that their exclusion from the S&P 500 led to approximately a 1.7% ($2.2\% \times 80.5\% = 1.7\%$) reduction in the value of funds that closely track the index. As of February 17, 2021, thirty dual-class share stocks had a market value greater than the S&P 500's minimum requirement of \$9.8 billion, including thirteen companies that had market values over \$40 billion.¹⁰⁷

4. What Motivated the Dual-Class Share Exclusion?

Hirst and Kastiel provide a number of viable reasons why an index provider like the S&P Dow Jones Indices would not want to exclude dual-class share companies from an index such as the S&P 500:

First, index providers have reason to be concerned about federal regulation if they intervene too strongly in the corporate governance choices of their constituents. Second, the exclusion tool does not fit well with the business model of index providers and their preference not to

limitation most likely caused some survivorship bias in our study. Because the backtesting period is fairly short and the returns of the basket were primarily driven by a handful of large stocks with very high returns, such as Square, Zoom, and Twilio, the authors do not believe that this limitation had a significant impact on the results.

¹⁰⁷ These companies were Zoom, Square, Blackstone, Workday, Twilio, VMware, Roku, Dell, Veeva Systems, Carvana, Chewy, KKR & Co., and Trade Desk Inc.

limit their clients' access to the investable universe of public companies. Third, index providers face a divergence in the views of their clients regarding exclusion rules, making them reluctant to adopt strong exclusion rules. Fourth, index providers also prefer to avoid sudden extreme changes in the composition of their indexes that would require substantial and costly portfolio rebalancing by their clients. Finally, index providers face some (albeit mild) competitive pressures that may reduce their inclination to adopt very restrictive exclusions.¹⁰⁸

A sixth reason for not excluding dual-class companies from indexes such as the S&P 500, and one that this article proposes, is that the index providers will not want to financially harm the beneficial investors who buy shares in the mutual funds and ETFs that track the S&P 500 index. If indexes implement an exclusionary rule that causes financial harm to beneficial investors and those investors are made aware, they may move their investment to other funds that do not track the S&P 500 or any other S&P index. On the other hand, "where particular arrangements are strongly disfavored by their clients [institutional investors, not the beneficial investors], index providers have an incentive to respond to those preferences by adopting an exclusion rule."¹⁰⁹ This reality is an acknowledgment of what many people forget: index providers are for-profit organizations and must act according to what is best for their own shareholders.¹¹⁰

This is a particularly relevant issue for managing the S&P 500. The index generates an incredible amount of licensing fee revenue for the S&P Dow Jones Indices, making the Index Committee particularly sensitive to the demands of its clients. For example, the mega-fund SPDR® S&P 500® ETF TRUST pays the S&P an annual licensing fee of 0.03% of the daily size of the Trust plus an annual fee of \$600,000.¹¹¹ This amounts to approximately \$100 million per year. But these payments are only the tip of the iceberg. S&P Global, the parent of S&P Dow Jones Indices, reported that approximately \$5.4 trillion in assets were tracking the S&P 500.¹¹² If so, given a 0.03% licensing fee, this means that the index provides S&P Dow Jones Indices with over \$1.5 billion per year in revenue!¹¹³

¹⁰⁸ Scott Hirst & Kobi Kastiel, *Corporate Governance by Index Exclusion*, 99 B.U. L. REV. 1229, 1234 (2019).

¹⁰⁹ *Id.*

¹¹⁰ *Id.* at 1245.

¹¹¹ STATE ST. GLOB. ADVISERS, SPDR S&P 500® ETF TRUST, PROSPECTUS 31 (Jan. 28, 2022), <https://www.ssga.com/us/en/institutional/etfs/resources/doc-viewer#spy&prospectus> [<https://perma.cc/XK6C-2U52>].

¹¹² *S&P 500 Overview*, S&P DOW JONES INDICES, <https://www.spglobal.com/spdji/en/indices/equity/sp-500/#overview> (as of December 31, 2020).

¹¹³ For a general discussion of the revenue generating power of the Big Three (S&P Dow Jones Indices, MSCI, and FTSE Russell), see Petry et al., *supra* note 33, at 153.

Given the S&P 500's financial importance to S&P Global, any Committee decisions regarding exclusion rules, such as excluding additional companies with dual-class shares, must consider how that decision will impact the retention of institutional investor clients. Therefore, the feedback that the Index Committee received from these clients on dual-class shares must have been very strong in favor of creating an exclusion rule, threatening defections, and outweighing any and all of the six objections described above.

III. IMPLICATIONS OF OUR EMPIRICAL ANALYSIS

When an investor chooses to invest in a fund that tracks the S&P 500, she is willing to take the risk and receive the expected return associated with a well-diversified portfolio of large cap blue-chip stocks domiciled in the United States. In doing so, the investor is seeking returns on a stock portfolio commensurate with the level of systematic risk of this market or securities (exclusive of foreign-based companies listed and traded in the United States) and a minimal amount of unsystematic risk.¹¹⁴

However, even if an index fund has the correct risk profile, the investor also needs to know if the index is doing its best to maximize the return associated with the level of risk being taken. That is, given its constraints, is the index providing index fund investors with a portfolio of stocks that approximates a "Markowitz efficient portfolio."¹¹⁵ Such a portfolio will be efficient in the sense that "it is impossible to obtain a greater expected return without increasing the variance [of the expected returns], or if it is impossible to reduce the variance without giving up expected return."¹¹⁶ In the context of the S&P 500, the issue is whether the constituent

¹¹⁴ For the seminal work discussing systematic versus unsystematic or nonsystematic risk, see generally William F. Sharpe, *Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk*, 19 J. FIN. 425 (1964). We surmise that the S&P 500 excludes foreign companies because they are either denominated in a foreign currency or at least generate a lot of their revenues in a foreign currency, creating additional risk for investors with US dollar liabilities (most pension funds, insurers, and retail investors looking to retire in the United States).

¹¹⁵ According to Investopedia, "[t]he Markowitz efficient set is a portfolio with returns that are maximized for a given level of risk based on mean-variance portfolio construction." *Markowitz Efficient Set*, INVESTOPEDIA (July 21, 2020), <https://www.investopedia.com/terms/m/markowitzefficientset.asp> [<https://perma.cc/CG4G-6M9H>]. See generally Harry Markowitz, *Portfolio Selection*, 7 J. FIN. 77 (1952) (discussing the two stages of portfolio selection). For a good general discussion of Markowitz's article, see Terin Miller, *What Is Modern Portfolio Theory (MPT) and Why Is It Important?*, THESTREET (Oct. 5, 2020), <https://www.thestreet.com/investing/modern-portfolio-theory-14903955> [<https://perma.cc/RF2S-4GDH>].

¹¹⁶ Haim Levy & Marshall Sarnat, *The Mean Variance Criterion and the Efficiency Frontier*, 9 ECON. INQUIRY 46, 46 (1971).

companies that make up the index are optimal given that there is discretion in selecting those companies.

The authors' empirical evidence argues that the Index Committee is not making optimal selections. Given this understanding, this article delves into the implications of the authors' empirical work on Tesla and dual-class shares, and makes recommendations on how to mitigate the problems faced by the Index Committee.

A. *Tesla*

In regard to Tesla, perhaps the Index Committee's decision to delay its inclusion was based on the concern that it would add additional volatility to the returns of the S&P 500. The authors' empirical analysis confirms that this possible expectation was realized to a small extent. However, it would not have been unreasonable for the Committee to have included Tesla much earlier because of its consistently high market valuation, allowing its inclusion to make the S&P 500 more representative of the market based on market value.¹¹⁷ Moreover, it is hard to understand why the leading electric car maker in the world, as well as the largest US automaker by market value, was left out of the S&P 500 for so long. Whatever the Committee's reason, if it would have included Tesla several years before it finally decided to do so, the returns to investors of funds that track the S&P 500 would have significantly increased.

As discussed below, possibly adding to investors' significant losses as a result of the delayed inclusion of Tesla was something that is referred to as the "index effect." While its existence has yet to be empirically verified in the case of Tesla, it is something that readers should be aware of.

1. The "Index Effect?"

It is important to note that the cost of including Tesla's common stock in the S&P 500 increased dramatically from the date of the Index Committee's inclusion announcement to the date Tesla was finally included. On November 16, 2020, the date when the S&P Dow Jones Indices announced that Tesla was to become part of the S&P 500 (after trading hours),¹¹⁸ the price of Tesla stock

¹¹⁷ Conversely, it is not unreasonable to believe that the typical S&P 500 investor would be willing to give up a little expected return if it meant a significant reduction in risk.

¹¹⁸ *Tesla Set to Join S&P 500*, S&P GLOB. (Nov. 16, 2021), <https://press.spglobal.com/2020-11-16-Tesla-Set-to-Join-S-P-500> [<https://perma.cc/22TC-WJAA>].

closed at \$408.09 per share.¹¹⁹ On December 18, 2020, the last trading day before the company was included in the S&P 500 on December 21, 2020, the stock closed at \$695.00 per share.¹²⁰ It is also interesting to note on a date when all the leading indices closed down significantly, December 18, 2020, Tesla's stock price closed up 5.96%.¹²¹ Incidentally, the Index Committee used the closing price of \$695.00 per share to determine the initial weighting of Tesla's stock in the index, 1.69%.¹²²

The dramatic price rise in Tesla's stock between the announcement date and inclusion date may have been the result of the "index effect," an abnormal increase in a stock's price that occurs between the announcement date of the stock's inclusion into an index and the date the inclusion actually occurs.¹²³ According to Bender, Nagori, and Tank, "[t]he index effect essentially captures the security price distortions, unrelated to the security fundamentals, driven by the supply-demand imbalances between the announcement date and the index rebalance date."¹²⁴ The result being that S&P 500 index funds that must begin to rapidly purchase shares of Tesla on the inclusion date end up paying a significantly higher price, lowering returns for investors in those funds.

Chen, Noronha and Singal found that between 1989 and 2002, S&P index funds lost up to twelve basis points per year in return because of periodic index adjustments in the S&P 500 index.¹²⁵ They attributed this index effect to arbitrage activity around the time of index changes and described the process as follows:

[A]rbitrageurs buy the stocks to be added to the index when the addition is announced with the expectation of selling the stocks to indexers at a higher price on the effective date. Similarly, upon announcement, arbitrageurs sell short stocks that are to be deleted from the index and expect to repurchase them from indexers at a lower price, or they may buy the deleted stocks on the effective date and hold them for several weeks until prices recover.¹²⁶

¹¹⁹ *Historical Prices for Tesla, Inc.*, YAHOO! FINANCE, <https://finance.yahoo.com/quote/TSLA/history?p=TSLA> [<https://perma.cc/7N9S-SBYS>].

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² Li, *supra* note 69.

¹²³ Jennifer Bender et al., *The Past, Present, and Future of the Index Effect*, J. INDEX INV., Winter 2019, at 15, 16.

¹²⁴ *Id.*

¹²⁵ Honghui Chen et al., *Index Changes and Losses to Index Fund Investors*, 62 FIN. ANALYSTS J. 31, 33 (2006).

¹²⁶ *Id.* Chen, Noronha, and Singal recommended the use of "silent indices" to deal with the issue of opportunistic arbitrage, i.e., funds are allowed to add and subtract companies without the index announcing composition changes in advance. *Id.* at 43.

Rauterberg and Verstein provide a similar explanation of why index fund investors suffer losses:

Beyond mere brokerage fees, index funds suffer enormous costs due to *opportunistic arbitrageurs*. When an index announces that a given company will be added to the index, index funds are obliged to purchase the company. Index funds typically rebalance their portfolio when the change becomes effective, rather than when it is announced. Arbitrageurs, however, are free to bid up (or down) the price of the security from the date of the announcement, knowing full well that many index funds will soon need to buy or sell the security. The result is that index funds pay more when they buy and receive less when they sell than they otherwise would.¹²⁷

Consistent with Chen, Noronha, and Singal, Petajisto also found that index funds suffer losses from composition changes.¹²⁸ Petajisto found that from 1990 to 2005, stocks that were added to the S&P 500 enjoyed a positive price impact from announcement to effective day of 8.8% and those that were deleted suffered a negative price impact of 15.1%.¹²⁹ Moreover, he found that this index premia resulted in S&P index funds conservatively losing twenty-one to twenty-eight basis points in fund value on an annual basis.¹³⁰ (He referred to this loss as the “index turnover cost”).¹³¹

However, instead of attributing these index fund losses to arbitrage, Petajisto attributes them to an “uninformed demand shock” resulting from index funds mechanically and simultaneously buying or selling stocks that are respectively being added or deleted from the index.¹³² Moreover, Petajisto provides a positive explanation of the role of arbitrage that results from the preannouncement of changes in an index:

[P]redictability in index composition is actually desirable for passive indexers. The price impact of index changes on the effective day of the change is generated by the coordinated demand due to index funds

¹²⁷ Rauterberg & Verstein, *supra* note 3, at 22 (emphasis added).

¹²⁸ See generally Antti Petajisto, *The Index Premium and Its Hidden Cost for Index Funds*, 18 J. EMPIRICAL FIN. 271 (2011) (discussing how index turnover creates costs for index fund investors).

¹²⁹ *Id.* at 272.

¹³⁰ According to Petajisto, “The range of our estimates reflects uncertainty about what fraction of the index premium is reversed over time—the more complete the reversal, the bigger the index turnover cost.” *Id.*

¹³¹ The index turnover cost

reflects the recurring costs that a mechanical indexer will have to pay for always buying stocks with the index premium and selling them without the premium. The cost is measured against what we label an “index-neutral” strategy, which consists of holding a portfolio with essentially identical characteristics but not being mechanically tied to holding the index all the time.

Id.

¹³² *Id.* at 271.

[“uninformed demand shock”]. The arbitrage activity consists of anticipating these changes days or even months earlier, buying the additions and then selling the entire position to index funds on the effective day. In effect, the arbitrageurs are thus helping to meet the large spike in demand by indexers by spreading the trade over a longer period of time. This is precisely why S&P started to preannounce index changes in 1989. Thus “silent indexes” where index changes are announced only after the indexers have traded would be more likely to hurt than help indexers.¹³³

In Petajisto’s view, getting rid of the preannouncement of index changes would create a significant market disruption. Without such preannouncements, arbitrageurs would not have the ability to accumulate or disburse the vast number of shares on the effective date that is necessary to avoid a temporary order imbalance and the resulting price shock.¹³⁴

2. The Disappearing Index Effect

In Petajisto’s article, he noted that the index effect for the S&P 500 peaked in 2000 and then declined through the rest of his sample period.¹³⁵ This is consistent with other articles that have observed a progressively declining index effect for the S&P 500 over time.¹³⁶ By the 2010s, more and more empirical studies were observing no index effect for the S&P 500 even though other indexes continue to be impacted by such an effect.¹³⁷ As noted by Bender, Nagori, and Tank, this result seems counterintuitive since index funds tracking the S&P 500 have grown rapidly over the past decade.¹³⁸ While the cause of this trend is still indeterminate, it is possible that the stock market has become more efficient for large cap stocks.¹³⁹

3. Tesla and the Index Effect

Intuitively, it is not hard to believe that S&P 500 index funds have suffered significant index-effect losses since the Index Committee announced that Tesla was to be included in the S&P 500. The S&P 500 may indeed have become more efficient for the typical large cap stock as academic research suggests, but not yet for a super-large cap stock like Tesla, a company worth over \$600 billion at the time of its inclusion. Also, a significant

¹³³ *Id.* at 273.

¹³⁴ *Id.* at 286.

¹³⁵ *Id.* at 275.

¹³⁶ Bender et al., *supra* note 123, at 17.

¹³⁷ *Id.*

¹³⁸ *Id.*

¹³⁹ *Id.*

limitation of empirical analysis is that it is backward looking, or based on historical data. It does not tell us where we are now or if the index effect for a particular index is gone for good. Therefore, it will be interesting to see if future empirical research demonstrates that Tesla's inclusion alone created a significant index effect for the S&P 500 in 2020.

B. *Dual-Class Shares*

The Committee's decision to exclude dual-class shares is even more disconcerting. This decision demonstrates how the Committee can be pressured by outside forces, in this case institutional investor clients, to make discretionary decisions that do not allow investors to enjoy the highest expected return for the risk taken.

To be fair, the compromise to exclude additional companies with dual-class shares but to grandfather in existing companies, such as Alphabet and Facebook, allowed the Committee to minimize the short-term financial harm to investors. However, time goes by quickly; what was once the short-term is now approximately four years. It is clear that the decision has not been optimal for the beneficial investors of funds that track the S&P 500. Yet, the decision has not been reversed. Hirst and Kastiel argue that this compromise was representative of "a natural limit on the extent to which index providers can exclude companies from their indexes."¹⁴⁰ They base this argument on the following:

[I]magine that socially conscious investors pushed index providers to exclude from the index gun manufacturers; tobacco companies; companies that inadequately disclose their carbon emissions; companies without women directors; and companies that adopt other governance terms that investors generally disfavor, such as classified boards, dual-class shares, and plurality voting. If that were the case, the list of excluded companies would be so large that indexes would no longer serve their business purpose of reflecting the performance of the industries and economies whose performance they seek to capture.¹⁴¹

Moreover, the rapid growth in the availability of environmental, social, and governance (ESG) funds should help remove the burden or pressure of "being virtuous" from the Index Committee's shoulders. Nevertheless, what the dual-class share saga implies is that the Index Committee is in a much weaker bargaining position with its institutional investor clients than

¹⁴⁰ Hirst & Kastiel, *supra* note 108, at 1243.

¹⁴¹ *Id.*

perhaps perceived by Hirst and Kastiel. What is missing in their argument is the level of importance of a specific index, such as the S&P 500, to the financial well-being of the index provider. As already mentioned, we estimate it is worth at least \$1 billion per year in revenue to S&P Global. This implies that the Index Committee would go to great lengths to make sure that franchise is not harmed. If so, then it should not be surprising to see the Index Committee eventually give into pressure to exclude one or more groups of companies that are not viewed positively by the public or the managers of institutions, such as fossil fuel companies, from its index. The result would be a serious blow in making the S&P 500 reflective of large cap stocks across all US industries.

Finally, it is also disconcerting to see that institutional investors would take an approach that would lead to lower expected and actual returns for their beneficial investors, suggesting that the “agency costs of agency capitalism”¹⁴² may be at play. Agency capitalism arises when institutional investors, not retail investors, come to dominate the ownership of common stock.¹⁴³ These agents generate agency costs when they utilize their stock ownership to satisfy their own preferences (thereby enhancing the welfare of the institutions or its investment managers) and not the preferences of investors who have provided them with the funds to purchase the common stock (beneficial investors).¹⁴⁴ More research needs to be done in the context of how such agency costs impact the behavior of index providers.

C. *Recommendations for Enhancing Committee Performance*

In determining the constituent companies that make up the S&P 500, the Index Committee should use its discretionary authority to allow funds that track the S&P 500 to create portfolios of stocks that most accurately represent the market risk and expected returns of large cap, Blue Chip America. The Committee can do this by first minimizing the value judgments it may consciously or unconsciously make about certain companies—for example, Tesla. Such value judgments may be made about leadership or leadership style, type of company, ability to be a big winner in terms of market cap, the company’s viability, or quality or acceptability of product into the marketplace. Of course,

¹⁴² Gilson and Gordon were the first to use this term. See Ronald J. Gilson & Jeffrey N. Gordon, *Agency Costs of Agency Capitalism: Activist Investors and the Reevaluation of Governance Rights*, 113 COLUM. L. REV. 863, 890 (2013).

¹⁴³ See *id.* at 916.

¹⁴⁴ Bernard S. Sharfman, *How the SEC Can Help Mitigate the “Proactive” Agency Costs of Agency Capitalism*, 8 AM. U. BUS. L. REV. 1, 3–4 (2019).

judgments that are beyond the capabilities of the Index Committee to make should not be part of the decision-making process.

The Committee can also start putting beneficial investors first by minimizing the amount of negotiation that occurs with external parties, such as institutional investor clients. This minimization needs to occur because the Committee is in an extremely poor negotiating position with those third parties. This is a result of all sides knowing that the Index Committee is vulnerable to any threat to significantly reduce the use of the S&P 500, an index that generates annual revenue for S&P Global, which this article estimates to exceed \$1 billion per year. Therefore, if the Committee does not minimize these negotiations, it will continually erode the risk-return profile of the index, making it an increasingly suboptimal index for purposes of investing.

To enhance the returns to investors of funds that track the S&P 500 and to mitigate any potential legal liability that such funds may be exposed to from a lack of proper disclosure,¹⁴⁵ this article recommends that the Index Committee implement an additional rule, a market value rule that can be used to justify the relatively prompt inclusion of companies like Tesla (where the collective wisdom of active investors have deemed it worthy of inclusion as reflected in its market value) and rationalize the inclusion of additional dual-class share companies without the need to negotiate with clients. Moreover, this rule should help minimize the index effect by making sure companies are included in the S&P 500 before they reach the market value of a Tesla.

The suggested market value rule would require the Index Committee to periodically include any firm that has been in the top five hundred US companies by market value for four consecutive quarters. Moreover, it would exclude any company that has been below the top five hundred for four consecutive quarters. In a time of increasing technological change, this will allow the S&P 500 to more quickly represent “new” versus “old” industries. The Committee can make exceptions to this rule if the S&P 500 is required to maintain five hundred companies in the index. However, the index may be allowed to go over five hundred in order to include qualifying companies. This would hopefully allow, for example, quick inclusion of dual-class companies like Zoom or Snap Inc., companies whose market values have consistently been above the minimum requirement.

This article also recommends dropping the current accounting profitability rule as it is no longer a helpful indicator of a company’s ability to be a stable component of and add value to the

¹⁴⁵ See Parts IV, V.

S&P 500. This is not to say that it was not in the past. For example, as shown in **Figure 3**, a portfolio composed of companies that were in the top five hundred in terms of market value and had negative trailing twelve-month earnings would have underperformed the S&P 500 index by 92% between December 1992 and July 2012.¹⁴⁶

Figure 3. *Performance of Large US Companies* with Negative Earnings Versus the S&P 500 Index: 1992 to 2012.*

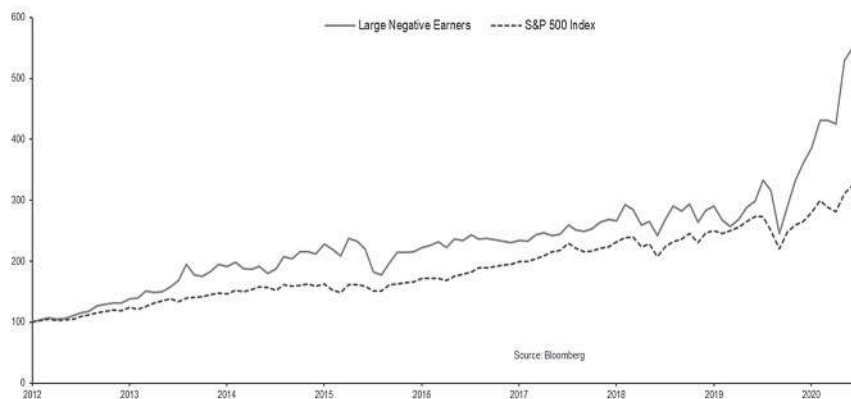


*US-listed companies among the top 500 largest capitalizations

However, as shown in **Figure 4**, this trend has reversed dramatically since 2012. Our portfolio of large cap stocks with negative trailing earnings has outperformed the S&P 500 index by 76% from August 2012 to January 2021.

¹⁴⁶ Cap-weighted performance composite of stocks with negative trailing twelve-month earnings as reported by Bloomberg. The portfolio was rebalanced monthly and the list was updated every month.

Figure 4. *Performance of Large US Companies* with Negative Earnings Versus the S&P 500 Index: 2012 to 2021.*



*US-listed companies among the top 500 largest capitalizations

Perhaps accounting profits reported under Generally Accepted Accounting Principles (GAAP) are unable to identify high value firms because the US economy has been transitioning to one dominated by intangible assets. Therefore, the true drivers of value (intellectual property, network effects, access to data, brand recognition, market power) do not show on the financial statements of the companies who have the highest market values. In any event, the Committee should drop this rule from its methodology.

In sum, the authors believe these recommendations will enhance the performance of the funds that track the S&P 500, provide heightened returns to investors in those funds, and minimize potential legal liability.

IV. LEGAL ISSUES AND APPLICABLE LAW

Our empirical research raises two main legal issues. The first is whether investment funds that track the S&P 500 are providing adequate *principal risk* disclosures. Second, this research also calls into question whether the S&P 500 index can be used as an *appropriate broad-based index* for benchmarking purposes.¹⁴⁷

These legal issues arise from the “full and fair disclosure” approach that is utilized by the SEC to regulate investment funds that track the S&P 500 and other indexes.¹⁴⁸ The authority for

¹⁴⁷ “Benchmarked assets represent assets in actively managed funds where the performance of the active manager is measured against the respective [benchmark] index.” S&P GLOB., *supra* note 16, at 49.

¹⁴⁸ Securities Act of 1933, ch. 38, pmb., 48 Stat. 74 (codified as amended at 15 U.S.C. §§ 77a–77aa).

required disclosures flows from both our securities statutes, namely the Securities Act, and SEC rules promulgated thereunder. Investment funds that track the S&P 500 are typically open-end management investment companies that register their securities with the SEC using the SEC's Form N-1A.¹⁴⁹

According to the SEC, “[a]n open-end management investment company is an investment company, other than a unit investment trust or face-amount certificate company, that offers for sale or has outstanding any redeemable security of which it is the issuer.”¹⁵⁰ The SEC requires these investment funds to provide their new investors with a summary prospectus, a more detailed “statutory prospectus,”¹⁵¹ and a “statement of additional information” (SAI), which is made available online.¹⁵² As permitted by SEC Rule 498, a fund may use a summary prospectus to inform new investors if the statutory prospectus is posted online.¹⁵³ The summary prospectus is composed of the same information found at the beginning (summary section) of the statutory prospectus.¹⁵⁴ The investment fund uses Form N-1A when providing the required information to be entered into both the summary and statutory prospectus.

Moreover, funds are required to provide their investors with amended prospectuses, usually in the form of revised summary prospectuses,¹⁵⁵ on an annual basis. Section 10(a)(3) of the Securities Act creates the need for an annual amendment, providing that “when a prospectus is used more than nine months after the effective date of the registration statement” of which it is a part, the

¹⁴⁹ See FORM N-1A, *supra* note 15.

¹⁵⁰ Tailored Shareholder Reports, Treatment of Annual Prospectus Updates for Existing Investors, and Improved Fee and Risk Disclosure for Mutual Funds and Exchange-Traded Funds; Fee Information in Investment Company Advertisements, Release Nos. 33-10814, 34-89478, IC-33963, 85 Fed. Reg. 70,716, 70,717 n.4 (proposed Nov. 5, 2020) (to be codified at 17 C.F.R. pts. 200, 230, 239, 240, 270, 274). Citing sections 4 and 5(a)(1) of the Investment Company Act, 15 U.S.C. §§ 80a-4, 80a-5(a)(1), this release provides an excellent overview of the current disclosure requirements for mutual funds and ETFs.

¹⁵¹ Section 10(a) of the Securities Act requires information that is in the registration statement to be included in the prospectus. 15 U.S.C. § 77j(a). A prospectus meeting the requirements of 10(a) is referred to a “statutory prospectus.” 17 C.F.R. § 230.498(a)(6).

¹⁵² 17 C.F.R. § 230.498(a)(5).

¹⁵³ *Id.* § 230.498(b)(1)(v). The summary prospectus only requires “Items 2 through 8 of Form N-1A.” See *id.* § 230.498(b)(2).

¹⁵⁴ See Enhanced Disclosure and New Prospectus Delivery Option for Registered Open-end Management Investment Companies, Investment Company Act Release Nos. 33-8998, IC-28584, 74 Fed. Reg. 4546, 4549 (Jan. 26, 2009) (to be codified at 17 C.F.R. pts. 230, 232, 239, 274) (“[T]he information required in the summary section of the prospectus will be the same as that required in the new Summary Prospectus, and it is key information that is important to an investment decision.”); 17 C.F.R. § 230.498(b)(2).

¹⁵⁵ Tailored Shareholder Reports, Release Nos. 33-10814, 34-89478; IC-33963, *supra* note 150, at 70,719 n.12 (“We estimate that as of December 31, 2018, approximately 93% of mutual funds and ETFs use summary prospectuses.”).

information in the prospectus must “be as of a date not more than sixteen months prior to” the date of use.¹⁵⁶

A. *Principal Risk Disclosure*

Investors in index funds are particularly interested in disclosure items 4(b)(1)(i) and 9(c) in Part A of Form N-1A.¹⁵⁷ Both items focus on disclosing the *principal risks* of investing in a fund, “including the risks to which the Fund’s particular portfolio as a whole is expected to be subject and the circumstances reasonably likely to affect adversely the Fund’s *net asset value, yield, or total return.*”¹⁵⁸ These risks must be specific to the investment fund, not general market risks.¹⁵⁹ The disclosures required by Item 9(c) provide a full description of the principal risks of investing in the fund and are found soon after the summary section in the statutory prospectus. The disclosures required by Item 4(b)(1)(i) are meant to provide a summary of the disclosures required by Item 9(c).

Item 4(b)(1)(i) disclosures are found in both the statutory prospectus and the summary prospectus. Item 9(c) is only found in the statutory prospectus. The reason why Item 9(c) is not included in the summary prospectus is explained by the SEC, “[t]he intent of the summary prospectus is to provide investors a concise summary of key information. Funds should present more detailed information about their principal risks elsewhere in the prospectus.”¹⁶⁰ Examining the statutory prospectus for iShares S&P 500 Index Fund Investor A Shares offers a glimpse into how the disclosures differ between the two items.¹⁶¹ One of the principal risks that the fund manager believes investors face is “equity securities risk.”¹⁶² To meet its Item 9(c) disclosure requirement, the fund manager states the following:

Equity Securities Risk—Common and preferred stocks represent equity ownership in a company. Stock markets are volatile. The price of equity securities will fluctuate and can decline and reduce the value

¹⁵⁶ 15 U.S.C. § 77j(a)(3).

¹⁵⁷ As stated in Form N-1A, “Part A includes the information required in a Fund’s prospectus under section 10(a) of the Securities Act.” FORM N-1A, *supra* note 15, at iii.

¹⁵⁸ *Id.* at 9, 17 (emphasis added).

¹⁵⁹ *In re Morgan Stanley Info. Fund Secs.*, 592 F.3d 347, 363–64 (2d Cir. 2010).

¹⁶⁰ *ADI 2019-08—Improving Principal Risks Disclosure*, U.S. SEC. & EXCH. COMM’N (Sept. 9, 2019), <https://www.sec.gov/investment/accounting-and-disclosure-information/principal-risks/adi-2019-08-improving-principal-risks-disclosure#> [<https://perma.cc/F5FF-C2QS>].

¹⁶¹ See BLACKROCK, ISHARES S&P 500 INDEX FUND, INVESTOR A AND INSTITUTIONAL SHARES, PROSPECTUS 4, 9 (Apr. 30, 2021), <https://bit.ly/3xk5wVI> (last visited Feb. 4, 2022).

¹⁶² *Id.* at 4, 10.

of a portfolio investing in equities. The value of equity securities purchased by the Fund could decline if the financial condition of the companies the Fund invests in declines or if overall market and economic conditions deteriorate. The value of equity securities may also decline due to factors that affect a particular industry or industries, such as labor shortages or an increase in production costs and competitive conditions within an industry. In addition, the value may decline due to general market conditions that are not specifically related to a company or industry, such as real or perceived adverse economic conditions, changes in the general outlook for corporate earnings, changes in interest or currency rates or generally adverse investor sentiment.¹⁶³

To meet its Item 4(b)(1)(i) disclosure requirement, the form simplifies the disclosure provided in Item 9(c): “*Equity Securities Risk*—Stock markets are volatile. The price of equity securities fluctuates based on changes in a company’s financial condition and overall market and economic conditions.”¹⁶⁴

The disclosure of another principal risk from the iShares statutory prospectus, *Tracking Error Risk*, demonstrates that Item 4(b)(1)(i) does not require a simplified explanation if the issuer does not believe it will provide “full and fair disclosure.”¹⁶⁵ The following disclosure is used for both items:

Tracking Error Risk—The Fund may be subject to tracking error, which is the divergence of the Fund’s performance from that of the Underlying Index. Tracking error may occur because of differences between the securities and other instruments held in the Fund’s portfolio and those included in the Underlying Index, pricing differences (including, as applicable, differences between a security’s price at the local market close and the Fund’s valuation of a security at the time of calculation of the Fund’s net asset value), differences in transaction costs, the Fund’s holding of uninvested cash, differences in timing of the accrual of or the valuation of dividends or other distributions, interest, the requirements to maintain pass-through tax treatment, portfolio transactions carried out to minimize the distribution of capital gains to shareholders, changes to the Underlying Index and the cost to the Fund of complying with various new or existing regulatory requirements. These risks may be heightened during times of increased market volatility or other unusual market conditions. In addition, tracking error may result because the Fund incurs fees and expenses, while the Underlying Index does not.¹⁶⁶

¹⁶³ *Id.* at 10.

¹⁶⁴ *Id.* at 4.

¹⁶⁵ Securities Act of 1933, ch. 38, pmb., 48 Stat. 74 (codified as amended at 15 U.S.C. §§ 77a–77aa).

¹⁶⁶ BLACKROCK, *supra* note 161, at 5.

B. *An Appropriate Index for Benchmarking Disclosures*

Form N-1A also examines the requirements for an appropriate benchmark index as a means to measure the performance of an investment fund:

Provide a line graph comparing the initial and subsequent account values at the end of each of the most recently completed 10 fiscal years of the Fund (or for the life of the Fund, if shorter), but only for periods subsequent to the effective date of the Fund's registration statement. Assume a \$10,000 initial investment at the beginning of the first fiscal year in *an appropriate broad-based securities market index* for the same period.¹⁶⁷

Moreover, “an ‘appropriate broad-based securities market index’ is one that is administered by an organization that is not an affiliated person of the Fund, its investment adviser, or principal underwriter, *unless the index is widely recognized and used.*”¹⁶⁸ Of course, an index representing the latter is the S&P 500. In the minds of many investment funds, the S&P 500 is the benchmark index of choice. As of the end of 2020, actively managed funds worth approximately \$8.4 trillion were using the S&P 500 index for benchmarking purposes.¹⁶⁹ Yet, just because it is broad-based and widely used does not mean the S&P 500 is an appropriate index. We will explore this issue in Part V.

V. APPLYING THE LAW TO THE FACTS: LEGAL RECOMMENDATIONS

Applying the law to our empirical findings yields the following legal recommendations.

A. *New Principal Risk Disclosure: Selection Risk*

We believe that S&P 500 funds need to provide an additional principal risk disclosure in both Items 4(b)(1)(i) and 9(c) of Form N-1A and, as a result, in their respective statutory and summary prospectuses. This principal risk disclosure would focus on the *selection risk* that exists when the Index Committee determines which companies will constitute the S&P 500. Selection risk results when the Index Committee, using its discretionary decision-making power, excludes stocks or groups of stocks that may outperform the

¹⁶⁷ FORM N-1A, *supra* note 15, at 61 (emphasis added).

¹⁶⁸ *Id.* at 62–63 (emphasis added).

¹⁶⁹ *Annual Survey of Assets: As of December 31, 2020*, *supra* note 9.

index and eventually represent a large share of the investment universe, thereby preventing funds that track the S&P 500 to create portfolios of stocks that most accurately represent the market risk and expected returns of large cap, Blue Chip America. In sum, it is a specific risk of the fund that can reasonably be expected to “affect adversely the Fund’s *net asset value, yield, and total return.*”¹⁷⁰ We propose that S&P 500 funds adopt the following language to meet the requirements for selection risk disclosure under Item 9(c). This language can also be used for Item 4(b)(1)(i):

The Index Committee of the S&P 500 may not necessarily use its discretionary decision-making to constitute the S&P 500 with companies that are expected to most accurately reflect the risk-return profile of the market it is trying to represent. For example, the Committee may delay the inclusion of potential big winners into the S&P 500 as it did with Tesla, even though their market value may consistently be many multiples of the minimum value required for inclusion over many quarters or even years. As a result, the purchase of these stocks by S&P 500 funds may be executed at significantly higher prices than if the inclusion had occurred at an earlier date, thereby reducing the returns to fund investors for the risk taken. Moreover, the delayed inclusion of large capitalization stocks like Tesla may be associated with an “index effect,” i.e., a significant run-up in stock price from the date of the Index Committee’s announcement of inclusion until the actual inclusion date.¹⁷¹ This effect will also create additional cost in the purchase of such stocks on the inclusion date, thereby reducing returns to investors in S&P 500 funds.

Another example is when the Index Committee utilizes nonpecuniary factors in determining the companies that constitute the S&P 500. Such factors are not related to creating an index that reflects the risk-return profile of the market. In essence, a form of portfolio screening based on nonpecuniary factors is implemented, reducing the “universe of eligible investments based on non-financial (non-pecuniary) objectives.”¹⁷² For example, the S&P 500’s current exclusion of companies with dual-class shares that have not already been grandfathered into the index may lead to reduced returns to fund investors for the risk taken.

B. The S&P 500 Is Not an Appropriate Broad-Based Securities Market Index

For an index to be *an appropriate broad-based securities market index* for purposes of Form N-1A, the index must also be representative of what this broad-based securities market can reasonably provide in terms of expected returns. Based on the authors’ empirical findings, this is where the S&P 500 falls short as an appropriate index for purposes of Form N-1A. Of course,

¹⁷⁰ FORM N-1A, *supra* note 15, at 9, 17 (emphasis added).

¹⁷¹ See *supra* Section III.A.1.

¹⁷² Sharfman, *supra* note 102, at 114.

managers of actively traded funds have no problem using the S&P 500 as their benchmark. These managers know that the lower expected returns of the index should help in appearing to beat the market. However, the use of the S&P 500 as a benchmark index will also mislead investors into believing that the actively managed fund is doing better than it actually is.

Therefore, unless the Index Committee changes its approach, the authors do not believe that the S&P 500 is an appropriate index for disclosure purposes. An appropriate index would most likely be a total US market index (i.e., a weighted index of all publicly traded companies) or perhaps an index that holds the five hundred largest US companies. In choosing an appropriate alternative to the S&P 500, the alternative index is one that avoids decision-making that does not allow for the most accurate representation of Blue Chip America.

CONCLUSION

The discretionary decision-making of the Index Committee should be of extreme interest to both investors and regulators. Such discretionary decision-making is not illegal and from a business perspective, it may be required. For example, the reasons compelling the Index Committee's decision to exclude companies that have recently gone public with dual-class shares. Yet, this discretionary decision-making raises issues for investors. To deal with the issues, the authors seek a solution that does not interfere with investor preferences. From our perspective, such a solution must rely on adequate disclosure. Therefore, it would be satisfactory if the Index Committee does nothing to make the S&P 500 more representative of market returns and those funds that track the index adequately disclose the shortcomings that this article identifies. Moreover, if investors do not care about these disclosed shortcomings and still want to invest in funds that track the S&P 500, that is their right.