

## Boardroom Racial Diversity: Evidence from the Black Lives Matter Protests

Finance Working Paper N° 789/2021

November 2022

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This paper provides evidence that the Black Lives Matter (BLM) protests that followed the killing of George Floyd on May 25, 2020 brought immediate changes to the US corporate boards. Using a sample of S&P 500 index companies, we find that companies with higher representation of black directors are associated with higher stock returns during the mass BLM protests. Before the BLM protests, black directors held on average 8.2 percent of the board seats, with each black director holding on average 1.34 board seats, which is significantly higher than for directors of other ethnic origins. Within one year after the BLM protests, 10.7 percent of the sample firms hired at least one black director (compared to having no black representation on the board before the protests), and 31 percent of the newly appointed directors were black. We find that companies typically add new diverse directors by increasing the board size, but there is no evidence of negative value effect or decreasing director quality. The finding that racial diversity can be increased at an unprecedented speed without a loss in value is consistent with the view that a boost in boardroom diversity is possible under strong multichannel pressure from investors, consumers, employees, and regulators.

Keywords: Boardroom diversity, corporate governance, mass protests, Environmental, Social and Governance (ESG)

JEL Classifications: G12, G14, G30

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#### 1. Introduction

The killing of George Floyd, an African American male, by a US police officer on May 25, 2020 led to widespread protests against police brutality, re-igniting the Black Lives Matter (BLM) movement that brought worldwide attention to racial injustice. The protests reached a peak on June 6, gathering almost 500,000 people in 550 different locations across the USA. As of July 2020, the total number of demonstrators reached 15–26 million people, which makes BLM protests the most heavily attended civil movement in US history (Buchanan, Bui, & Patel, 2020). The protests spread around the world, raising awareness of issues of racial inequality, discrimination, and systemic racism.

With increased attention on systemic racism, growing number of stakeholders recognize racial diversity on corporate boards (or rather lack thereof). Although calls for companies to increase ethnic diversity are not new (Reeve, 2017), as of May 2020 most of the attention was on increasing the number of gender-diverse boards. The BLM protests changed that. Environmental, Social and Governance (ESG) funds, that had experienced increasing money inflows before the protests, devoted more attention to racial diversity in companies (Kishan & Marsh, 2020), many corporations and asset management firms recognized issues of insufficient racial diversity and focused on inclusion and equal opportunities policies (Nauman, 2020). Institutional investors started to demand disclosure of boardroom racial composition (Butler, 2020) and urged companies to act accordingly (Edgecliffe-Johnson & Nauman, 2020). Also, media drew attention to large public companies that did not have a single black person on their board of directors and noted that "Corporate America has a long way to go to achieve meaningful black representation in its leadership ranks" (Newsweek, 17 June 2020). And on December 1, 2020, NASDAQ proposed a "comply or explain" Board Diversity Rule that was accepted by the SEC on August 6, 2021.

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<sup>&</sup>lt;sup>1</sup> Pressure for boardroom gender diversity in the US started with the State Street's "Fearless Girl" statue (symbolizing the power of women in leadership), placed opposite of the Charging Bull statue on March 7, 2017. Soon after, State Street and BlackRock launched campaigns for their portfolio firms to include women on their board of directors. In 2018, regulatory response followed and California became the first US state mandating most publicly traded companies to have at least three women on their boards by the end of 2021.

<sup>&</sup>lt;sup>2</sup> "State Street's \$3.1tn investment arm will start voting against directors of big companies that fail to disclose the racial and ethnic make-up of their boards, a move that will increase the mounting pressure on corporations to diversify their leadership." (Financial Times, January 10, 2021, "State Street to insist companies disclose diversity data".)

In this paper, we examine how investors assess the racial diversity of corporate board during the BLM protests and one year after the protests. The widespread BLM campaign was an exogenous shock that prompted investors to reevaluate risks associated with racially non-diverse boards. We posit that stock returns of companies with black representation in the board differ from those of companies without a single black director during the BLM protests, and the sign of this relationship depends on investor expectations about the costs and benefits of increasing racial diversity on the board.

There are two contradicting theories—the knowledge view and the conflict view—explaining the relationship between racial diversity and company performance (Richard, Murthi, and Ismail, 2007). The positive "knowledge-based view" (Andrevski et al., 2014) supports the idea of racial diversity as increasing the variety of viewpoints and opinions (and thus aggregated group knowledge), in turn leading to superior decision-making and better performance (Watson et al., 1993; Conner & Prahalad, 1996; Carter et al, 2003; Erhardt et al, 2003). Previous literature documents a positive relationship between boardroom racial diversity and firm reputation (Miller and Triana, 2009; McMillan, Aaron, and Cline, 2010), better innovation and global outreach (Cox, 1991), more efficient response to market volatilities and unprecedented events (Hunt, Layton, and Prince, 2015), and higher firm productivity (Richard, Triana, and Li, 2020).

In contrast, the negative "theory of heterogeneity" (Richard, Murthi, & Ismail, 2007), initially developed by Blau (1977), states that group racial diversity might lead to obstacles in communication (due to discrimination, biases, differences in beliefs and values) and facilitate conflict (Baugh & Graen, 1997) thus hindering performance and decision-making efficiency (Richard, Murthi, & Ismail, 2007). The overall effect differs depending on the level of diversity (Blau, 1977), the team's organizational hierarchy (Richard, Triana, & Li, 2020), the time period and the industry (Richard, Murthi, & Ismail, 2007), as well as diversity management practices and level (for example, group vs organization) (Richard, 2000).

Although corporate boards might embrace different levels of diversity – such as gender, experience, field of expertise – with race and ethnicity being one of them, we hypothesize that the BLM mass protests illuminated racial diversity issues and prompted reevaluation of the effect of boardroom racial diversity on firm value.

At first sight, the lack of black representation on the board should have been a concern to investors during the BLM protests. Drawing parallels with the #MeToo Movement (beginning in October 2017) that shifted investors' beliefs about higher risks associated with no or minimal board gender diversity and resulted in positive abnormal returns for firms with gender-diverse boards (Bilings, Klein & Shi, 2022), we would expect that firms with racially-diverse boards outperform other firms during the BLM protests. Similarly, if investors expect that companies with racially non-diverse boards end up having less capable boards and deviate from the "optimal" board structure under the public pressure to increase boardroom racial diversity (Ahern and Dittmar, 2012), we would observe negative abnormal returns for firms with racially non-diverse boards. Alternatively, if investors praise this public pressure that induces firms to solve race problems, reduce discrimination and hence improve efficiency and overall welfare (Denes and Seppi, 2022), we would expect positive abnormal returns for firms without black representation in the board.

To address this empirical question, we analyze stock price reactions during a 25-day period from May 25, the day George Floyd was killed, through the peak of the BLM protests on June 6, and until June 19, when attention towards the protests normalized. We measure interest towards certain search patterns and keywords related to the protests (such as "BLM", "protests", "racial inequality", and "racial injustice") using Google Trends. We start by collecting the board composition of companies included in the S&P 500 index as of May 25. Since in most cases companies do not disclose their board's racial diversity data or the race of their board members, we use external resources to hand-collect the necessary information. As a result, we have a comprehensive data set of all the S&P 500 index companies' board members.

We find a positive association between the representation of black directors and stock returns during the BLM protests, especially among the largest and most popular companies. In the sample of top 250 companies by market capitalization, the relationship is both economically and statistically significant. For example, firms with at least one black director are associated with 3.1% higher Fama-French and Carhart (4-factor) adjusted cumulative abnormal returns at the peak of the BLM mass protests than firms without black directors. This relationship is not driven by general board diversity, such as the proportion of all ethnic minorities or the proportion of female directors on the board.

Our sample covers 5,524 board seats and 4,665 unique individuals. We find that all ethnic minorities on average hold 16% of board seats and black directors hold 8% of board seats; meanwhile 17% of sample companies have no ethnic minorities on the board of directors and 37% have no black directors. Interestingly, the average number of board seats per black director is 1.34, compared to 1.17 board seats per director of other ethnic origin, the difference being statistically significant at the 1% level. As in previous literature (Carter et al., 2003), a positive correlation exists between the size of the company, both in terms of market capitalization and board size, and the percentage and number of board seats occupied by ethnic minorities.

Given public pressure to improve boardroom racial diversity, our paper also addresses the following questions: How quickly companies added new diverse directors? And do we observe any potential deviations from "optimal" board structure?

Previous literature shows that board seat quotas (either mandated or nudged under the pressure of the public) can have a negative effect on firm value as firms deviate from the optimal board structure by appointing less experienced and less capable boards (Ahern and Dittmar, 2012). Perhaps some of the boardroom changes are rushed, as noted in a roundtable discussion held by the Conference Board (Schwarz, 2021): "Because of the sense of urgency to take a stand against racial inequality following the killing of George Floyd, many companies focused on speed rather than on process when making financial commitments a year ago." This sense of urgency increased with board diversity lawsuits filed in the second half of 2020 (Odell, 2020, Aneiros, 2020; Martinez, 2022). Oracle lawsuit (July 2, 2020) was the first in a series of diversity driven derivative suits against boards and officers, containing allegations that despite publicly emphasizing the importance of diversity, the boards and management remained largely white and male (Odell, 2020).<sup>3</sup>

Another point of concern outlined by Rhode and Packel (2014) is representation quotas in the boardroom or "tokenism"—the inclusion of minorities to satisfy a certain quota that would facilitate perception of the board as "racially diverse". Tokenism may lead to decreased incentives in terms of continuous stimulation of racial diversity, reduced influence, decision

<sup>&</sup>lt;sup>3</sup> Interestingly, "most of the complaints punctuate the point with photographs of current board members, showing apparent lack of racial diversity" (see <a href="https://www.troutman.com/insights/a-new-wave-of-board-diversity-derivative-litigation.html">https://www.troutman.com/insights/a-new-wave-of-board-diversity-derivative-litigation.html</a>), which supports our approach of race classification based on photographs if otherwise race and ethnicity of board members is not disclosed.

power, and inclusion of racial minorities, as well as a perception of inferiority and biases towards the person appointed (Rhode & Packel, 2014; Konrad, Kramer, & Erkut, 2008), and it can be counterproductive to firms' financial performance if the only aim is to satisfy certain inclusion quotas (Roberson and Park, 2006). Hiring a token director might be perceived by investors as a type of woke washing, i.e. using social movements as a marketing tool to improve sales without addressing the core issue. Related to this, Chen et al. (2021) find that about one fifth of S&P1500 firms are potential woke-washers, as they spoke out in support of the BLM movement but scored low on overall inclusivity.

We document that within one year after the BLM mass protests, firms have considerably increased the number of board seats held by black directors. During the time period between May 25, 2020 and July 15, 2021, 61 percent of companies introduced new directors and almost one third (31%) of them were black. As a result, the proportion of board seats held by black directors has increased from 8.2% to 9.6%, and, more noteworthy, 10.7% of the sample firms (53 out of 496) hire at least one black director after the protests (compared to having no black representation on the board before the protests). This increase is mostly driven by firms adding new board seats, rather than replacing existing directors. However, we find no evidence of new black directors being hired in a rushed manner, as most of the new directors are appointed in between annual meetings and put up for shareholder vote at the nearest annual meeting, and there is no difference in appointment timing for black directors and other new directors.

We next examine the characteristics of new directors and find no evidence of newly appointed black directors being less qualified. Similar evidence is found in Bogan, Potemkina, and Yonker (2021) who study the quality of all new minority directors and find no difference between the quality of new and previously appointed directors. Quite on the contrary, we find that newly appointed black directors have on average higher number of qualifications than other new directors. This finding is consistent with previous evidence that racial-minority board representatives are more academically educated and bring more diverse skills compared to white male directors (Hillman, Cannella, and Harris, 2002), as well as they are less likely to serve on the board despite possessing stronger qualifications than nondiverse directors (Field, Souther, & Yore, 2020). Although the number of academic or professional qualifications of potential token directors (i.e. black directors joining firms without black representation in the board) (2.13) is lower than for black directors joining boards that already have at least one black director (2.75),

the result is driven by excessive qualifications of the latter group; even token directors have the same number of qualifications as other new directors (2.13). Not surprisingly, the new directors are younger than incumbent directors, but there is no difference between time to retirement of new black directors and other new directors.

Additionally, we find that boards pay considerably more attention to racial diversity issues in reported statements in the aftermath of the BLM protests. Our findings show that post-BLM proxy statements have a significantly higher prevalence of words related to 'race', 'ethnic' and 'diversity' than the proxy statements of the same companies before the BLM protests. The average number of words referring to 'race', 'racial', 'person of color', or 'ethnic' per 100,000 words in the latest proxy statement before May 25 is 1.2 compared to an average of 28.8 in the first proxy statement after May 25, the difference being statistically significant at the 1% level. Similar results are obtained using the word 'diversity'. It is also interesting to note that the correlation between talking about racial diversity in a proxy statement and the actual racial diversity of the board is relatively low (0.03).

Finally, we examine the relationship between boardroom racial diversity and some longer-term firm performance measures, such as Tobin's Q and portfolio returns, and find no significant difference between more and less racially diverse firms one year after the BLM mass protests. This no result is not surprising given that we observe only a short time period after the respective board changes and, moreover, the endogenous nature of board diversity makes the identification of causality between board composition and firm performance very difficult (Adams et al., 2010). More research is needed to investigate the racial diversity and firm outcome relationships in the long-term. Nevertheless, that the unprecedented rapid increase of black representation in the corporate boards is not followed by immediate negative stock returns is reassuring. This result is consistent with Bilings et al. (2022) who find no evidence that investors discounted the appointment of a new woman director in response to the #MeToo movement and that these appointments harmed firm value.

Overall, the findings in this paper support the view that the BLM protests and simultaneous pressure from all stakeholders—investors, consumers, employees, and regulators—brought immediate changes to US corporate boardrooms. We argue that these protests ignited a multichannel pressure on firms to embrace racial diversity at the firms' highest

ranks (Barzuza, Curtis, Webber, 2020). For those who are looking for the economic efficiency argument—in addition to social justice argument—to justify board diversification, our paper supports the view that new diverse directors do not harm firm value and firms are capable of hiring qualified directors of color. We argue that in the past this search for a business case for the boardroom diversity contributed to racial bias and has resulted in higher demands for diverse directors to secure their place on the board. It also might have reduced the pool of appropriate minority directors who felt that they would be forced (internally, by incumbent board members, and externally, by opponents to representation quotas) to over-perform to justify their seat on the board.

Our study contributes to prior literature on boardroom diversity and firm performance (reviewed, for example, in Adams et al. (2015) and Knyazaeva et al. (2021)) by analyzing the effect of an exogenous shock (BLM protests) on the relationship between boardroom racial diversity and firm value. Prior studies have mainly focused on the gender diversity of corporate boards (e.g. Adams and Ferreira, 2009) or directors' nationality (e.g. Masulis, Cong, and Fei, 2012), while studies on racial diversity are emerging just recently due to availability of new datasets (Field et al., 2020; Bogan et al., 2021). We contribute by focusing on boardroom racial diversity during the time of a potential structural change in how investors perceive risks and benefits of racial composition of the board.

We also contribute to the literature on protests and stock prices. There are several channels through which protests might affect company stock prices (King & Soule, 2007). For example, customers may boycott companies with non-diverse leadership, thus posing a threat to company cashflow. Additionally, we suggest that BLM protests raised awareness of issues of racial inequality and systemic racism and triggered potential reputational damage risk that could impact shareholder wealth (Roberts and Dowling, 2002; Bear, Rahman, and Post, 2010).

<sup>&</sup>lt;sup>4</sup> A contemporaneous study by Bogan et al. (2021) examines the drivers of racial diversity on US corporate boards and estimates the impact of government mandates, stock exchange initiatives, and racial justice movement on promoting racial diversity on boards. Their results show that none of the government or stock exchange initiatives were nearly as effective as the racial justice movement that followed the murder of George Floyd. Our paper provides more nuanced analysis of this important event in a sample of largest US listed companies (included in S&P500), explains the multichannel pressure on firms during the racial justice movement, as well as provides early evidence on value impact of adding racially diverse directors.

Finally, our paper adds to the debate about increasing pressure for companies to embrace different dimensions of diversity beyond gender, race and ethnicity. In particular, boards are expected to have expertise in sustainability, cybersecurity, geopolitical risks, and other fields. At the same time, investors want companies to keep their board size to a manageable number, which means that each director must fill "several boxes" (Katz & McIntosh, 2022). In this context, the observation that racial diversity can be increased at an unprecedented speed without a loss in value should give the market reassurance that boosting multi-dimensional boardroom diversity is possible if there is strong market pressure.

#### 2. Data and methodology

#### 2.1. Time horizon and sample

We study the market reaction to the BLM mass protests using a sample of S&P 500 companies. The start and end dates of our event study time horizon are based on the chronology of the BLM protests and peak interest towards certain search patterns and keywords related to the protests (such as "BLM", "protests", "racial inequality", "racial injustice") using Google Trends. This allows us to determine the period during which the topic of racial inequality and diversity gained the most recognition and interest from the general public, and investors had the highest probability of being influenced by the news and altering their investment decisions. The event period starts on May 25, 2020 – the day George Floyd was killed. After that day, the number of searches for BLM movement-related keywords skyrocketed, reaching a peak on Saturday, June 6, and remained high until June 19, when the search pattern normalized (see Appendix 1).

#### 2.2. Boardroom racial diversity

We retrieve the name and title of each member of the board of directors from the Refinitiv (previously, Thomson Reuters Datastream) database. As we analyze stock returns during the protests, we use the board composition effective as of May 25. To get the most precise data about the board's racial diversity, we hand-collect information on each board member's race and

classify it into four ethnic groups – African American/ Black, Asian, Hispanic, and White.<sup>5</sup> This approach allows us not only to accurately determine the board's racial composition, but also to assess for which companies this information is publicly available. Since most of the companies (about 90%) do not explicitly disclose their board's racial diversity data or the race of their board members, we use external resources to gather the necessary information.

First, we check whether the information about boardroom racial diversity is available on the company's official website and annual reports (for instance, racial diversity statistics or pictures of the board members). Second, in case of the absence of data on the company's website and annual reports, we use the NNDB database to obtain data about each member's race. The database contains a brief biography of around 40,000 of the most popular and noteworthy individuals (including board members of the largest companies) (NNDB, n.d.). Finally, if the information about a particular board member is unavailable both on the official website and the NNDB database, we use other external resources to determine the race of the board member. Similar to Carter et al. (2010), the race of each board member is determined through external resources such as news articles, LinkedIn, Bloomberg, SEC filings and other sources which directly or indirectly (via pictures) indicate information on a person's race or ethnicity.<sup>6</sup>

In the rare cases when we cannot accurately identify someone's race (less than 20 cases), we ask three random acquaintances with different backgrounds to identify it. This is done to provide a collective view and mitigate the possibility of biased data items. Based on the opinion of the majority, we make the final data entry in our database. This approach also simulates the real-life situation faced by retail investors when they are looking for similar data.

Our race detection methodology is similar to the one used by International Shareholder Services (ISS) – Directors database for their 'Ethnicity' variable. ISS director ethnicity data became available after the first draft of this paper. We use a random sample of 100 firms to cross-check our ethnicity classification with ISS data and find no differences.

<sup>&</sup>lt;sup>5</sup> In further analyses, however, we focus on only three ethnic groups—white, black, and other ethnic minorities—because of the event that we study (the BLM mass protests).

<sup>&</sup>lt;sup>6</sup> We could not find any "visual footprint" of 27 board members (out of 4,665).

#### 2.3. Stock returns

We retrieve daily stock prices for each company from January 2, 2018 through June 19, 2020, from the Refinitiv database. For dual-class share companies with both share classes listed (five companies), we go for the firm's security with the highest market capitalization. We use the four-factor model (Fama and French, 1995; Carhart, 1997) to estimate cumulative abnormal returns for each company during the event period (May 25 – June 19, 2020). To determine each company's 'normal' beta coefficients (or factor exposures) before the protests, we regress daily excess returns for a two-year estimation period from January 2, 2018 to December 31, 2019 (since afterwards the stock market was heavily affected by the Covid-19 pandemic). Although the Covid-19 crisis persisted throughout 2020, the most dramatic market response to the pandemic ("surprise") was over by March 20 (see Ramelli and Wagner (2020) for a detailed analysis of market reaction to the Covid-19 crisis from January 2 to March 20). Therefore, our event period is more than two months after the peak of the Covid-19 crisis, more than a month after the US\$2 trillion relief bill (CARES Act) and the Fed's announcement of significant expansion of primary and secondary market facilities, and is not associated with any new pandemic-related information.

Although we use two other asset pricing models – the Capital Asset Pricing Model (CAPM) (Sharpe, 1964) and the three-factor model (Fama & French, 1993) – for a robustness test, we find the four-factor model to be the most suitable for our study. First, previous research has raised concerns about the robustness of market beta as a single risk metric. Instead, we employ the Carhart's (1997) four-factor model because (1) it provides higher model accuracy compared to Fama and French (1993) three-factor model, and (2) is more appropriate than Fama and French (2015) five-factor model for the short run studies. Fama and French (2016) argue that the profitability and investment factors (of the five-factor model) are important over the long run, while the momentum factor (of the four-factor model) is more applicable for the short run (which corresponds to the scope of our study).

We compute abnormal returns only for companies with at least half of daily observations (258) in the estimation period, similar to Ramelli and Wagner (2020). The market excess return, risk-free return (the US 1-month Treasury-bill rate), and four-factor returns (Fama and French, 1995; Carhart, 1997) are from the website of Kenneth French. The event study methodology and

subsequent cross-sectional regressions are also used (but in the context of different protests) in King and Soule (2007) and Van den Broek, Langley and Hornig (2017). We calculate the daily abnormal return for each sample firm in the 25-day event period:<sup>7</sup>

$$AR_{it} = R_{it} - E(R_{it}) = R_{it} - [\hat{\beta}_{1i}(R_{mt} - R_{ft}) + \hat{\beta}_{2i}(SMB_t) + \hat{\beta}_{3i}(HML_t) + \hat{\beta}_{4i}(UMD_t)]$$
(1)

where the expression in square brackets represents the estimated normal excess stock return for firm *i*, calculated using the four-factor model with market, size, value and momentum factors, respectively. All variables are defined in Appendix 2.

Afterwards, we calculate cumulative abnormal stock returns (CAR) as the sum of daily abnormal stock returns in the given period:

$$CAR_{[t_1,t_2]} = \sum_{t=t_1}^{t_2} AR_t \tag{2}$$

In the final step, we perform ordinary least squares (OLS) regressions of individual stock cumulative abnormal returns on variables measuring boardroom racial diversity, controlling for firm characteristics and industry fixed effects:

$$CAR_i = \gamma_0 + \gamma_1 BoardDiv_i + \gamma_2 Industry_i + \gamma_3 Controls_i + n_i$$
(3)

where *BoardDiv* is a measure of boardroom diversity for which we use both the proportion of racial minority representatives on the board and a dummy variable that equals one if at least one racial minority representative is on the board (Carter at al., 2003). As suggested by Ramelli and Wagner (2020), we also control for such year 2019 (pre Covid-19 crisis) firm characteristics (*Controls*) as firm size, book-to-market, and profitability. Firm size is defined as the natural logarithm of market capitalization at the end of 2019. Book-to-market is the book value of equity divided by market value of equity at the end of 2019. Profitability is return on assets, defined as the trailing twelve months of earnings excluding extraordinary items divided by total assets at the end of 2019. All financial variables are from Compustat Quarterly. We use GICS sectors industry classification.

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<sup>&</sup>lt;sup>7</sup> As a robustness check, we adjust for abnormal returns related to any earnings or dividend announcements in the event window.

#### 3. Empirical Analysis of Stock Returns during the BLM Protests

#### 3.1. Descriptive statistics

Summary statistics of the racial composition of the board members used in our analyses are reported in Table 1. In Panel A we tabulate the number of board seats by three ethnic groups (white, black and other) and in Panel B the number of individual directors by ethnic groups, compared to the US resident population. The proportion of all ethnic minority representation on corporate boards is 15%, while the proportion of black—the focus group in the context of the BLM movement—is 8.2% of all board seats and 7.2% of all individual directors, which is much lower than the proportion of black people among US resident population (13.4%).

#### (Insert Table 1 about here)

Table 2 shows that the proportion of female directors in our sample is 27.5% (1,274 out of 4,638) and the average number of board seats per individual director is 1.19, with 1.17 board seats per male director and 1.23 seats per female director (the difference being statistically significant at the one percent level). Interestingly, we note that the number of board seats per black director is 1.34, which is significantly higher than the number of board seats per any other ethnic group (1.17). This observation is in line with the arguments that minority directors are a scarce resource and somewhat similar to the concept of "golden skirts" in the context of gender quotas in Norway. After the introduction of a mandatory (at least) 40% female representation in corporate boards in Norway from 2005, Huse (2012) discusses the trend of increasing multiboard membership of highly qualified female directors.

#### (Insert Table 2 about here)

In line with previous literature (e.g., Carter et al., 2003; Lemayian et al., 2020), we observe that larger firms—both by market capitalization and board size—have a higher number of ethnic minorities on the board. Table 3 shows that 17% of firms (85 out of 500) have no ethnic minorities on the board and 37% of firms (183 out of 500) have no black directors. These are the firms with the lowest average market capitalization and board size.

(Insert Table 3 about here)

#### 3.2. Stock returns during the BLM protests

Table 4 and Figure 1 report our results on the relationship between boardroom racial diversity and stock returns during the BLM protests in the period from May 25, 2020 to June 19, 2020. The start date is May 25, the day when George Floyd was killed. We calculate abnormal returns and cumulative abnormal returns (CARs) for 19 trading days using the Fama-French/Carhart four-factor model (see Equation (1) above). Using the four-factor adjusted cumulative returns on individual stocks, we use cross-sectional ordinary least squares (OLS) regressions to estimate the effect of racial diversity on the board (see Equation (3) above), controlling for year 2019 individual firm characteristics (firm size, book-to-market, and profitability) along with industry (11 GICS sectors) fixed effects. In line with previous literature, our main measure of racial diversity is a dummy variable that equals one if at least one minority representative—in this case black director—is on the board. The variable of interest is *At least one black director* that we hypothesize to be positively related to stock returns during the peak of the BLM mass protests. Figure 1 shows the evolution of the coefficients on our main racial diversity variable from 19 regressions of four-factor adjusted returns in two sub-samples: top-250 firms and bottom-250 firms.

#### (Insert Figure 1 about here)

Table 4 shows the results of 9 (out of 19) regressions of cumulated four-factor adjusted returns from May 26 to June 19, with a peak in the middle (Monday, June 8). Although we run regressions for all 19 trading days and report the respective coefficients in Figure 1, for brevity, in Table 4 we show only the results of every second trading day. Throughout the event window, the coefficients on *At least one black director* are positive in the full sample (Panel A) and in the sub-sample of top 250 largest companies (Panel B). Although all coefficients are positive and economically significant, they are statistically significant only in the sub-sample of largest and most popular firms. At the peak of attention to the BLM movement on June 6 (measured by Google Trends of such search words as "BLM", "protests", "racial inequality", "racial

<sup>&</sup>lt;sup>8</sup> The (not reported) results are qualitatively similar if we do not include firm controls in our four-factor adjusted cumulative return regressions, as well as if we use only market risk-adjusted cumulative returns (i.e. a one-factor model) and include firm controls, or if we use a three-factor model.

<sup>&</sup>lt;sup>9</sup> The methodology used to construct Figure 1 is similar to that used for Figure 3 in Ramelli and Wagner (2020).

injustice"), firms with at least one black director are associated with 1.8%, 3.1% and 1.3% higher adjusted cumulative abnormal returns, than firms without a single black director, in the full, top-250 and bottom-250 samples, respectively (see the shaded column in Table 4).<sup>10</sup>

#### (Insert Table 4 about here)

When splitting the sample in half, we observe that the positive relationship between boardroom racial diversity and stock returns is significant only for the largest companies. <sup>11</sup> The top-250 companies have the market capitalization (as of May 25, 2020) in the range from 21.6 billion USD to 1.38 trillion USD. This result is intuitive and consistent with increased attention to racial diversity from, for example, ESG fund managers that focus on larger companies and from general public that may boycott the largest and most visible companies with non-diverse leadership. Additionally, an increasingly vocal and organized group is retail investors that trade through, for example, Robinhood trading platform and follow investment ideas and sentiment on *reddit/wallstreetbets*, the social news and discussion platform. In a related study, Brownen-Trinh and Orujov (2021) find that the number of retail investors holding stocks in companies that expressed public support of the BLM campaign increased by about 2 percent.

As a simple measure of popularity among retail investors, we use the Robintrack popularity index for each sample company as of May 25, 2020 (at 23:59). Popularity index is measured by the total number of individual retail investors on Robinhood platform that hold at least one share of a company's stock at a given time. We take the natural logarithm of one plus the popularity index as our stock popularity measure. Not surprisingly, the sub-sample of top-250 companies are significantly more popular among retail investors—the average ln(1+popularity index) is 8.6 for the top-250 companies and 7.6 for the bottom-250 (the difference being statistically significant at the one percent level).

To assess the robustness of our result in the sample of largest and most popular companies, we first look at an alternative measure of racial diversity, namely the proportion of black directors. Panel A of Table 5 shows the results of Equation (3) regressions using the alternative racial diversity measure. The coefficients on the proportion of black directors are

<sup>&</sup>lt;sup>10</sup> Note that Monday, June 8 is the first trading day after the peak attention.

<sup>&</sup>lt;sup>11</sup> This is consistent with Bogan et al. (2021) who find no announcement returns to George Floyd's murder for firms with no black directors in a larger sample of all NYSE and NASDAQ listed shares (including smaller firms).

again positive and economically significant. A one standard deviation increase in the proportion of black directors is associated with 1% higher adjusted cumulative abnormal return at the peak of the BLM attention (June 8), than firms without a single black director. The effect is also statistically significant for most of the days in the event window, in particular from the 3<sup>rd</sup> to 12<sup>th</sup> day after the killing of George Floyd.

#### (Insert Table 5 about here)

Can this result be driven by a broader board diversity concept that would be hard to explain in the context of the BLM protests? In other words, if this stock market reaction is indeed associated with the BLM protests, we should not observe any effect of higher representation of other ethnic groups such as Asian or Hispanic or higher representation of female directors. The results in Panel B and C of Table 5 confirm that more broadly defined board diversity variables have no effect on stock returns during the BLM protests. Neither the *Proportion of all ethnic minorities* (including black directors) nor the *Proportion of female directors* are economically or statistically significantly related to the adjusted cumulative abnormal returns during the BLM protests.

Additionally, we check if our results are robust to earnings and dividends announcement effects. In particular, we extract all the dividend and earnings announcement dates during our event period and recalculate the cumulative four-factor adjusted returns from May 26 to June 19 by removing the abnormal returns on dividend and earnings announcement days. Altogether 82 sample firms had dividend or earning announcements during the sample period, and the results remain qualitatively identical when we repeat all the regressions on these adjusted cumulative abnormal returns.

Overall, the results from short-term stock price reactions show a positive association between the representation of black directors and stock returns during the peak of the BLM protests, which is consistent with the view that initially investors saw higher expected risks associated with no black representation on the board. After the initial peak, the difference in cumulative returns between racially diverse and non-diverse boards disappeared. This result is consistent with the view that as investors, media, consumers, and employees intensified their pressure on companies that lagged with respect to boardroom racial diversity, investors expected

change and priced in potential gains from reduced racial discrimination and overall welfare improvement in firms without black representation in the board.

#### 4. Empirical Analysis of Board Diversity after the BLM Protests

#### 4.1. Boardroom changes

Although the intensity of BLM mass protests diminished, it became clear that the consequences of this event will persist. One plausible explanation for the disappearing difference in cumulative returns of firms with racially diverse and non-diverse boards (reported in Figure 1 and Table 4) is that the market was expecting changes in the corporate boards with respect to racial diversity. For example, on June 10, 2020 the Canadian Council of Business Leaders Against Anti-Black Systemic Racism announced the formation of the Council and launched the BlackNorth Initiative "to increase the representation of Blacks in boardrooms and executive suites across Canada", stating that the "market is moving to help close the diversity deficit". <sup>12</sup>

To measure the extent of boardroom changes in the aftermath of the BLM protests, we use Refinitiv database to extract information on all the directors that joined and left the board in the time period from May 26, 2020 until July 15, 2021 (i.e. thirteen months after the killing of George Floyd). For this analysis we use a sample of 496 firms that were listed as of July 15, 2021 (i.e., we exclude 4 firms that merged within this time period) and find that 305 (or 61.5%) of the sample firms experienced changes in the board composition. Panel A of Table 6 shows that the total increase in the number of board seats was 1.1%, while the number of board seats held by black directors increased by 18%. As a result, the proportion of total board seats held by black directors increased from 8.2% to 9.6%. Panel B of Table 6 shows that 31% of all the new directors are black, and from Panel C we see that one year after the BLM protests the proportion of firms without black representation decreased from 36.3% to 27.8%. It is noteworthy that 10.7% of the sample firms (53 out of 496) are firms that did not have a single black director but hired one after the protests. At the same time, in 11 firms the only black director left and those firms lost black representation in the board. As to the number of board seats per individual

<sup>&</sup>lt;sup>12</sup> See <a href="https://blacknorth.ca/canadian-council-of-business-leaders-against-anti-black-systemic-racism-announces-formation-launch-of-blacknorth-initiative/">https://blacknorth.ca/canadian-council-of-business-leaders-against-anti-black-systemic-racism-announces-formation-launch-of-blacknorth-initiative/</a>.

director represented in our sample, results are similar to the ones reported in Table 2. The average number of board seats per black director as of July 15, 2021 is 1.28 compared to 1.17 for other ethnic groups (untabulated).

#### (Insert Table 6 about here)

We further explore the sample of 53 firms that added a single new black director and find that the average number of board seats in these firms was 10.4 before the BLM protests and 11.1 after the protests (untabulated), the difference being statistically significant at the one percent level. Also, a nonparametric sign test confirms the significant difference (only 4 of these firms reduced the board size, while 33 increased, and 6 kept the same number of board members). The average number of board seats in other firms that added new directors also increased (from 11.1 to 11.2 board seats), but the difference is not statistically significant. Most of the new appointments (more than 80%) happened between the annual shareholder meetings and the new directors were put up for shareholder vote at the closest annual meeting. There is no significant difference between the timing of black and other director appointments one year after the BLM protests.

That companies would satisfy boardroom diversity requirements by increasing their board's size is in line with predictions made in the Toomey et al. letter (2021) in the context of NASDAQ's diversity rule. It could be justified from business perspective as firms are facing more complex global challenges such as Covid-19 pandemic, climate change and sustainability issues, but the tendency of growing board size is potentially worrisome as larger boards have been associated with less effective corporate governance and lower valuations (Yermack, 1996). Nevertheless, the board size changes could be temporary and go down in 2-3 years as incumbent directors retire. Overall benefits of increased racial diversity by reducing public pressure and litigation risk are potentially higher than the cost of adding one additional board member.

To address the question about the quality of the new diverse directors, we extract information on director characteristics from the BoardEx database. Out of 345 new directors, we find information for 316 directors. As a reference, we summarize the characteristics of 3,736 unique directors in S&P500 firms as of the latest available annual report one year before the killing of George Floyd. The BoardEx data are available for 461 companies. Panel A of Table 7 shows time to retirement, time in the board, total number of listed company board seats (ever

held), total number of current listed company board seats held, and the number of professional and academic qualifications held. The incumbent black directors compared to other directors are younger (8.1 vs. 5.9 years to retirement), have similar overall board experience (3.66 vs. 3.70 board seats), have more current listed company board seats (1.97 vs. 1.77) and have a higher number of qualifications (2.54 vs. 2.22). This result is consistent with previous evidence that racial-minority board representatives are more academically educated (Hillman, Cannella, and Harris, 2002).

#### (Insert Table 7 about here)

From Panel B of Table 7 we see that the only difference between new black directors and other directors is the number of qualifications. Newly appointed 98 black directors have significantly higher number of academic and professional qualifications (2.47 vs. 2.13) than other 218 new directors. The qualifications of new black directors are similar to those of incumbent black directors (2.54), but significantly higher than those of incumbent non-black directors (2.22). From Panel C we see that the average number of qualifications of newly appointed black directors joining firms without a prior black representation (potential token directors) is 2.13, which is lower than the number of qualifications of black directors joining firms with at least one other black director (2.75 qualifications), but the same as the number of qualifications for new non-black directors.

#### 4.2. The effects of boardroom changes

We turn next to the question of the effects of boardroom changes one year after the killing of George Floyd. What firm characteristics are related to black director representation in the boards before and after the BLM protests? Are companies that increased representation of black directors associated with higher or lower valuations?

First, we identify what company characteristics are associated with the representation of black directors on company boards before the BLM protests. The dependent variable is a dummy variable taking the value of 1 if there was at least one black director as of May 25, 2020 and the value zero otherwise. In Panel A of Table 8, we report the results of a probit model and find that, not surprisingly, companies with at least one black director are significantly bigger (by market capitalization) and have larger boards. Although firm and board size are slightly positively

correlated, we do not observe any multicollinearity issues as these variables capture different firm characteristics. We control for growth opportunities (book-to-market variable), ethnic composition in the county in which a firm is headquartered (proportion of black population in the county), firm complexity (measured by the natural logarithm of different SIC 4-digit industry codes<sup>13</sup>), and industry fixed effects (GICS sectors). Using this probit model, we then calculate the propensity score or, in other words, the probability of having at least one black director for each firm in our sample.

#### (Insert Table 8 about here)

In Panel B of Table 8 we show the transition matrix of firms with at least one (no) black directors before and after the BLM protests and report their respective propensity scores. We observe that 53 firms that had no black directors before the killing of George Floyd and at least one black director after this event had significantly lower propensity scores (0.546) compared to firms before the event (0.716). In other words, previous determinants of board diversity such as firm and board size became less important, and black directors were added across a wide range of firms with lower propensity scores. Nevertheless, the propensity score of firms that transitioned from no black directors to at least one (0.546) is significantly higher than that of firms remaining without a single black director (0.475).

To address the question of valuation effects of increased boardroom diversity, we use the difference in differences regression model, in which the treated firms are the ones that increased the representation of black directors (from the end of Quarter 2 (Q2) of 2020 to the end of Q2 of 2021) and the control firms – those that did not. The dependent variable is Tobin's Q that is measured at two points in time – at the end of Q2 2020 and Q2 2021. There are altogether 97 (treated) firms that increased the number of black directors in their boards. We control for firm size (Ln of market capitalization), profitability (return on assets, defined as the trailing twelve months of earnings excluding extraordinary items divided by total assets), and industry effects. The results in Table 9 show that firm valuations are significantly higher in Q2 2021 compared to Q2 2020, and profitability has a significant positive relation to Tobin's Q, as expected. We do not find any treatment effect. In other words, the change in Tobin's Q in firms

<sup>&</sup>lt;sup>13</sup> The results are similar if we use the natural logarithm of different SIC 2-digit industry codes.

that increased the number of black directors is not significantly different from the change in those firms that did not.

#### (Insert Table 9 about here)

#### 4.3. Boardroom racial diversity and portfolio returns

In this section, we examine longer-term stock price reactions in companies with different levels of racial diversity. After observing the peak of the BLM mass protests and short-term stock abnormal stock returns (Table 4), one could design a simple investment strategy that buys firms with at least one black director and shorts firms with no black directors. Table 10 documents the results of weekly rebalanced equally-weighted portfolio regressions (from May 29, 2020 until June 25, 2021), using the Fama-French-Carhart four-factor model. There are 64 rebalancing events – 53 positives and 11 negatives. The variable of interest is Alpha – the abnormal return after controlling for market, size (SMB), value (HML) and momentum (UMD) factors. Column (1) reports the results for the equally-weighted portfolio of firms with no black directors at the beginning of the respective month, Column (2) – for the portfolio of firms with at least one director, and Column (3) – for the market-neutral portfolio that is long in racially diverse firms and short in racially not diverse firms. The results in Column 3 show that the alpha of this market-neutral portfolio is not significantly different from zero, suggesting that boardroom racial composition alone has not been a significant factor one year after the peak of the BLM protests.

(Insert Table 10 about here)

#### 4.4. Discussing diversity in the proxy statements

Finally, we examine the effect of the BLM protests on company disclosures with respect to racial diversity. As the BLM protests illuminated issues of racial inequality and systemic racism, investors and the wider public increasingly scrutinize companies for their actions on racial inclusion. This has been a hot topic during the 2021 proxy season: "'Something we are going to spend a lot of the next proxy season engaging on is getting better workplace demographic disclosure so we can actually hold companies accountable," Katie Koch, a managing director at Goldman Sachs Asset Management, told a conference in September." (Financial Times, "Black Lives Matter provokes change on Wall Street", October 12, 2020)

To address this question, we read a number of proxy statements (DEF 14a filings) in search of the most common words that describe a company's racial diversity policy. It is quite evident that often companies use standard phrases and almost identical paragraphs. And it is not unusual for companies without a single racial minority representative on the board to state that they embrace board diversity with respect to gender, ethnicity, field of expertise, and business skills. To determine the extent to which companies discuss race, ethnicity, and diversity in their disclosures, we perform a simple textual analysis of the proxy statements filed by companies. We retrieve the proxy statements (DEF 14a) from the SEC EDGAR database using CIK identifiers and parse them using a Python code in a search for two regular expressions: (1) including phrases 'race', 'racial', 'person of color', or 'ethnic' (we first manually read some sample reports and determine that these are the words that are most commonly used to talk about the racial diversity of the board), and (2) including the word 'diversity'. As a simple measure of companies' focus on racial diversity in words, we calculate two measures – the number of race-related words and the number of diversity-related words per 100,000 total words in the proxy statement.

Panel A of Table 11 shows that the correlation between actual board diversity and talking about it in the proxy statement is rather low, at around 0.07. The only significant correlation (0.14) is between the number of diversity-related words per 100,000 total words and the actual proportion of black directors.

#### (Insert Table 11 about here)

More interestingly, Panel B of Table 11 and Figure 2 show that 'talking about diversity' has significantly increased after the emergence of the BLM protests. Using a sample of 457 companies that have filed their proxy statements after May 25, 2020, we find that the average number of words referring to 'race', 'racial', 'person of color', or 'ethnic' per 100,000 words in the latest proxy statement before May 25 is 1.2 compared to an average of 28.8 in the first proxy statement after May 25, which is significantly higher at the 1% level. Similar results are obtained using the word 'diversity'.

(Insert Figure 2 about here)

As a case study, we analyze the company with the highest number of words (130) referring to race and ethnicity in the post BLM protest period – Amazon Inc. From the proxy statement filed with SEC on April 14, 2021<sup>14</sup>, we see that the company had two shareholder proposals (ITEMS 6 and 9) related to diversity, with the board of directors recommending a vote "Against" on both proposals. The first proposal (Item 6) requested additional reporting on gender/racial pay and the second proposal (Item 9) requested a diversity and equity audit report. Ironically, while discussing racial and other diversity issues at length in the proxy statement, Amazon was one of the few companies that had one black board member before the peak of the BLM protests and no black directors one year later. In February 2021, Rosalind (Roz) Brewer stepped down from Amazon's board of directors to become the only black female CEO of a Fortune 500 company (Walgreens).

Overall, the results indicate that companies have been paying more attention to racial diversity issues on the board following the Black Lives Matter protests. We have observed increased disclosures of racial equity topics in the proxy statements, as well as significant increase of black director representation in the boards. In the meantime, we do not find any valuation or stock performance effects related to boardroom racial diversity one year after the killing of George Floyd, nor do we see any deterioration in the quality of newly appointed directors. The finding that racial diversity can be increased at an unprecedented speed without a loss in value or deviation from an optimal board structure should give the market reassurance that boosting boardroom diversity is possible if there is a strong multi-channel pressure from investors, consumers, employees, and regulators.

#### 6. Conclusions

In this study, we examine investor reaction and potential reevaluation of risks and benefits associated with boardroom racial diversity during the BLM protests and one year after the protests. To do so, we exploit the widespread BLM campaign as an exogenous shock and

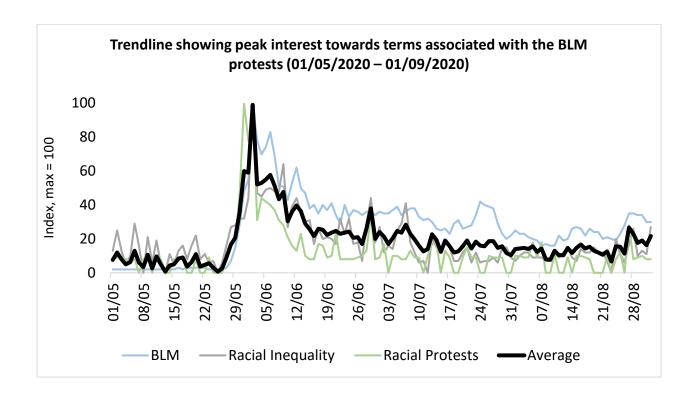
<sup>&</sup>lt;sup>14</sup> See <a href="https://sec.report/Document/0001104659-21-050333/">https://sec.report/Document/0001104659-21-050333/</a>.

analyze the stock returns of companies with black representation in the board versus those of companies without a single black director during the BLM protests. We find evidence that during the spike of the BLM movement investors perceived companies with higher representation of black directors more favorably than companies with a less racially diverse board. This result is particularly pronounced among the largest and most popular companies.

Looking beyond the short-term effect on stock prices, we find that companies have significantly increased the discussion of general diversity and in particular ethnic diversity related issues in their proxy statements and that the BLM protests served as a catalyst for significant changes in the boardroom racial composition. One year after the killing of George Floyd, 10.7% of the sample firms added at least one black director compared to having no black representation on the board before the protests, and the proportion of board seats held by black directors increased from 8.2% to 9.6%, with 31% of newly appointed directors being black. Our results show that companies tend to add diverse directors by increasing board size but at the same time not reducing quality standards for newly appointed directors.

At the same time, we do not find any longer-term (one year) valuation or stock performance effects in companies that increased their boardroom racial diversity, and the newly appointed diverse directors have a higher number of qualifications than other new directors or other incumbent directors. This lack of valuation effect is consistent with the view that the multichannel pressure from investors, consumers, employees and regulators incentivized firms to reassess the risks associated with racial bias in the boards and transition to a potentially new optimal board structure. In the context of increasing pressure for boards to embrace different dimensions of diversity, such as gender, race, tenure, and skills (for example, sustainability, geopolitical risks, cybersecurity, and other), our study shows that boardroom diversity can be considerably and rapidly boosted without a loss in value, if there is a strong multichannel pressure from the market, as observed during the widespread BLM campaign.

Appendix 1. BLM protests-related keyword search popularity in Google trends



### Appendix 2. Variable descriptions

Variable	Description	Source
$AR_{it}$	Daily abnormal stock return (alpha) for company $i$ , calculated as $R_{it}$ - $E(R_{it})$	Calculated
$R_{it}$	Actual daily excess stock returns for company i	Datastream
$E(R_{it})$	Expected excess stock returns for company <i>i</i> , predicted by the Fama, French, Carhart Four-factor model; factor exposures are estimated during the period Jan 2, 2018 – Dec 31, 2019	Calculated
$R_f$	Market risk-free rate (the U.S. 1-month Treasury-bill rate)	Kenneth French's website
$R_m$	Daily market return (using S&P 500 index as a proxy)	Kenneth French's website
SMB	Historical excess returns between small-cap and large-cap companies (Fama & French, 1995)	Kenneth French's website
HML	Historic excess returns of value stocks (high P/B ratio) over growth stocks (low P/B ratio) (Fama & French, 1995)	Kenneth French's website
UMD	Historical excess returns of highest performing stocks over lowest performing stocks (Carhart, 1997)	Kenneth French's website
CAR [t1; t2]	Company cumulative abnormal stock returns from the date $t_1$ to $t_2$	Calculated
Industryi	Set of dummies identifying GICS industry group	Datastream

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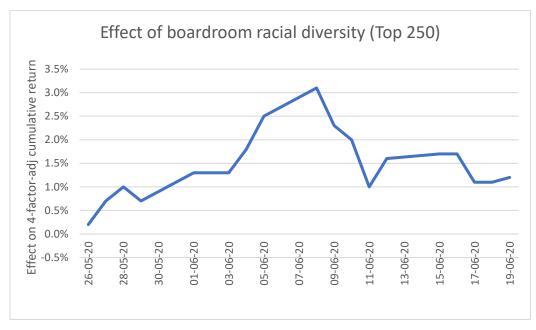
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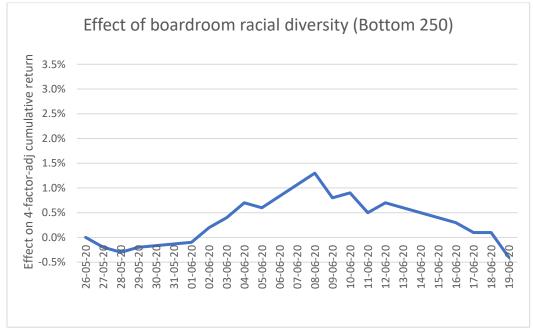
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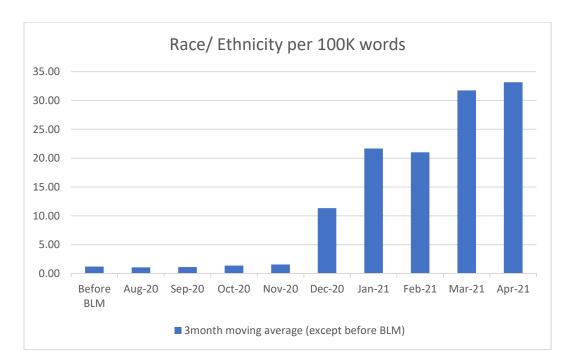
Figure 1 Stock returns and racial diversity on the board





The graphs show the impact of boardroom racial diversity on cumulative four-factor adjusted abnormal returns for each day during the BLM protest period between May 26, 2020 and June 19, 2020 (as specified in Equation (3)). The graphs show the coefficients for *At least one black director* dummy. The coefficients are from the regressions that control for GICS industry group fixed effects and firm characteristics (size, book-to-market and profitability). The sample includes top 250 (the first graph) and bottom 250 (the second graph) companies by market capitalization (as of May 25, 2020) in the S&P 500 index.

Figure 2
Race/ Ethnicity related words in the proxy statements before and after the BLM protests



The graph reports the 3-month moving average number of race and ethnicity related words in the proxy statements before and one year after the BLM protests. Race-/Ethnicity-related words per 100,000 words is the number of words such as 'race', 'racial', 'person of color', 'ethnic' or 'ethnicity' mentioned in a proxy statement (Def 14a) divided by the total number of words in the respective statement. The sample includes 457 companies in the S&P 500 index that (as of June 1, 2021) have filed proxy statements both before and after May 25, 2020.

Table 1 Board composition by ethnic groups (as of May 25, 2020)

Panel A. Number of board seats by ethnic groups

Ethnicity	Number of board	Proportion of total
	seats in the sample	board seats
White	4,655	84.3%
African American/ Black	450	8.1%
Other ethnic minorities	392	7.1%
N/A	27	0.5%
Total	5,524	100.0%

Panel B. Number of individual directors by ethnic groups

Ethnicity	Number of unique	Proportion of total	US resident
	directors in the directors		population by
	sample		ethnicity (2019)
White	3,966	85.0%	76.3%
African American/ Black	336	7.2%	13.4%
Other ethnic minorities	336	7.2%	10.3%
N/A	27	0.6%	
Total	4,665	100.0%	100%

This table shows summary statistics of board composition by ethnic groups. Panel A shows the number of board seats for each ethnic group in the sample. Panel B shows the number of unique directors for each ethnic group. The last column in Panel B reports the US resident population as of 2019 (Statista, n.d.).

Table 2 Number of board seats per director

Devel A			Total	Difference (p-value)
Panel A.	A fui a a r	Oth an atheria		
	African	Other ethnic		
	American/	groups (incl.		
	Black	white)		
Average number of board seats	1.34	1.17	1.19	0.000***
Number of individuals	336	4,302	4,638	
Panel B.				
	African	Other ethnic		
	American/	groups (Male)		
	Black (Male)			
Average number of board seats	1.34	1.15	1.17	0.000***
Number of individuals	232	3,132	3,364	
Panel C.				
	African	Other ethnic		
	American/	groups (Female)		
	Black (Female)			
Average number of board seats	1.35	1.22	1.23	0.020**
Number of individuals	104	1,170	1,274	

This table reports the average number of board seats held by each African-American/ Black director and directors of other ethnic groups (including white). Panel A shows the comparison between the average number of board seats by ethnic group, irrespective of gender. Panels B and C split the Panel A sample into male and female subsamples. The last column reports the p-value of a two-sided mean difference test.

**Table 3 Boardroom racial diversity and firm size** 

Panel A.

Number of ethnic minorities on the board	Number of sample firms	Average firm size, Ln(Market Cap)	Average board size (seats)
0	85	9.5	9.9
1	154	10.0	10.8
2	149	10.2	11.5
3	74	10.3	11.6
4-7	38	10.8	12.1
Total	500	10.1	11.0

Panel B.

Number of black directors on the board	Number of sample firms	Average firm size, Ln(Market Cap)	Average board size (seats)
0	183	9.69	10.2
1	200	10.26	11.4
2	102	10.48	11.8
3	14	10.14	12.6
4	1	11.94	13.0
Total	500	10.10	11.0

Panel A shows the frequency of firms, average market capitalization (measured by the natural logarithm of market capitalization as of May 25, 2020) and board size, based on how many minority board members (from 0 to 7) a company has. Panel B reports the respective information classified by the number of black directors.

Table 4
Boardroom racial diversity and stock returns during the BLM protests

Panel A. Full sample

	May 27	May 29	June 2	June 4	June 8	June 10	June 12	June 16	June 18
VARIABLES	CAR(2)	CAR(4)	CAR(6)	CAR(8)	CAR(10)	CAR(12)	CAR(14)	CAR(16)	CAR(18)
At least one black director	0.001	0.000	0.005	0.011	0.018*	0.012	0.010	0.007	0.003
	(0.299)	(0.065)	(1.009)	(1.445)	(1.688)	(1.485)	(1.247)	(0.850)	(0.390)
Size	-0.003	0.000	-0.006***	-0.009**	-0.010**	-0.004	-0.005	-0.005	-0.005
	(-1.363)	(0.054)	(-2.687)	(-2.566)	(-2.088)	(-1.061)	(-1.395)	(-1.228)	(-1.196)
Book-to-market	0.001	-0.007	-0.006	-0.012	-0.014	-0.006	0.009	0.007	0.009
	(0.149)	(-0.849)	(-0.698)	(-0.842)	(-0.693)	(-0.429)	(0.533)	(0.403)	(0.576)
Profitability	-0.019	0.057	-0.008	-0.077	-0.123	-0.087	-0.074	-0.099	-0.103
•	(-0.565)	(1.565)	(-0.209)	(-1.233)	(-1.363)	(-1.330)	(-1.062)	(-1.304)	(-1.388)
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	494	494	494	494	494	494	494	494	494
R-squared	0.250	0.278	0.260	0.226	0.187	0.196	0.176	0.194	0.166
Panel B. Top 250 companies									
At least one black director	0.007	0.007	0.013**	0.018**	0.031**	0.020**	0.016**	0.017**	0.011
	(1.300)	(1.372)	(2.217)	(2.187)	(2.412)	(2.248)	(2.001)	(1.990)	(1.344)
Firm and industry controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	248	248	248	248	248	248	248	248	248
R-squared	0.200	0.322	0.352	0.258	0.217	0.261	0.236	0.249	0.227
Panel C. Bottom 250 companies									
At least one black director	-0.002	-0.002	0.002	0.007	0.013	0.009	0.007	0.003	0.001
	(-0.266)	(-0.304)	(0.222)	(0.584)	(0.804)	(0.710)	(0.577)	(0.247)	(0.064)
Firm and industry controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	246	246	246	246	246	246	246	246	246
R-squared	0.325	0.329	0.258	0.251	0.214	0.219	0.195	0.230	0.211

This table shows results of cross-sectional ordinary least squares (OLS) regressions of individual stock returns for ten different time periods. Each period starts on May 25 (the day of George Floyd killing) and ends on the date identified in the column headers. The number of trading days included in the time period is specified in the parentheses next to "CAR". The dependent variables are Fama-French-Carhart four factor-adjusted cumulative returns. *At least one black director* is a dummy variable equal to one if the number of black directors is equal or higher than one and zero otherwise. Panel A reports full sample results, Panel B includes top 250 and Panel C bottom 250 companies by market capitalization (as of May 25, 2020) in the S&P 500 index (excluding six companies with insufficient data in the estimation period). All regressions control for standard firm characteristics (size, book-to-market, and profitability (return on assets)) and GICS sector industry fixed effects. T-statistics based on robust standard errors are presented in parentheses. \*p <.1; \*\*p <.05; \*\*\*p <.01.

Table 5
Boardroom diversity and stock returns during the BLM protests (Top 250 companies)

	May 27	May 29	June 2	June 4	June 8	June 10	June 12	June 16	June 18
VARIABLES	CAR(2)	CAR(4)	CAR(6)	CAR(8)	CAR(10)	CAR(12)	CAR(14)	CAR(16)	CAR(18)
Panel A.									
Proportion of black directors	0.047	0.070**	0.088***	0.095*	0.140*	0.098*	0.071	0.075	0.051
	(1.559)	(2.466)	(2.763)	(1.956)	(1.913)	(1.946)	(1.533)	(1.612)	(1.137)
Firm and industry controls	Yes								
Observations	248	248	248	248	248	248	248	248	248
R-squared	0.201	0.330	0.355	0.254	0.208	0.256	0.230	0.244	0.224
Panel B.									
Proportion of all ethnic minorities	-0.031	-0.009	-0.016	-0.021	-0.061	-0.045	-0.046	-0.038	-0.028
1	(-1.496)	(-0.456)	(-0.822)	(-0.728)	(-1.402)	(-1.429)	(-1.512)	(-1.223)	(-0.802)
Firm and industry controls	Yes								
Observations	248	248	248	248	248	248	248	248	248
R-squared	0.203	0.317	0.340	0.245	0.203	0.252	0.231	0.242	0.224
Panel C.									
Proportion of female directors	0.027	-0.037	0.011	0.007	0.027	0.026	0.022	0.035	0.011
-	(0.871)	(-1.164)	(0.317)	(0.142)	(0.412)	(0.519)	(0.456)	(0.674)	(0.227)
Firm and industry controls	Yes								
Observations	248	248	248	248	248	248	248	248	248
R-squared	0.198	0.323	0.339	0.244	0.198	0.247	0.225	0.240	0.222

This table shows results of cross-sectional ordinary least squares (OLS) regressions of individual stock returns for ten different time periods. Each period starts on May 25 (the day of George Floyd killing) and ends on the date identified in the column headers. The number of trading days included in the time period is specified in the parentheses next to "CAR". The dependent variables are Fama-French-Carhart four factor-adjusted cumulative returns. *Proportion of black directors* (Panel A) is the number of black directors divided by the total number of board members. *Proportion of all ethnic minorities* (Panel B) is the number of female directors (Panel C) is the number of female directors divided by the total number of directors. The sample consists of 250 largest companies from the S&P 500 index (excluding two companies with insufficient data in the estimation period). All regressions control for standard firm characteristics (size, book-to-market, and profitability (return on assets)) and GICS sector industry fixed effects. T-statistics based on robust standard errors are presented in parentheses. \*p <.1; \*\*p <.05; \*\*\*p <.01.

Table 6 Board composition by ethnic groups (as of July 15, 2021)

Panel A

Ethnicity	Number of board	Proportion of	Number of board	Proportion of	Change
	seats (before BLM)	total board seats	seats (after BLM)	total board seats	(3) vs. (1)
	(1)	(2)	(3)	(4)	
White	4,627	84.3%	4,585	82.7%	-0.9%
Black	450	8.2%	531	9.6%	+18.0%
Other	385	7.0%	406	7.3%	+5.5%
N/A	26	0.5%	25	0.5%	-3.8%
Total	5,488	100.0%	5,547	100%	+1.1%

#### Panel B

Ethnicity	Number of new	Proportion of total	Number of leaving	Proportion of
	directors	board seats	directors	total directors
White	198	57.4%	240	83.9%
Black	107	31.0%	26	9.1%
Other	40	11.6%	19	6.6%
N/A			1	0.3%
Total	345	100.0%	298	100%

#### Panel C

Number of black	Number of firms	Proportion of	Number of firms	Proportion of
directors on the board	(before BLM)	all firms	(after BLM)	all firms
0	180	36.3%	138	27.8%
1	199	40.1%	218	44.0%
2+	117	23.6%	140	28.2%
Total	496	100%	496	100%

This table shows summary statistics of board changes by ethnic groups. Panel A shows the number of board seats for each ethnic group before the BLM protests (as of May 25, 2020) and one year after (as of July 15, 2021). The sample includes 496 S&P500 firms (excluding 4 firms that merged or were taken over during the respective time period). Panel B shows the number of new and leaving directors by ethnicity. Panel C reports the number of firms classified by the number of black directors on the board before and after the BLM protests.

Table 7
Director characteristics

Total	Difference
	(p-value)

Panel A. Incumbent directors (before BLM)

	Black directors	Other directors		
Time to Retirement (years)	8.08	5.87	6.05	0.000***
Time in Board (years)	6.96	8.52	8.39	0.001***
Total Listed Comp Board Seats	3.66	3.70	3.70	0.830
Total Current Listed Comp Board Seats	1.97	1.77	1.79	0.004***
Number of Qualifications	2.54	2.22	2.25	0.000***
Number of individuals	269	3,467	3,736	

Panel B. New directors (after BLM)

	Black	Other		
	directors	directors		
Time to Retirement (years)	13.07	12.00	12.32	0.242
Total Listed Comp Board Seats	2.38	2.77	2.65	0.240
Total Current Listed Comp Board Seats	1.82	1.63	1.69	0.304
Number of Qualifications	2.47	2.13	2.23	0.027**
Number of individuals	98	218	316	

Panel C. New black directors (after BLM)

	"Token" directors	"Critical mass" directors		
Time to Retirement (years)	12.85	13.24	13.07	0.796
Total Listed Comp Board Seats	2.22	2.51	2.38	0.637
Total Current Listed Comp Board Seats	1.60	2.00	1.82	0.392
Number of Qualifications	2.13	2.75	2.47	0.006*
Number of individuals	45	53	98	

This table shows the characteristics of incumbent (Panel A) and newly appointed (Panels B and C) directors in a sample of S&P 500 firms. All variables come from the BoardEx database. *Number of qualifications* (NoQual) is the number of professional and academic (undergraduate level and above) qualifications achieved. Panel A reports the comparison of director characteristics by ethnic group in a sample of S&P500 companies (461 companies with available data), as of the annual report date closest to (before) May 25, 2020. Panel B shows the characteristics of newly appointed directors (within 13 months) after the BLM protests. Panel C shows the characteristics of black directors in two subsamples—potential "token" directors (newly appointed directors joining firms without a single black director) and "critical mass" directors (joining firms with at least one incumbent black director). The last column reports the p-value of a two-sided mean difference test.

Table 8
Board diversity and firm characteristics

Panel A. Probit regression

VARIABLES	At least one black director (dummy)
Board size	0.162***
	(0.0379)
Size (Ln Mcap)	0.426***
•	(0.0785)
Book-to-market	-0.187
	(0.228)
Proportion of black population (HQ county)	0.552
	(0.539)
Complexity (Ln Different SIC4)	0.140
	(0.163)
Constant	-6.079***
	(0.906)
Industry dummies	Yes
Observations	500
Pseudo R-squared	0.180

Panel B. Transition matrix

Propensity score (Number of firms)		At least one black director AFTER the BLM protests		Total
		Yes	No	-
	Yes	.716	.703	.716
At least one black		(305)	(11)	(316)
director BEFORE the BLM protests	No	.546	.475	.496
the BLW protests		(53)	(127)	(180)
	Total	.691 (358)	.493 (138)	.636 (496)

This table shows the results of a probit regression (in Panel A) in which the dependent variable is a dummy variable taking the value of 1 if there was at least one black director as of May 25, 2020 and the value zero otherwise. *Board size* is the number of board seats; *Size* (*Ln Mcap*) is the natural logarithm of market capitalization; *Book-to-market* is the book value of equity divided by the market value of equity; all measured as of May 25, 2020. *Proportion of black population (HQ county)* is the percentage of black population in the county in which the company is headquartered (Source: William H. Frey analysis of US Census population estimates, 2018; available at https://www.brookings.edu/research/americas-racial-diversity-in-six-maps/). *Complexity (Ln Different SIC4)* is the natural logarithm of the number of different SIC 4-digit codes (plus one) for the company. *Industry dummies* are defined using GICS sector industry classification. Standard errors are presented in parentheses. \*p <.1; \*\*p <.05; \*\*\*p <.01. Panel B shows the propensity scores estimated using the probit regression in Panel A, for each of the groups in the transition matrix. The number of firms in each group is reported in parentheses.

Table 9
Board diversity changes and Tobin's Q (difference-in-differences)

VARIABLES	Tobin's Q
Time	1.322***
	(6.372)
Treated	0.017
	(0.108)
Time*Treated (dif-in-dif)	-0.145
	(-0.500)
Size (Ln Mcap)	0.140**
	(2.163)
Profitability	19.223***
	(6.404)
Constant	-0.585
	(-0.855)
Industry dummies	Yes
Observations	921
Adjusted R-squared	0.340

This tables shows the results of the difference-in-differences regressions of Tobin's Q (panel data). Tobin's Q is the market value of equity plus book value of total assets minus book value of equity, all divided by the book value of total assets; measured at two time points: Quarter 2 of 2020 (Before the boardroom changes) and Quarter 2 of 2021 (After the boardroom changes). *Time* is a dummy variable equal to one in Q2 2021 (after) and zero in Q2 2020 (before). *Treated* is a dummy variable equal to one for firms that increased the number of black directors on the board, and zero otherwise. *Size* (*Ln Mcap*) is the natural logarithm of market capitalization. *Profitability* is return on assets, measured as trailing twelve-month earnings (before extraordinary items) divided by total assets. *Industry dummies* are defined using GICS sector industry classification. T-statistics based on robust standard errors are presented in parentheses. \*p <.1; \*\*p <.05; \*\*\*p <.01.

Table 10 Boardroom racial diversity and portfolio returns

	Firms with no black directors (1)	Firms with at least one black director (2)	Long/Short portfolio (3)
Alpha (weekly)	-0.155	-0.148*	0.007
	(-1.526)	(-1.989)	(0.085)
Market factor	0.986***	0.938***	-0.048
	(23.380)	(30.304)	(-1.479)
SMB	0.127**	0.059	-0.068
	(2.171)	(1.379)	(-1.491)
HML	0.274***	0.317***	0.043
	(5.370)	(8.474)	(1.089)
UMD	-0.126***	-0.078***	0.048
	(-3.200)	(-2.716)	(1.554)
Observations	56	56	56
R-squared	0.941	0.963	0.0849

This table documents results of Fama-French-Carhart four-factor weekly regressions (from May 29, 2020 until June 25, 2021). Three separate weekly rebalanced portfolios are generated: 1) a portfolio of firms with no black directors (Column 1) at the beginning of the respective week, 2) a portfolio of firms with at least one black director, and 3) a market-neutral portfolio that is long in firms with at least one black director and short in firms with no black directors. The dependent variable is the equally-weighted excess return of the portfolio stocks. Market factor is the excess return on the equally-weighted market index. HML factor is the return on a zero-investment portfolio constructed by shorting low book-to-market stocks and buying high book-to-market stocks. SMB factor is the return on a zero-investment portfolio constructed by shorting a portfolio of small firms. UMD factor is the return on a zero-investment portfolio constructed by shorting a low prior return portfolio and investing in a high prior return portfolio. T-statistics are reported in parentheses. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Table 11 Racial diversity disclosure in proxy statements before and after May 25, 2020

Panel A

	(Actual) Proportion of black directors	(Actual) Proportion of all ethnic minorities	(Talking) Race/ Ethnicity words
(Actual) Proportion of black directors	1		
(Actual) Proportion of all ethnic minorities	0.566	1	
(Talking) Race/ Ethnicity words	0.072	0.032	1
(Talking) Diversity words	0.143	0.067	0.501

Panel B

	Pre-BLM	Post-BLM	Difference (p-value)
Race-/ Ethnicity-related words per 100,000 words	1.195	28.773	0.000***
Diversity-related words per 100,000 words	4.100	57.764	0.000***
Total number of words	312.1K	329.5K	0.000***

This table presents analysis of diversity disclosures in proxy statements. The sample includes 457 companies in the S&P 500 index that (as of June 1, 2021) have filed proxy statements both before and after May 25, 2020. Panel A reports the correlation matrix of diversity disclosure and actual boardroom racial diversity variables. Significant correlations (at the 5% level) are indicated in bolded numbers. Proportion of black directors is the number of black directors divided by the total number of board members. Proportion of all ethnic minorities is the number of board members representing ethnic minorities (including black directors) divided by the total number of board members. Race-/Ethnicity-related words per 100,000 words is the number of words such as 'race', 'racial', 'person of color', 'ethnic', or 'ethnicity' mentioned in a proxy statement (Def 14a) divided by the total number of words in the respective statement. Diversity words per 100,000 words is the count of word 'diversity' in a proxy statement divided by the total number of words. Panel B shows the average number of race/ethnic related words per 100,000 words and diversity related words per 100,000 words in firms' proxy statements. Pre-BLM refers to the latest proxy statements filed before May 25, 2020, and Post-BLM refers to the first proxy statements filed after May 25, 2020. The last column reports the p-values of a two-sided mean difference test.

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The ECGI will produce and disseminate high quality research while remaining close to the concerns and interests of corporate, financial and public policy makers. It will draw on the expertise of scholars from numerous countries and bring together a critical mass of expertise and interest to bear on this important subject.

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