Is Davos More Than a Boondoggle?

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Abstract

Each year since 1971, the World Economic Forum (WEF) Annual Meeting in Davos, Switzerland, has attracted the leadership of global corporations, governmental and non-governmental organizations, as well as other public figures. However, attending the Davos summit is costly for companies with estimated costs of US\$40,000 per delegate. On the one hand, WEF attendance could generate a value added for companies if it generates a business network and buys valuable political support. On the other hand, it could be wasteful in the sense that it generates only private benefits to the attendees themselves without measurable effects for their companies. Our paper is the first to study whether companies draw economic benefits from attending Davos. We introduce a novel database on WEF attendees over the 2009— 2018 period and match it with firm-level data on stock market performance and corporate ratings. We then use fixed-effects estimations and—in a future version of this paper—a synthetic control method to test whether companies present at Davos perform better. Our donor pool of counterfactual companies consists of MSCI-ACWI corporations from the same sector. Our preliminary findings do not provide evidence that the most famous summit of global leaders creates direct value to businesses.

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Keywords: World Economic Forum, international organizations, business leaders, stock markets, corporate ratings, summits

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Heading to Davos, Switzerland, to meet with World and Business Leaders and bring Good Policy and additional Hundreds of Billions of Dollars back to the United States of America! We are now NUMBER ONE in the Universe, by FAR!!

US President Donald J. Trump Twitter, January 21, 2020

1 Introduction

The World Economic Forum (WEF), a not-for-profit organization founded in 1971, describes itself as "the International Organization for Public-Private Cooperation," which "engages the foremost political, business and other leaders of society to shape global, regional and industry agendas." Its flagship is its Annual Meeting in Davos-Klosters, Switzerland, which regularly amasses about 3,000 participants in the Alps. It attracts the leadership of global corporations, governmental and non-governmental organizations, the media, as well as other public figures from arts, culture, and sports. Attending Davos is very costly for companies. In 2014, for example, the estimated costs were US\$40,000 per delegate (Armstrong and Kottasova, 2014). These costs may be considered relatively small if WEF attendance generates a measurable value added for companies. For example, attending Davos might help strengthen business networks which companies could benefit from in the short and long term if they lead to business deals. The Annual Meeting might also be used as valuable opportunity to garner political support from country leaders and other government representatives, or to create goodwill among civil society representatives. In the words of a correspondent at Davos, "the value of Davos to the folks who pay these fees has very little to do with the 'themes' of the conference ('sustainability,' and so forth). [...] Davos is now primarily a huge, high-level business conference, in which senior executives from the world's largest companies take advantage of their physical proximity to meet in person with partners and clients and would-be clients—meetings that can end up being vastly more valuable than the price of admission" (Blodget, 2011).

Yet, there are reasons to doubt that attending the summit actually benefits the companies in a measurable way. Instead, Davos attendance might be a rather wasteful

¹According to the mission statement, "[t]he Forum strives in all its efforts to demonstrate entrepreneurship in the global public interest while upholding the highest standards of governance." See https://www.weforum.org/about/world-economic-forum for the full mission statement (accessed 21 September 2019).

activity from the companies' perspective and akin to a "vacation." Davos might generate private benefits to the attendees themselves if they, for example, like mingling with celebrities, enjoy skiing with like-minded people, or use it as a job-market opportunity to promote their career prospects. Rather than generating profit for the companies, sending employees to Davos could be a waste of resources and mostly a distraction.

In order to study whether it pays off for companies to attend Davos, we construct a novel database on WEF attendees over the 2009–2018 period and match it with firmlevel data on stock market performance and credit ratings. If it pays off to attend Davos and if the stock market is efficient, companies who send delegates to the WEF should show a better stock market performance than those that are not represented. Likewise, one would expect that companies that are represented at the WEF are considered as being more creditworthy than their non-participating counterparts. We start by running regressions with firm-, country-year- and sector-year-fixed effects to isolate the effect of Dayos attendance. This allows us to exploit variation in firm performance within firms over time for years in which the company sends delegates to Davos and those where it does not, controlled for country- and sector-specific characteristics over time. To address remaining endogeneity concerns, we will also use a synthetic control method in a future version of this paper to test whether companies present at Davos perform better than when compared to a synthetic twin company. Our donor pool of counterfactual companies consists of MSCI-ACWI corporations that are not part of the Davos meetings. Our findings shed light on whether the most famous summit of global leaders creates value to businesses or just wastes (tax) money.

This paper is the first to study whether companies draw measurable economic benefits from attending Davos. As such, our paper is related to the literature on the economic benefits of international organizations (e.g., Rose, 2004, 2005, Nitsch, 2007a, Büthe and Milner, 2008, Egger and Larch, 2011, Dreher et al., 2015). Within this literature, our paper is closely related to the scholarly work that uses stock market performance and credit ratings as outcome variable (Dreher and Voigt, 2011, Moser and Rose, 2014, Davies and Studnicka, 2018, Gehring and Lang, 2018). In contrast to most contributions in this literature that have so far been heavily focused on cross-country panel data, our paper studies the economic benefits of an international body at the firm level. We also contribute to the burgeoning economic literature on corporate social responsibility (see, for an overview Kitzmueller and Shimshack, 2012).

We proceed as follows. Section 2 provides an overview on the WEF Annual Meeting

²For example, Davos participant Henry Blodget describes the Davos summit as "[t]he [o]f Schmoozing" (https://www.businessinsider.com/davos-parties-2015-1? Super Bowlr=DE&IR=T) and his colleague Taylor Nicole Rogers notes that "[t]he (https://www.businessinsider.de/international/ wild you'd imagine" what-davos-is-really-like-long-lines-high-security-badges-2020-1/?r=US&IR=T, accessed 13 February 2020).

in Davos and introduces a database on Davos attendance. In Section 3, we present our empirical strategy and data required for our econometric analyses. Section 4 discusses our findings from fixed-effects regressions and – in a future version of this paper – the synthetic control method. We conclude the paper in Section 5.

2 The Annual Meeting of the World Economic Forum

2.1 Background

The history of the WEF dates back to 1971, when it was founded as European Management Forum. Back then, its main purpose was to provide a forum to discuss how European companies could clear the backlog with respect to their management practices in comparison to the United States. It is has since been developed into a forum to discuss global challenges. To provide examples, the 2019 Annual Meeting was held under the theme "Globalization 4.0: Shaping a Global Architecture in the Age of the Fourth Industrial Revolution," while the 2020 edition was labeled "Stakeholders for a Cohesive and Sustainable World." The Forum describes itself as being rooted in stakeholder theory. Corporations, and civil society actors more broadly, are invited to fill the void left by governments and international governmental organizations in global governance. As the WEF founder and Executive Chairman Klaus Schwab puts it, the world lacks "authentic and effective global leadership" and, as a result, "the influence of corporations on communities, on the lives of citizens, and on the environment has sharply increased" (Schwab, 2008, p.108). By participating in the Davos Annual Meetings, attendees supposedly contribute to a global public good. The WEF itself describes its work as "efforts to demonstrate entrepreneurship in the global public interest."

The lion's share of the participants come from the private sector.³ Beyond the contribution to a global public good, rational companies are likely to seek private benefits from attending as well. Since a four-digit number of other business leaders are present, the Davos summit offers possibilities to make business deals with companies from every continent. We thus hypothesize that companies perform better if they are represented at Davos, all else being equal.

Moreover, since the Davos summit attracts an impressive number of political leaders, it provides a unique opportunity to lobby according to business interests. US President Donald Trump's visit at the 2020 WEF offers a case in point. Among others, he met with 15 European corporate leaders. In the media, companies that were represented at this meeting were highlighted in media reports. For example, the pharmaceutical

³See WEF website at https://www.weforum.org/agenda/2019/01/everything-you-need-to-know-about-davos-2019/, accessed 19 September 2019.

news website FiercePharma highlighted those companies in the pharmaceutical sector that got invited by the US President in his apparent attempt to "try and gin up more U.S. investment" and titled that "Novartis, Bayer CEOs get time with Trump as he meets with EU business leaders during Davos trip." Previous research suggests that meetings with foreign leaders can promote economic exchange. Estimating export flows from France, Germany and the United States over the 1948–2003 period, Nitsch (2007b) shows that one state visit is associated with an eight-to-ten percent increase in exports. Summarizing the findings of 32 prior contributions in a meta analysis, Moons and van Bergeijk (2017) speak of an overall significantly positive effect of economic diplomacy on trade and investment. It thus appears plausible that get-togethers with political leaders at Davos promote business opportunities in a similar manner. We thus hypothesize that the positive effect of Davos attendance on company performance is more pronounced in years in which more country leaders are present, all else being equal.

At the same time, there are reasons to doubt that attending the Davos summit actually provides private benefits to the attending companies in a measurable way. Instead, attending Davos might be a rather wasteful venture and more akin to sending their delegates on "vacation." This has to be considered against the background of the high fees that companies have to pay. The WEF levies annual membership and partnership fees between CHF60,000 and CHF600,000 per company depending on their respective membership type. In addition, companies need to pay a fee for each participant, which was US\$40,000 in 2014 (Armstrong and Kottasova, 2014). Any private benefit thus needs to be traded off against these substantial costs.

Davos might only generate private benefits to the attendees themselves if they, for example, like mingling with celebrities, enjoy skiing with like-minded people, or use it as a job-market opportunity to promote their career prospects. A better positioning of its corporate leadership on the job market might or might not align with a company's interests.

The Annual Meeting—and the anti-globalization protests that it attracts—also comes with huge costs for the Swiss taxpayers⁶. Moreover, it is said to negatively influence the quality of live of inhabitants and tourists in the Davos area. Survey evidence in Erfurt and Johnsen (2003) shows that interviewees develop a more unpleasant view of the tourist destination Davos when they are exposed to the WEF.

⁴See https://www.fiercepharma.com/pharma/during-davos-trip-trump-takes-meeting-novartis-bayer-ceo (accessed 13 February 2020).

⁵Participants from the public sector and civil society organization typically do not pay fees. Travel grants are available for some participants such as academics. See WEF website at https://www.weforum.org/agenda/2017/01/who-pays-for-davos/, accessed 19 September 2019.

⁶According to the public Swiss Radio and Television, the Swiss government spent CHF45 million in public security expenses for the 2020 summit (https://www.srf.ch/news/schweiz/sicherheitskosten-am-wef-polizeidirektoren-rechtfertigen-politischen-preis, accessed on 15 February 2020).

2.2 Measuring Davos Attendance

We assemble the list of official attendees of the annual summit in Davos from several sources. For the years 2009 to 2012 and 2014 to 2016, we use official attendee lists that are available online. We append our data for the remaining years with reports from the business news organization Quartz for the years 2013, 2017, and 2018.⁷ The data includes the attendee's name, organization, current position in the sending organization, as well as the organization's country of registration.

The resulting data set required substantial cleaning. The organization name was not consistent across participants and years. For example, companies merge and split and the delegates report only a division or subsidiary of a larger parent company. We cleaned this variable to be able to track an organization's participation over time. This included the re-coding of nearly 900 organizations to its respective parent company. A prominent example in the data set is Google. We reallocated Google attendees to its current parent organization, Alphabet. Similarly, government institutions were registered in an inconsistent way. This is why we grouped all attendees from governmental institutions to their respective national or sub-national government. Third, we excluded delegates sent by the WEF itself (e.g., staff members) and delegates who lack an affiliation, such as self-employed individuals. Our final database includes 11,007 individuals from 4,910 individual organizations. For example, prominent participants in the 2018 summit, the last summit covered in our dataset, include US President Donald Trump and the CEOs of IBM, Virginia Rometty, and IKEA, Jesper Brodin, among many others.

The size of the Davos summit shows an upward trend. The total number of yearly attendees increased from 2,282 in 2009 to 2,957 in 2018. Overall, attendees from 155 countries are represented. As highlighted in Figure 1, most participants come from the United States (7,261), followed by the United Kingdom (2,847), and WEF home country Switzerland (2,073). Also, the number of participating organizations increased from 1,469 to 1,667. On average, 382 new organizations, in the sense that they had not attended an earlier summit in the observed period, attended Davos each year. In 2018 alone, 376 organizations joined, including the retail giant Walmart and the IT company NEC. The company that sent most delegates in the observed period was Thomson Reuters (50), followed by Bloomberg (45), and PepsiCo (36). The national government that sent the most delegates was the United States (167), followed by the United Arab Emirates (104), and Switzerland (71). The Annual Meeting is still dominated by high-income countries. While the number of attendees from low- and middle-income countries has increased from 454 in 2009 to 712 in 2018, the share of attendees from this country group is stagnating (see Figure B3 in the Appendix).

Next, we coded whether the organization is is part of the MSCI-All-Country-World-

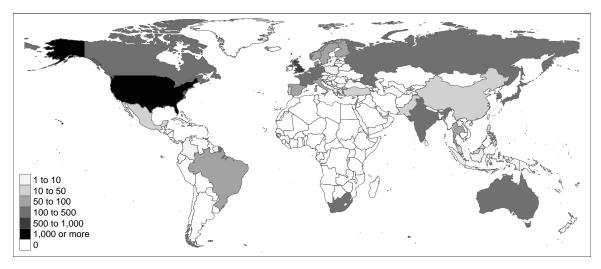
⁷We thank David Yanofsky for kindly sharing his data with us.

1 to 5 5 to 10 10 to 20 20 to 50 50 to 100 100 to 250 250 to 500 500 to 1,000 1,000 to 2,000 2,000 or more

Figure 1 – Total Number of Delegates by Country, 2009–2018

Source: Own visualization.

Figure 2 – Number of Delegates by Country Sent from ACWI-listed Corporations, 2009–2018



Source: Own visualization.

Index (MSCI-ACWI). This market cap-weighted stock market index covers 2,746 stocks from companies throughout the world. The MSCI-ACWI extends the more well known MSCI-World by publicly listed firms from 26 emerging economies (MSCI, 2019). By MSCI's own account, the MSCI-ACWI covers around 85 percent of the free float-adjusted market capitalization in each of the 47 national markets (MSCI, 2019). As can be seen from Figure 2, most corporate participants at Davos (from MSCI-ACWI-listed companies)

⁸The MSCI-ACWI includes the following countries and territories: Australia, Austria, Belgium, Brazil, Canada, Chile, China, Colombia, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Hong Kong (China), Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, South Korea, Malaysia, Mexico, Netherlands, New Zealand, Norway, Pakistan, Peru, Philippines, Poland, Portugal, Qatar, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan (China), Thailand, the United Kingdom, the United States, the United Arab Emirates, and Turkey.

come from the United States (1,985), followed by the United Kingdom (578), and India (475).

Finally, to get an impression of the sectoral composition of these corporate delegates, we group the companies into ten broad sectors as defined by Thomson Reuters (Reuters, 2012). As displayed in Figure 3, the largest share of attendees (24.4%) comes from the sector Financials, followed by Industrials (12.9%) and Technology (11.5%).

Sector 100% **Basic Materials** Consumer Cyclicals 75% Consumer Non-Cyclicals Energy Companies Financials 50% Healthcare Industrials 25% Technology Telecommunication Services Utilities 0% 2009 2011 2013 2015 2017

Figure 3 – Composition of Corporate Delegates by Sector over Time, 2009–2018

Source: Own visualization.

3 Empirical Strategy

3.1 Dependent Variables

Our goal is to investigate whether sending a delegate to the Davos summit affects firm performance. To do so, we investigate the effect of Davos attendance on stock market performance and corporate ratings.

3.1.1 Stock Market Performance

We follow previous research and use the MSCI-ACWI to map global stock market performance (e.g., Moser and Rose, 2014). We collected data via Datastream for over

99% of all the 2,746 listed constituents.⁹ In very few cases, the MSCI-ACWI lists more than one stock from a particular company. In these cases, we choose the share with regular voting rights.¹⁰ In total, the stocks of relevance are traded at 54 national stock markets from 51 countries and territories. For simplicity, we take the country in which the stock is traded as the company's country of origin. For 177 firms, however, these two characteristics differ. We use the country as listed in Datastream and only deviate from this in some specific cases (e.g., countries defined as tax havens) where we use the country of the operational headquarter instead. We identify the operational headquarter by Internet research.

Our measure of stock market performance is the end-of-the-year excess return for each of the 2,727 identified constituents.¹¹ We download this variable in their respective local currencies for the years 2000 to 2018. We then convert all values into US dollar using daily closing spot exchange rates, which we also collect via Datastream, Thomson Reuters, GTIS, and MSCI. To control for the overall market movement, we regress the firms' end-of-the year returns on the end-of-the-year market return of the MSCI-ACWI and the respective intercept in order to estimate the firm specific beta following MacKinlay (1997). This way, we control for the co-movement of a firm's return and the return of the MSCI-ACWI as well as any possible deviation of the firm compared to the index (Moser and Rose, 2014). We use the annual market return on the MSCI-ACWI from 2008 to 2018.

As a next step, we match the list of companies listed in the MSCI-ACWI with our data set of Davos attendees and identify the 516 MSCI-ACWI companies that attended the WEF Annual Meeting at least once in the observed period. This corresponds to 18.7% of all companies listed in the MSCI-ACWI. These 516 companies account for 42.2% of the index's capitalization. This shows that many globally active corporations do not attend the summit, which will allow us to build a meaningful counterfactual. Apple, for example, does not attend any of the summits in our sample and accounts for more than 2% of the total capitalization of the MSCI-ACWI index.

3.1.2 Corporate Credit Ratings

We also study the effect of Davos attendance on the credit ratings of companies. By doing so, we intend to learn whether Davos attendance affects a more long-term indicator of firm performance. Specifically, we use the long-term foreign-currency issuer credit ratings at the end of the respective year of the three largest credit rating agencies: Fitch, Moody's, and Standard & Poor's. We retrieve the data via Datastream and convert the

 $^{^9{}m The\ list\ of\ constituents\ was\ accessed\ at\ the\ MSCI\ website\ on\ 23\ April\ 2019\ (https://www.msci.com/constituents).}$

 $^{^{10}\}rm{Examples}$ in our dataset are: "Alphabet A" and "Alphabet C," or "Volkswagen Stamm" and "Volkswagen Vorzug," where we exclude "Alphabet C" and "Volkswagen Vorzug."

¹¹We define the end of the year as the last trading day of the particular stock market in a given year.

alphanumeric rating levels into a uniform numerical scale, where 1 is the lowest rating category (rating "C" or lower) and 21 is the possible best possible outcome ("AAA" for Fitch and Standard & Poor's and "Aaa" for Moody's). This approach is standard in the literature on credit ratings (Fuchs and Gehring, 2017). If the credit rating differs across agencies, we take the average value among those agencies that issues a rating for the respective company.

The resulting estimation sample contains an unbalanced panel of credit ratings for 1,543 firms, of which 399 companies have at least once been represented at the WEF.

3.2 Fixed-effects Regressions

To estimate the effect of attending Davos on firm performance, we estimate the following equation with least squares:

$$R_{ijst} = \beta Davos_{ijst} + \phi_{ijs} + \sigma_{st} + \xi_{jt} + \epsilon_{ijst},$$

where R_{ijst} is the end-of-the-year excess return or corporate rating in year t of company i, which is located in country j and belongs to sector s; $Davos_{ijst}$ is a binary variable that takes a value of one if company i has at least one participant at the Davos summit in year t; ϕ_{ijs} are firm-fixed effects; and σ_{st} and ξ_{jt} denote sector-year- and country-year-fixed effects, respectively. The inclusion of firm-fixed effects allows us to control for all time-invariant firm-specific characteristics such as the sector, location, and corporate history. By adding sector-year-fixed effects, we control for time-varying factors that affect an entire sector such as technological progress. The inclusion of country-year-fixed effects enables us to further control for time-specific factors that affect an entire country such as a change of government policies or an economic downturn. Standard errors are clustered at the firm level.

It is not clear whether WEF membership or actual attendance at the Davos summit is the more appropriate representation of our variable of interest. However, the WEF does not provide a comprehensive list of all members.¹³ Since every for-profit company that attends the Davos summit must be a WEF member, we believe that attendance is also a good proxy for membership. Moreover, there are reasons to expect that the number of attendees matters in addition to participation. Companies pay for premium membership to be able to send additional delegates, supposedly to have more workforce to make business deals and lobby politicians. We repeat the regression from above but replace the attendance dummy with the actual number of attendees sent by a company

 $^{^{12}\}mathrm{We}$ group the companies in ten sectors: Basic Materials, Consumer Cyclicals, Consumer Non-Cyclicals, Energy, Financials, Healthcare, Industrials, Technology, Telecommunication Services, and Utilities.

 $^{^{13}}$ More than 1,000 companies are WEF members. See https://www.weforum.org/about/our-members-and-partners.

in a given year.

Table 1 provides descriptive statistics on all variables employed in our paper. We show separate statistics for our estimation sample for the return (panel A) and the rating (panel B) regressions. Focusing our interpretation on the larger sample presented in panel A, we observe that 10% of all company-years participated at the Davos summit. The maximum number of attendees sent to Davos was 15. Each year 1.1% of all companies are "newcomers" at Davos in the sense that they had not been represented at a previous summit in our sample.

Table 1 – Summary Statistics

	count	mean	sd	min	max
Panel A: Returns					
Returns	25264	0.000	0.474	-1.314	13.794
Company attendance	25264	0.100	0.301	0.000	1.000
No. of delegates	25264	0.236	0.908	0.000	15.000
Attendance size	2539	2.345	1.807	1.000	15.000
Lagged Outlook	12769	1.929	0.473	1.000	3.000
Lagged Rating	10791	13.646	2.676	1.000	21.000
Lagged Return	22538	0.001	0.494	-1.314	13.794
G20 Gov't officials	25264	27.002	5.327	19.000	37.000
G20 Leaders	25264	5.814	2.016	3.000	9.000
G20 Leaders/GDP	25264	0.253	0.151	0.061	0.587
MSCI World	25264	0.621	0.485	0.000	1.000
Newcomer	22966	0.011	0.104	0.000	1.000
Panel B: Ratings					
Credit Rating	11535	13.609	2.650	1.000	21.000
Company attendance	11535	0.156	0.363	0.000	1.000
No. of delegates	11535	0.382	1.152	0.000	15.000
Attendance size	1805	2.443	1.858	1.000	15.000
Lagged Outlook	10892	1.915	0.481	1.000	3.000
Lagged Rating	11051	13.648	2.699	1.000	21.000
Lagged Return	10071	-0.037	0.380	-1.262	5.454
G20 Gov't officials	11535	27.232	5.351	19.000	37.000
G20 Leaders	11535	5.836	2.045	3.000	9.000
G20 Leaders/GDP	11535	0.255	0.155	0.061	0.587
MSCI World	11535	0.773	0.419	0.000	1.000
Newcomer	10576	0.017	0.128	0.000	1.000

Note: Descriptive statistics based on sample used in Table 2, column 1.

3.3 Synthetic Control Method

In a later version of this paper, we will apply a synthetic control method, which is a popular method to analyze causal dependencies in observational data. Previous research shows that this method yields a consistent estimator for non-randomized treatment effects and this even holds under multiple treatments and points in time of treatment (Abadie and Gardeazabal, 2003, Abadie et al., 2010, Acemoglu et al., 2016, Xu, 2017).

In the synthetic control method, the treatment effect is the difference between the treated observation and its synthetic control after the point of treatment (Acemoglu et al., 2016). For each observation in the treatment group we will create a counterfactual by drawing a weighted average from all observations in the control group so that the treatment and control are as similar as possible to results prior to the treatment. Our donor pool of counterfactual companies will consist of MSCI-ACWI corporations from the same sector that do not participate at the annual meeting. As a pre-treatment period, we will use the ten years prior to the first time a company sends a delegate to the Davos summit to avoid unobserved pre-treatment effects. We will then test the validity of our estimated treatment effect in a placebo test, where we randomly assign treatment to a corporation from the donor pool. To avoid a cumbersome repetition of the methodology for each treated corporation, we will apply the generalized synthetic control method proposed by (Xu, 2017).

4 Results

Table 2 shows our baseline results. Column 1 includes firm- and year-fixed effects only; column 2 replaces year-fixed effects by the stricter country-year-fixed effects, column 3 replaces year-fixed effects by the stricter sector-year-fixed effects, and column 4 shows results with both country-year-fixed effects and sector-year-fixed effects. Panel A presents the results for excess returns. Rather than showing evidence for beneficial effects on firm performance, the coefficient on company attendance at Davos is even negative in all four columns. However, the coefficients do not reach statistical significance at conventional levels. This is evidence against the hypothesis that companies benefit from Davos attendance in terms of stock market performance.

Being a Davos participant could be perceived as a stronger signal in emerging markets compared to companies in advanced economies. To test this, the regression in column 5 restricts the sample to companies based in one of the 26 emerging economies. The sample is significantly smaller and covers 1,050 firms only. However, this company group is particularly dynamic and we should observe more "newcomers" at the WEF here. However, in contrast to our expectations, the coefficient on our variable of interest even becomes larger in absolute size and becomes statistically significant at the tenpercent level. We conclude that firms participating in Davos do not even show a better performance for this most-likely group of countries.

In panel B, we replicate our analysis with credit ratings as our dependent variable. The coefficients on Davos attendance are economically and statistically insignificant. Together with our previous finding for returns, we tentatively conclude that it does not pay off for companies to attend Davos.

So far, each company entered our regression with the same weight. Next, we test

Table 2 – Baseline Regression Results, OLS, 2009–2018

	(1)	(2)	(3)	(4)	(5) Emerging Markets
Panel A: Returns					
Company attendance	-0.025 (0.018)	-0.025 (0.017)	-0.019 (0.017)	-0.018 (0.016)	-0.055* (0.031)
Observations R^2 Firms	25264 0.026 2726	25264 0.153 2726	$25264 \\ 0.054 \\ 2726$	25264 0.178 2726	9570 0.102 1050
Panel B: Ratings					
Company attendance	0.015 (0.060)	0.018 (0.060)	0.017 (0.058)	0.021 (0.058)	-0.106 (0.102)
Observations R^2 Firms	11535 0.003 1395	$11535 \\ 0.159 \\ 1395$	11535 0.036 1395	11535 0.186 1395	2615 0.013 348
Country-Year FE Sector-Year FE		YES	YES	YES YES	

Notes: The dependent variable in panel A is annual excess returns of shares included in the MSCI-ACWI which are calculated as the relative change of the end-of-the-year closing rate measured in US \$. The dependent variable in Panel B is long-term issuer ratings. All specifications include a constant, firm and year fixed effects. Clustered standard errors in parentheses. *** p<0.01, *** p<0.05, * p<0.1.

whether our results hold, when we run weighted regressions. We weight companies by their respective market value from the previous year, normalized to one, over the cumulative market value of the MSCI-ACWI also from the previous year. As can be seen in Table 3, we again observe no significant coefficient in any of the five regressions in both panels. This increases our confidence that there is indeed an average null effect of Davos attendance on firm performance.

In Table 4, we replicate our previous regressions but replace the simple Davos dummy with the number of company attendees at Davos in a given year. It might be that firm performance is only affected by a larger number of delegates. By replacing our binary variable with a count variable, we can account for this. However, as our regression results show, we again do not find evidence of a positive Davos effect on firm performance in any of the five specifications and in both panels.

Next, we control for a special effect of the first year of being at Davos. It might be that new participants attract particular attention, which improves firm performance in the first year. The regression specifications in Table 5 include an additional binary variable that takes a value of one if a company is a first-time participant in a given year. As the results show, there is also no Davos effect neither on excess returns nor credit

Table 3 – Weighted Regression Results, OLS, 2009–2018

	(1)	(2)	(3)	(4)	(5) Emerging Markets
Panel A: Returns					
Company attendance	-0.025 (0.019)	-0.025 (0.018)	-0.019 (0.018)	-0.018 (0.017)	-0.055* (0.033)
Observations R^2 Firms	25264 0.147 2726	25264 0.258 2726	25264 0.172 2726	25264 0.280 2726	9570 0.207 1050
Panel B: Ratings					
Company attendance	$0.015 \\ (0.064)$	0.018 (0.064)	0.017 (0.062)	0.021 (0.062)	-0.106 (0.110)
Observations R^2 Firms	$11535 \\ 0.922 \\ 1395$	$11535 \\ 0.935 \\ 1395$	$11535 \\ 0.925 \\ 1395$	11535 0.937 1395	$2615 \\ 0.915 \\ 348$
Country-Year FE Sector-Year FE		YES	YES	YES YES	

Notes: The dependent variable in panel A is annual excess returns of shares included in the MSCI-ACWI which are calculated as the relative change of the end-of-the-year closing rate measured in US \$. The dependent variable in Panel B is long-term issuer ratings. All specifications include a constant, firm and year fixed effects. Weights are lagged end-of-year market values of all MSCI-ACWI constituents normalised to one. Clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

ratings for first-time participants.

Our non-finding could be driven by a lack of control for selection into the group of WEF companies. While we cannot directly for selection, it is unlikely that our null finding is driven by selection bias, as more rather than less performing firms should be more likely to become WEF members. What is more, we run a robustness test that is not subject to a selection effect. Specifically, we only analyze the potential effect of the number of delegates a company has at Davos on firm performance within the group of participants. If Davos attendance improves firm performance, we would also expect that stronger participation translates into better performance and this should be visible in this reduced sample that cannot be subject to the aforementioned sample selection bias. As presented in detail in Table A4 in the Appendix, there is also no evidence that Davos attendance pays off for companies within the group of WEF companies.

Finally, it could be that the effect is only visible in those years in which a large number of high-ranked politicians attend the Annual Meeting. This is why we also identify how many important government officials from the G20 member states attend the summit in a given year. As important government officials, we code the head of state, the head of

Table 4 – Delegate Count Regression Results, OLS, 2009–2018

	(1)	(2)	(3)	(4)	(5) Emerging Markets
Panel A: Returns					
No. of delegates	-0.002 (0.011)	-0.004 (0.010)	-0.001 (0.010)	-0.002 (0.010)	-0.022 (0.018)
Observations R^2 Firms	25264 0.026 2726	25264 0.153 2726	25264 0.054 2726	25264 0.178 2726	9570 0.102 1050
Panel B: Ratings					
No. of delegates	0.004 (0.029)	0.002 (0.028)	0.006 (0.029)	$0.006 \\ (0.028)$	-0.050 (0.057)
Observations R^2 Firms	11535 0.003 1395	$11535 \\ 0.159 \\ 1395$	11535 0.036 1395	$ \begin{array}{c} 11535 \\ 0.186 \\ 1395 \end{array} $	$2615 \\ 0.013 \\ 348$
Country-Year FE Sector-Year FE		YES	YES	YES YES	

Notes: The dependent variable in panel A is annual excess returns of shares included in the MSCI-ACWI which are calculated as the relative change of the end-of-the-year closing rate measured in US \$. The dependent variable in Panel B is long-term issuer ratings. All specifications include a constant, firm and year fixed effects. Clustered standard errors in parentheses. **** p<0.01, *** p<0.05, * p<0.1.

government, the minister of economic affairs, the minister of finance, and the minister of foreign affairs. The number of high-level politicians shows considerable variation over time and ranges between 20 (2011) and 38 (2016) (see Figures B1 and B2 in the Appendix). To test this, we interact our Davos dummy with the number of important G20 government officials present at Davos. The upper panel of Figure B4 shows the marginal effects of Davos attendance for all values of G20 government official in our sample. Even in important years there does not appear to be a statistically significant effect on firm performance. In the lower panel of Figure B4, we replicate the results when we focus on the G20 heads of state or head of government being represented rather than the total number of all important G20 government members. Again, Davos attendance does not positively affect firm performance. For very low values of G20 heads we even observe significant negative effects. Summing up, we could not detect a measurable robust effect of Davos attendance on firm performance.

Table 5 – Regression Results with Newcomers, OLS, 2009–2018

	(1)	(2)	(3)	(4)	(5) Emerging Markets
Panel A: Returns					
Company attendance	-0.020 (0.014)	-0.016 (0.013)	-0.017 (0.014)	-0.012 (0.013)	-0.029 (0.031)
Newcomer	0.012 (0.024)	0.016 (0.023)	0.015 (0.023)	0.017 (0.022)	-0.006 (0.052)
Observations R^2 Firms	$22966 \\ 0.025 \\ 2726$	22966 0.123 2726	22966 0.053 2726	$22966 \\ 0.145 \\ 2726$	8733 0.052 1050
Panel B: Ratings					
Company attendance	-0.013 (0.067)	-0.009 (0.067)	-0.016 (0.065)	-0.009 (0.065)	-0.113 (0.112)
Newcomer	$0.076 \\ (0.068)$	0.038 (0.067)	0.105 (0.068)	$0.066 \\ (0.066)$	0.096 (0.099)
Observations R^2 Firms	10576 0.003 1388	10576 0.145 1388	10576 0.033 1388	$ \begin{array}{c} 10576 \\ 0.171 \\ 1388 \end{array} $	$2428 \\ 0.010 \\ 346$
Country-Year FE Sector-Year FE		YES	YES	YES YES	

Notes: The dependent variable in panel A is annual excess returns of shares included in the MSCI-ACWI which are calculated as the relative change of the end-of-the-year closing rate measured in US \$. The dependent variable in Panel B is long-term issuer ratings. All specifications include a constant, firm and year fixed effects. Clustered standard errors in parentheses. *** p<0.01, *** p<0.05, * p<0.1.

5 Concluding Remarks

Corporate leaders have high opportunity costs of attending a summit. We investigate the corporate benefits from attending the Annual Summit of the World Economic Forum in Davos, Switzerland, which attracts hundreds of business leaders. To study empirically whether WEF participation pays off, we introduced a novel database on WEF attendees over the 2009 to 2018 period and matched it with firm-level data on stock market performance as well as credit ratings. We then used fixed-effects estimations to test whether the companies present at Davos perform better and whether the number of attendees matters once a company participates. Our preliminary findings do not provide evidence that the most famous summit of global leaders creates a direct value to businesses.

It is unlikely that this null finding is driven by reverse causality, as more rather than less performing firms should be more likely to become WEF members (if at all). Reversing

the causal link and estimating a regression specification that explains entry into the WEF, it also does not appear that our results are subject to reverse-causality bias (see Figure 5 for details). In a future version of this paper, we will also use a synthetic control method to address remaining endogeneity concerns. Specifically, we will test whether companies present at Davos perform better than when compared to a synthetic twin company.

Does this mean that Davos is just a boondoggle? Our paper investigates whether Davos attendance is beneficial to the companies themselves. Taking the perspective of profit-maximizing companies, our tentative answer is yes. However, we also acknowledge that our study is only a first step towards a better understanding of the effects of one of the world's most prestigious summits. Future research should study the effects of Davos attendance from the perspective of delegates and global citizens. First, it is of interest whether employees benefit from Davos attendance, e.g., in terms of career prospects, salary, location in business networks, and job satisfaction. Second, scholars could investigate whether the agenda of the Davos summit shapes public discourses. Although our study reveals null effects from a firm perspective, companies might contribute to a global public good that significantly shapes global agendas. For example, survey data may enable researchers to study whether media coverage around the Davos summit shapes public opinion in countries with strong representation. Such an analysis would help evaluate whether the Davos summit indeed contributes to a global public good.

¹⁴Based on interviews with Davos attendees, Giesler and Veresiu (2014) study the effects of the WEF's problem-solving initiatives on consumers. They conclude that the WEF is not "improving the state of the world" but rather reinforcing the global problems by shifting the burden on responsible consumers.

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Appendix

A Additional tables

 ${\bf Table~A1}-{\bf Conversion~of~credit~ratings~into~numerical~values~(21-point~scale)}$

Fitch	${\bf Moody's}$	S&P	Numerical scale
AAA	Aaa	AAA	21
AA+	Aa1	AA+	20
AA	Aa2	AA	19
AA-	Aa3	AA-	18
A+	A1	A+	17
A	A2	A	16
A-	A3	A-	15
BBB+	Baa1	BBB+	14
BBB	Baa2	BBB	13
BBB-	Baa3	BBB-	12
BB+	Ba1	BB+	11
BB	$\mathrm{Ba2}$	BB	10
BB-	Ba3	BB-	9
$\mathrm{B}+$	B1	B+	8
В	B2	В	7
B-	В3	В-	6
CCC+	Caa1	CCC+	5
CCC	Caa2	CCC	4
CCC-	Caa3	CCC-	3
$^{\rm CC}$	Ca	CC	2
\mathbf{C}	\mathbf{C}	С	1
DDD		SD	1
${ m DD}$			1
D		D	1
RD			1

Source: Own adaption, based on Fuchs and Gehring (2017).

Table A2 – Size Effect of Attendees Groups, OLS, 2009–2018

	(1)	(2)	(3)	(4)	(5) Emerging Markets
Panel A: Returns					
Attendance size	$0.005 \\ (0.016)$	0.005 (0.013)	-0.003 (0.015)	-0.000 (0.014)	$0.006 \\ (0.030)$
Observations R^2 Firms	2539 0.018 488	2539 0.281 488	2539 0.116 488	2539 0.337 488	594 0.202 126
Panel B: Ratings					
Attendance size	0.029 (0.040)	0.014 (0.040)	0.048 (0.041)	0.039 (0.041)	-0.072 (0.097)
Observations R^2 Firms	1805 0.040 350	1805 0.300 350	1805 0.189 350	$1805 \\ 0.433 \\ 350$	$ \begin{array}{r} 314 \\ 0.095 \\ 69 \end{array} $
Country-Year FE Sector-Year FE		YES	YES	YES YES	

Notes: The dependent variable in panel A is annual excess returns of shares included in the MSCI-ACWI which are calculated as the relative change of the end-of-the-year closing rate measured in US \$. The dependent variable in Panel B is long-term issuer ratings. All specifications include a constant, firm and year fixed effects. Clustered standard errors in parentheses. **** p<0.01, *** p<0.05, * p<0.1.

Table A3 – Explaining Newcomers

	(1)	(2)	(3)	(4)
Lagged Return	-0.044 (0.044)	-0.098 (0.069)	-0.050 (0.048)	-0.083 (0.075)
Lagged Rating	0.025 (0.031)	0.043 (0.061)	0.047 (0.032)	$0.032 \\ (0.055)$
Lagged Outlook	0.064* (0.034)	0.107** (0.050)	0.048 (0.041)	0.110* (0.060)
Observations R^2 Firms	635 0.387 151	635 0.593 151	635 0.485 151	635 0.701 151
Country-Year FE Sector-Year FE		YES	YES	YES YES

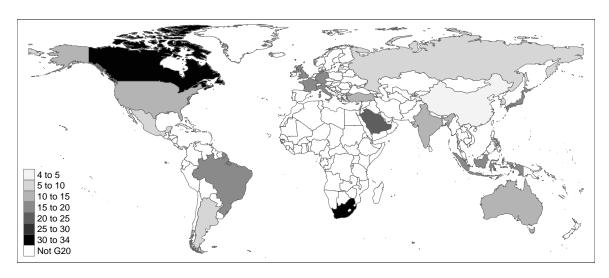
Notes: The dependent variable is whether a firm is a newcomer. All specifications include a constant, firm and year fixed effects. Clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

 ${\bf Table}~{\bf A4}-{\bf Sources~of~WEF~Annual~Meeting~Lists}$

Year	Description	Source
2009	World Economic Forum Annual Meeting List of Participants as of 30 April 2013	Online
2010	World Economic Forum Annual Meeting List of Participants as of 30 April 2013	Online
2011	World Economic Forum Annual Meeting List of Participants as of 30 April 2013	Online
2012	World Economic Forum Annual Meeting List of Participants as of 30 April 2013	Online
2013	World Economic Forum Annual Meeting List of Participants	Quartz.com
2014	World Economic Forum Annual Meeting List of Participants as of 14 January 2014	Online
2015	World Economic Forum Annual Meeting List of Participants as of 20 January 2015	Online
2016	World Economic Forum Annual Meeting List of Participants as of 13 January 2016	Online
2017	World Economic Forum Annual Meeting List of Participants as of 10 January 2017	David Yanofsky
2018	World Economic Forum Annual Meeting List of Participants as of 19 January 2018	David Yanofsky

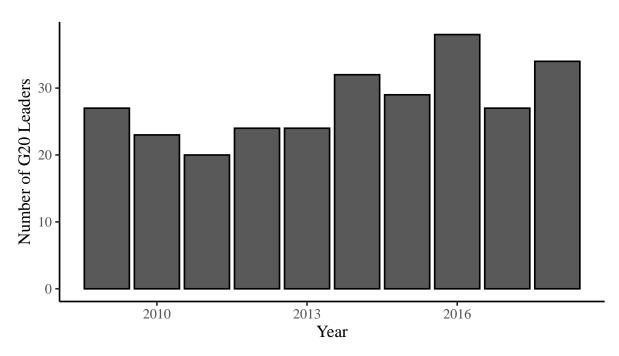
B Additional figures

 $\mathbf{Figure} \ \mathbf{B1} - \mathbf{Total} \ \mathbf{Number} \ \mathbf{of} \ \mathbf{G20} \ \mathbf{Leaders} \ \mathbf{at} \ \mathbf{the} \ \mathbf{WEF} \ \mathbf{Annual} \ \mathbf{Meeting}, \ 2009-2018$



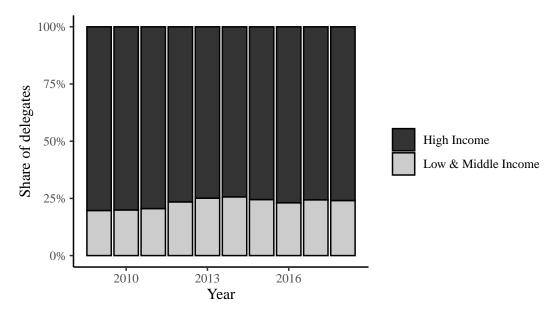
Source: Own visualization.

Figure $\mathbf{B2}$ – Total Number of G20 Leader from 2009 to 2018



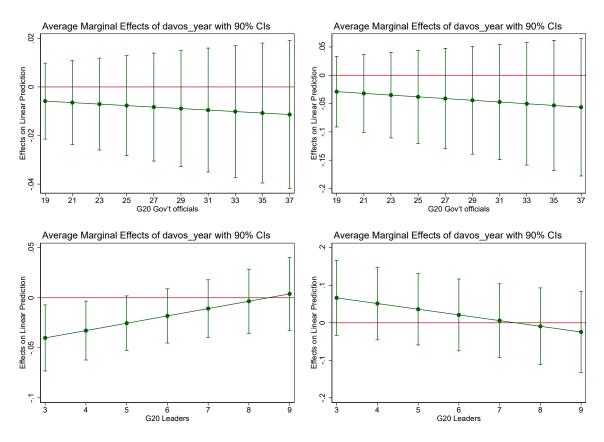
Source: Own visualization.

Figure B3 – Share of Delegates Sent from Low- and Middle-income Countries, 2009–2018



Source: Own visualization.

Figure B4 – Marginal effects of regressions with interaction term, OLS, 2009–2018



Notes: The figure displays marginal effects together with a 90% confidence interval. The dependent variable in the left column is annual excess returns of shares included in the MSCI-ACWI which are calculated as the relative change of the end-of-the-year closing rate measured in US \$. The dependent variable in the right column is long-term issuer ratings. All specifications include country-year- and sector-year-fixed effects.