Article

Assessing Sustainability-Related Systematic Reputational Risk through Voting Results in Corporate Meetings: A Cross-Industry Analysis

Marcos Vizcaíno-González [1],* , **Susana Iglesias-Antelo** [1] **and Noelia Romero-Castro** [2]

1   Department of Business, Universidade da Coruña, 15071 A Coruña, Spain; susana.iglesias.antelo@udc.es
2   Department of Financial Economics and Accounting, Universidade de Santiago de Compostela, 15782 Santiago de Compostela, Spain; noe.romero@usc.es
*   Correspondence: marcos.vizcaino@udc.es; Tel.: +34-881-012-462

check for
updates

Abstract: This research uses Sharpe's single-index model to analyze voting results in corporate meetings, thus assessing whether voting results at the corporate level are influenced by aggregated voting results at the industry level. We use a sample of votes regarding managerial proposals concerning executive election and compensation. The companies involved are included in the five most represented industries in NASDAQ, and the analysis focuses on the 2003–2017 period. The votes were disclosed by institutional investors who are especially concerned with corporate governance and sustainability issues, so we consider that they reflect sustainability-driven decisions. Based on previous research linking voting results to reputational consequences, we assess the systematic component of sustainability-related reputational risk within these five industries, finding significant differences among them. Thus, although the systematic component of sustainability-related reputational risk appears to be strong for financial and technological companies, it is weak for healthcare, consumer services, and capital goods companies. Implications for researchers and practitioners are reported.

Keywords: single-index model; sustainability-related risk; systematic risk; reputational risk

1. Introduction

Reputation and its related risks are usually presented as complex and multidimensional concepts in academic literature [1–3]. This is one of the reasons why reputational risk management strategies are still underdeveloped, despite the wide consensus about reputational risk being a major threat for companies and organizations of all types, and this stresses the importance of carefully studying it [4].

Reputational-risk-related investigation adopts a wide set of perspectives. This study adheres to the research line that investigates the connection between reputation and shareholder activism [5]. Particularly, previous studies state that votes disclosed by shareholders in corporate meetings can be considered as a proxy for reputational harm or reputational penalties [6], that is, the negative consequences derived from reputational risk. In this sense, the reported existence of a systematic component in those voting results acquires a special significance [7]. To explore this idea further, this study analyzes the impact of aggregated voting results, observed at the industry level, on individual voting results, observed at the corporate level, using the reputational perspective, and this constitutes an original research contribution. In this sense, Sharpe's single-index model supplies a suitable methodology insofar as it proposes a one-factor model that considers that individual results are correlated through a unique underlying factor, enabling the differentiation of systematic and unsystematic risk [8]. In addition, this study discusses how this intuitive approach has been

successfully applied outside the finance field from a variety of perspectives, given that certain variables fit well with this schema, which considers systematic and unsystematic sources to explain their behavior. In a similar way, we aim to assess the systematic component of sustainability-related reputational risk through the analysis of voting results by means of this single-index model schema.

For that purpose, we build a sample of votes regarding managerial proposals about executive election and executive compensation presented in corporate meetings during the period from 2003 to 2017. Specifically, we focus on NASDAQ companies from the five most represented industries: Finance, technology, healthcare, consumer services, and capital goods. We use votes disclosed by institutional investors that are especially concerned with corporate governance and sustainability issues. We deploy a separate analysis for each one of the five covered industries. This approach is compatible with existent research in the field of reputational risk, which outlines heterogeneous reputational responses across industries [9,10].

It is later discussed how previous studies have proposed the use of the single-index model as a suitable methodological framework for the analysis of voting results. Based on this approach, we make an original contribution, showing how there is a systematic component to voting behavior observed in corporate meetings, when analyzed at the sector level. Additionally, taking advantage of previous studies that link voting results to reputational issues, we argue how our approach explains the systematic component of reputational risk, captured through voting behavior. Finally, considering that most studies in the field of reputational risk tend to focus on a single industry (mainly, the banking industry), we also deliver a cross-industry analysis, comparing and finding significant differences in the systematic component of sustainability-related reputational risk among industries.

The rest of the manuscript is structured as follows. The second section provides a theoretical framework for reputational risk and formulates the hypotheses to be tested. The third section establishes the methodological framework, based on the single-index model, its ability to disaggregate risk into systematic and unsystematic risk, and its main applications, which are related to the topic of the current investigation. The fourth section describes the data sample, the chosen indicator for measuring voting results in corporate meetings, and the model to test the hypotheses. The fifth section presents and discusses the main results drawn from the estimations. Finally, the sixth section delivers a set of conclusions and highlights implications for both researchers and practitioners.

2. Theoretical Background

Companies in every sector of activity are experimenting with increased exposure to reputational matters, which consequently leads managers, directors, academics, and researchers to show an increased concern about the related reputational risk. Social media play a crucial role in this increased exposure and, simultaneously, become a key tool for succeeding in designing an effective reputational risk management strategy, since nowadays, social media have become one of the main communication channels between the company and its stakeholders. Taking care of relations with stakeholders becomes a critical issue, and deploying appropriate communication abilities is paramount for satisfactorily meeting stakeholders' needs and demands. Specifically, developing an adequate disclosure and reporting strategy is usually considered a prerequisite [11]. Succeeding in doing so will help in mitigating the negative consequences related to reputational risk [12,13], while any failure in this can result in the company being driven into the difficult position of intensified reputational risk exposure, making this risk even less manageable than it originally was [14].

Given the narrow link between corporate reputational risk exposure and corporate communication strategies, it is interesting how previous research links reputation to shareholder activism [5] or, more precisely, to voting decisions, delivered by shareholders in corporate meetings, regarding managerial proposals, with voting results proposed as indirect measures of reputational pitfalls [6]. In other words, by means of analyzing the evolution of voting results in corporate meetings for a certain company during a given period, we can infer how the exposure to reputational penalties has evolved through time.

Moreover, previous research highlights the possible presence of a systematic component behind voting decisions [7]. Nevertheless, this specific topic remains relatively unexplored, although some empirical findings have been provided on how peer effects arise, when it comes to the analysis of mutual voting, given that the chance that a given fund rejects a managerial proposal reportedly increases, when other funds are likely to reject it [15]. If some significant systematic component is found behind voting decisions, and assuming the reputational dimension of voting results, this will indicate that reputational consequences perform homogeneously to a certain degree. In other words, this will be an indirect indicator of a reputational contagion, and therefore, reputational risk can be considered to hold a significant systematic nature. Considering that focusing on a single industry is a common approach for studies in the area, the industry level seems appropriate for the scope of this research. Thus, we aim to investigate if voting results at the corporate level are mediated by aggregated voting results at the industry level. This leads to the formulation of our first hypothesis:

Hypothesis 1. *Voting results at the industry level affect voting results at the corporate level.*

Additionally, it is worth pointing out how certain environmental conditions are likely to affect reputational responses, since research shows that some industries are more sensitive to reputation-related issues than others [9,10]. Therefore, any analysis of reputational risk should consider the influence of the industry and is advised to deploy separate analyses for separate industries, insofar as reputational risk exposure may differ substantially. This leads to the formulation of our second hypothesis:

Hypothesis 2. *The influence of voting results at the industry level on voting results at the corporate level differs among industries.*

3. Methodological Background

In 1952, Markowitz made a key contribution to finance: He proposed a normative optimization model of investor behavior, based on the return and the risk of securities [16]. However, its complexity when handling many securities led to an important problem of practical implementation in the mid-twentieth century. It was for this reason that Sharpe [8] proposed a return generation model, which implied a huge reduction in the number of required estimates for the optimization model. It is a single-index or one-factor model that assumes security returns are correlated, only because all of them respond to changes in an underlying factor. According to his own notation:

$$R_i = A_i + B_i I + C_i \tag{1}$$

where R_i is the rate of return of security i, A_i and B_i are parameters, C_i is a random variable, with finite variance and a zero expected value, and I is the level of an index (a stock market index, the GNP, some price index, etc.) that is not correlated with C_i. This index is usually considered the market portfolio—or its proxy, a stock market index—and its level, a rate of return. This has given rise to a more specific model, known as the market model:

$$R_i = A_i + B_i R_M + C_i \tag{2}$$

An idea that only aimed to simplify a model, which could be intractable, enabled the development of one of the main insights of modern finance: The total variability in a security return, that is, a security risk, has a systematic component, due to variations in the aggregate return of the market R_M,

and an unsystematic component, due to events that have an impact on an individual company but no generalized impact on all the companies in the market (C_i). Thus, it is derived from Equation (2) that:

$$\sigma_i^2 = \beta_i^2 \sigma_M^2 + \sigma_{C_i}^2 \leftrightarrow total\ risk = systematic\ risk + unsystematic\ risk \tag{3}$$

where σ_i^2 is the variance of the return on a security (or portfolio), σ_M^2 is the market's variance, $\sigma_{C_i}^2$ is the residual variance, and β_i is usually computed as the ordinary least squares estimator of the parameter B_i, and this is the measure of the systematic risk in relative terms.

This contribution, originally intended for security managers, has multiple applications to the field of stock investment. It is also applicable to other risky assets, from corporate bonds [17] to collectible stamps [18]. However, its intuitive appeal has gone beyond the scope of risky assets. Thus, as a first step in the expansion of its influence, and within the financial field, interesting applications can be found in the study of default prediction [19,20], liquidity [21–24], large-scale infrastructure investment allocation [25], the risk exposure of energy projects and portfolios [26–29], etc.

Countless studies have developed single-index models directly from statistical and econometric sciences within the economic field. Still, it is possible to check how the idea that certain economic variables are driven by both systematic factors and specific causes—as stated in normative models of investor behavior—has been also successfully adopted in relation to risk analysis, beyond the scope of finance. After all, as Collins and Barry [30] argue, the single-index model has no attributes unique to finance, and the choice for R_M is not critical. Following this idea, these authors and others, like Tóth et al. [31], address systematic risk in agriculture. Other examples of applications of the single-index model to economics are, for instance, Finn [32], who investigates the systematic risk of marketing projects, Wu et al. [33], who focus on the study of the oil import risk from portfolio theory, and Gouvea and Vora [34], who use Markowitz and Sharpe models to assess countries' export diversification strategies.

Furthermore, within a field of study allegedly common to economics and politics, the market model is applied to measure electoral risk as well. This risk can also be reasonably divided into systematic and unsystematic components, as shown in Crain et al. [35], who focus on presidential elections in the United States, and Diaz-Cayeros [36], who analyzes elections in Mexico and the United States. This last set of contributions provides some interesting clues that may be helpful in the corporate governance and economic fields, insofar as this approach can be applied to examine the voting results, not only at the political level, but also at the corporate and economic levels, with the aim of pursuing a better understanding of the systematic component of voting results, observed in corporate meetings.

4. Data and Methods

Previous studies highlighted a reputational dimension in votes for the election of directors [6]. Additionally, there is evidence that votes for executive compensation have reputational consequences [37]. Thus, with the aim of assessing the reputational reality of companies through voting decisions, we collected data on votes given in corporate meetings regarding managerial proposals concerning both executive election and compensation. The data cover the period from 2003 to 2017, and they come from the non-profit non-partisan organization, ProxyDemocracy, which has already been used in previous studies [38]. This organization collects data on votes in corporate meetings all over the world, which are disclosed by institutional investors that are especially concerned with corporate governance and sustainability issues. Thus, the profile of the investors covered in the data source adequately serves the purpose of the research.

We filtered the voting data that refer to NASDAQ companies. We selected NASDAQ, among other alternatives (NYSE, for instance), since previous studies suggested that corporate reputation is significantly affected by the inclusion of the company in a certain index, with specific pieces of evidence referring to NYSE-listed companies [39,40]. In other words, we think that the reputation of NASDAQ-listed companies is less mediated by the index itself, so it allows the reputational reality of the company to be isolated, which serves better the purpose of the research.

Due to restrictions of data availability, we focused on companies from the five most represented industries: Finance, technology, healthcare, consumer services, and capital goods. With these voting data, we computed a measure of the voting results (VR) for each company and year. Additionally, we computed an additional aggregated measure for each industry and year. Following previous research, the chosen indicator can be formulated as follows [38]:

$$VR = \frac{1 + pro}{1 + non\ pro} - 1 \tag{4}$$

In Equation (4), "*pro*" and "*non pro*" stand for the proportion of pro votes and the proportion of non-pro votes, that is, against and abstain votes, since combining the against and abstain votes is a usual method to compute dissent, which has already been used in previous studies [41]. If this indicator shows a positive value, this means that most voters support managerial proposals. Conversely, a value below zero implies that voters primarily reject managerial proposals.

Taking advantage of the methodological background previously described, we used Equation (1) as the starting point to define a convenient regression, to be run for each company in the sample using this voting indicator. Therefore, this equation meets the requirements and satisfies the assumptions of the single-index model:

$$VR_c = \alpha + \beta \cdot VR_I + \epsilon \tag{5}$$

In Equation (5):

- VR_c represents the voting result at the corporate level according to Equation (4), computing pro and non-pro votes in corporate meetings held by the company;
- α stands for the intercept;
- β represents the slope or sensitivity;
- VR_I stands for the aggregated voting result of the industry where the company is located, according to Equation (4), computing pro and non-pro votes in corporate meetings held by all covered companies in the same industry;
- ϵ_j is the error term.

Consequently, the voting result for the company is expressed as a function of the voting result of its industry, with β as the coefficient mediating in the relation. Ultimately, this coefficient indicates the sensitivity of voting results in the company to changes in voting results at the industry level.

5. Results and Discussion

We deployed a separate analysis for each of the five industries covered in our sample. First, we excluded the companies with less than three observations. Table 1 compiles the final number of companies by industry and the average value of the voting ratio for the five industries.

Table 1. Number of companies and average voting ratio by industry.

Industry	Number of Companies	Average Industry Voting Ratio
Financial	192	0.290161
Technological	208	0.356798
Healthcare	200	0.245268
Consumer services	122	0.262833
Capital goods	81	0.241782

The average values for the five industries are similar. These values are slightly higher than the breakeven point, indicating that there is a subtle tendency to support managerial proposals on executive election and compensation. With the aim of deepening the understanding of these figures, we ran the regression collected in Equation (5) for each company. We computed the number and

proportion of companies where the voting result at the industry level is significant for the explanation of the voting result at the corporate level, considering the 1%, 2.5%, and 5% levels of significance. For each of these three categories, we focused on the R-squared indicator as a measure of the goodness of fit. Specifically, we computed the average R-squared indicator (Ave. R-sq.). Finally, we also computed the average (Ave. Beta), maximum (Max.), minimum (Min.), and average standard error (Ave. Std. Err.) for the β coefficient.

First, we analyzed the financial industry. Table 2 shows the main results of the estimations. We report the number of companies that show a statistically significant β coefficient for each level of significance and the proportion that this number represents regarding the total in Table 1.

Table 2. Results for companies in the financial industry.

Significance	Number	Proportion	Ave. R-sq.	Ave. Beta	Max.	Min.	Ave. Std. Err.
1%	42	21.8750%	0.722071	1.323728	2.839070	−6.391427	0.321907
2.5%	61	31.7708%	0.667022	1.354472	4.110340	−6.391427	0.371608
5%	78	40.6250%	0.647951	1.286193	4.110340	−6.391427	0.375419

With a 5% significance level, the voting results at the industry level are significant for the explanation of corporate voting results in almost 41% of financial companies, with an average goodness of fit of 0.65, measured through the R-squared indicator. Moreover, the average value for the β coefficient is 1.29. This indicates that the corporate voting results show an aggressive behavior in their relation to industry voting results. In other words, corporate voting results are very sensitive to industry voting results, insofar as the high average value for the β coefficient indicates that voting results at the corporate level overreact to changes in aggregated voting results, when considering the whole financial industry. Consequently, we conclude that this high dependence of corporate voting results from industry voting results indicates a strong systematic component in corporate voting results. Additionally, considering that previous researchers link voting performance regarding managerial proposals to reputational penalties, the analysis of these voting results for a given period highlights the behavior of reputational risk during that period. Ultimately, according to the results previously discussed, we conclude that sustainability-related reputational risk for financial companies in our sample is strongly systematic.

Second, we focused on the technological industry. The results are compiled in Table 3.

Table 3. Results for companies in the technological industry.

Significance	Number	Proportion	Ave. R-sq.	Ave. Beta	Max.	Min.	Ave. Std. Err.
1%	42	20.1923%	0.648995	1.155303	11.369940	−12.093240	0.327842
2.5%	51	24.5192%	0.614354	1.161710	11.369940	−12.093240	0.338813
5%	67	32.2115%	0.567321	1.165353	12.965240	−12.093240	0.427702

With a 5% significance level, industry voting results are significant for the explanation of corporate voting results in 32% of technological companies. The average goodness of fit is 0.57. In addition, the average value for the β coefficient is 1.17. Again, this indicates that corporate voting results perform aggressively in their relation to industry voting results, although their value is slightly lower than the value for the financial industry. Therefore, in the same vein, sustainability-related reputational risk for technological companies has a remarkable systematic component, since corporate voting results overperform, when compared to the whole technological industry's voting results.

Next, we analyzed companies from the healthcare industry. Table 4 summarizes these results.

Table 4. Results for companies in the healthcare industry.

Significance	Number	Proportion	Ave. R-sq.	Ave. Beta	Max.	Min.	Ave. Std. Err.
1%	51	25.5000%	0.585908	0.793340	3.448604	−3.083197	0.248935
2.5%	59	29.5000%	0.583810	0.731188	3.448604	−6.034860	0.281330
5%	75	37.5000%	0.571265	0.869990	4.116832	−6.034860	0.331415

With a 5% significance level, the industry voting results are significant for the explanation of corporate voting results for 37.5% of the companies, with an average goodness of fit of 0.57. The average value of the β coefficient is 0.87. Unlike the industries previously analyzed, corporate voting results in this sector perform defensively in relation to industry voting results. Thus, corporate voting results underperform, when compared to industry voting results. Moreover, considering the reputational dimension of voting behavior, previously discussed, we can conclude that corporate reputational risk in the healthcare industry shows a weak systematic component. In other words, the systematic component of sustainability-related reputational risk is weaker in this industry, when compared to the two previous ones.

The fourth industry analyzed was the consumer services industry. The results for this industry are shown in Table 5.

Table 5. Results for companies in the consumer services industry.

Significance	Number	Proportion	Ave. R-sq.	Ave. Beta	Max.	Min.	Ave. Std. Err.
1%	29	23.7705%	0.151070	0.242386	2.694484	−1.104449	0.052140
2.5%	33	27.0492%	0.163783	0.200037	2.694484	−5.267346	0.067949
5%	40	32.7869%	0.176853	0.210783	2.694484	−5.267346	0.085266

With a 5% level of significance, the industry voting results are significant for the explanation of the corporate voting results in almost 33% of the companies. The average goodness of fit decreases dramatically, when compared to the previous industries, and it shows a value of 0.18. This is a first clue, indicating how industry voting results are, on average, less significant here than in the previous industries, when analyzing voting results at the corporate level. The average value for the β coefficient confirms this idea. The value of 0.21 indicates that voting results perform defensively. Therefore, sustainability-related reputational risk in the consumer services industry shows a low systematic component, weaker than in the previous three analyzed industries.

Finally, we investigated the capital goods industry. These results are compiled in Table 6.

Table 6. Results for companies in the capital goods industry.

Significance	Number	Proportion	Ave. R-sq.	Ave. Beta	Max.	Min.	Ave. Std. Err.
1%	14	17.2840%	0.074874	0.083622	2.869815	−5.704858	0.028306
2.5%	20	24.6914%	0.098930	0.139128	3.023990	−5.704858	0.041835
5%	28	34.5679%	0.121435	0.209071	3.600764	−5.704858	0.075729

The industry voting results are significant for the explanation of the corporate voting results in 35% of the companies, with a 5% level of significance. However, the average goodness of fit is remarkably low, reaching a value of 0.12. Similarly, the average β coefficient shows a value of 0.21. Again, voting results perform defensively. Therefore, sustainability-related reputational risk for companies in this industry shows a weak systematic component.

To sum up, in all analyzed industries, we found a remarkable percentage of companies with voting results that are significantly mediated by the aggregated voting results in their respective industries. This outcome confirms Hypothesis 1. However, there are significant differences in the average value for the β coefficient across industries. Thus, in the financial and technological industries, corporate voting results behave aggressively regarding industry voting results, which indicates a strong systematic

component in those voting results. Conversely, for healthcare companies, and specially for consumer services and capital goods companies, voting results behave defensively, showing a weak systematic component. Thus, interpreting these findings, from a reputational perspective, voting results indicate that reputational risk is strongly systematic for financial and technological companies, while it is slightly defensive for healthcare companies and strongly defensive for consumer services and capital goods companies. Ultimately, this outcome indicates that there are significant differences among industries, which is consistent with previous researches [9,10] and confirms Hypothesis 2.

6. Conclusions

This study applies the single-index model to the analysis of voting results in corporate meetings to investigate to what degree voting results, observed at the corporate level, are affected by aggregated voting results, observed at the industry level. For that purpose, we build a sample of votes on managerial proposals concerning executive election and compensation. These votes refer to companies from the five most represented industries in NASDAQ, and they cover the period from 2003 to 2017. The votes are disclosed by institutional investors who are especially concerned with corporate governance and sustainability issues, providing a sustainability-oriented perspective to the analysis. The study addresses an open research line that postulates that voting performance in corporate meetings captures reputational consequences. Thus, we argue that, by analyzing the evolution of these voting results, it is possible to observe how corporate exposure to sustainability-related reputational risk evolves. Furthermore, taking advantage of the potential of the single-index model, we identify the systematic component of this reputational risk, determining the possible significant differences among industries.

The empirical results confirm that the systematic component of sustainability-related reputational risk is stronger in some industries than in others. Specifically, considering financial and technological firms, the single-index model delivers corporate voting results that perform aggressively in their relation to the industry voting results, meaning that this reputational risk has a remarkable systematic component in these two industries. Considering healthcare companies, we find that corporate voting results perform defensively, which indicates that the systematic component of reputational risk is weaker in this industry. This conclusion becomes even more evident when analyzing the remaining two industries: Consumer services and capital goods. Here, corporate voting results perform even more defensively, so these latter industries show a weaker systematic component of reputational risk.

This study has a set of interesting implications for both researchers and practitioners. Specifically, this study contributes to the corporate governance research field, insofar as it extends the knowledge base concerning voting behavior in corporate meetings. We show how voting results have a systematic component, although its significance is mediated by the industry, where the company is located. However, one limitation of the current study is that the motivations that cause these differences are still a pending question. Thus, further research should explore the reasons behind these variations from one industry to another.

Moreover, this study also contributes to research on reputational risk, generally considered, and, more specifically, sustainability-related reputational risk. This is an open research topic, and studies analyzing the causes and consequences of this risk have a current scientific relevance. In this sense, using the already stablished connection between voting results and reputational consequences, we make an original contribution by showing how analyzing voting results enables the assessment of the systematic component of this reputational risk, showing that some industries are significantly more systematic than others in this respect. However, another limitation of this study is that it does not assess the practical implications of reputational risk for companies, with a systematic component observable through voting results. Acknowledging its existence is a first step, and this is one of the core contributions of this study. However, further research should explore how this finding translates into operational, organizational, or financial consequences for the companies involved.

This also contributes to research concerning the single-index model applications. This methodological framework has already shown its usefulness inside and outside the financial field. This study shows how it also constitutes a suitable approach to the analysis of voting results in corporate meetings, thus allowing corporate governance research to take advantage of the well-known results and robustness of this methodological schema. Thus, we believe we made a reasonable choice by adopting this framework. However, a future more methodologically oriented manuscript should confront our results with other methodological approaches, maybe based on multi-factor models, to explore if some of these alternative methodological frameworks serve better the purpose covered in the current investigation.

Finally, this study also has implications for practitioners. Given that corporate reputation is a key intangible asset for companies in any sector, and considering that it entails a strong strategic value, managing the related reputational risk has become a complex and challenging task. Thus, directors and managers can benefit from the outcome of this research to reach a better understanding of sustainability-related reputational risk and its consequences, measured through voting results of institutional investors in corporate meetings. Moreover, considering that the systematic component of this reputational risk is strong in some industries, while it is weak in others, managers and directors may use this information to design better reputational risk management strategies for their companies, with the aim of minimizing the negative consequences of reputational pitfalls. Ultimately, companies operating in industries with a strong systematic reputational risk should be aware of their exposure to a reputational contagion, so monitoring of the environment becomes even more crucial for these companies in fulfilling their stakeholders' needs to succeed in their reputational management strategies. This last idea should also be carefully considered by public authorities and policy makers, with the aim of identifying the environmental conditions under which reputational crises are more likely to become systemic. Acting that way, they will reach a more accurate policy design, as well as gain more effectiveness in deploying their regulating activities in relation to this issue.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Pineiro-Chousa, J.; Vizcaíno-González, M.; López-Cabarcos, M. Reputation, Game Theory and Entrepreneurial Sustainability. *Sustainability* **2016**, *8*, 1196. [CrossRef]
2. Eckert, C. Corporate reputation and reputation risk: Definition and measurement from a (risk) management perspective. *J. Risk Financ.* **2017**, *18*, 145–158. [CrossRef]
3. Weng, P.; Chen, W. Doing good or choosing well? Corporate reputation, CEO reputation, and corporate financial performance. *N. Am. J. Econ. Financ.* **2017**, *39*, 223–240. [CrossRef]
4. Gaudenzi, B.; Confente, I.; Christopher, M. Managing Reputational Risk: Insights from an European Survey. *Corp. Reput. Rev.* **2015**, *18*, 248–260. [CrossRef]
5. Hoffmann, C.P.; Brønn, P.S.; Fieseler, C. A good reputation: Protection against shareholder activism. *Corp. Reput. Rev.* **2016**, *19*, 35–46. [CrossRef]
6. Ertimur, Y.; Ferri, F.; Maber, D.A. Reputation penalties for poor monitoring of executive pay: Evidence from option backdating. *J. Financ. Econ.* **2012**, *104*, 118–144. [CrossRef]
7. Schäfer, A.; von Arx, U. The influence of pension funds on corporate governance. *Appl. Econ.* **2014**, *46*, 2316–2329. [CrossRef]
8. Sharpe, W.F. A simplified model for portfolio analysis. *Manag. Sci.* **1963**, *9*, 277–293. [CrossRef]
9. Santu, T.V.C.; Mawanza, W.; Muredzi, V. An Evaluation of the Agency Banking Model Adopted by Zimbabwean Commercial Banks. *J. Financ.* **2017**, *5*, 58–66.

10. Walter, I. Reputational risk in banking and finance: An issue of individual responsibility? *J. Risk Manag. Financ. Inst.* **2014**, *7*, 299–305.

11. Pineiro-Chousa, J.; Vizcaíno-González, M.; López-Cabarcos, M.Á.; Romero-Castro, N. Managing Reputational Risk through Environmental Management and Reporting: An Options Theory Approach. *Sustainability* **2017**, *9*, 376. [CrossRef]

12. Benn, S.; Abratt, R.; Kleyn, N. Reducing reputational risk: Evaluating stakeholder salience and prioritising stakeholder claims. *Mark. Intell. Plan.* **2016**, *34*, 828–842. [CrossRef]

13. Khanal, A.R.; Mishra, A.K. Stock price reactions to stock dividend announcements: A case from a sluggish economic period. *N. Am. J. Econ. Financ.* **2017**, *42*, 338–345. [CrossRef]

14. Brivot, M.; Gendron, Y.; Guénin, H. Reinventing organizational control: Meaning contest surrounding reputational risk controllability in the social media arena. *Account. Audit. Account. J.* **2017**, *30*, 795–820. [CrossRef]

15. Matvos, G.; Ostrovsky, M. Heterogeneity and peer effects in mutual fund proxy voting. *J. Financ. Econ.* **2010**, *98*, 90–112. [CrossRef]

16. Markowitz, H. Portfolio selection. *J. Financ.* **1952**, *7*, 77–91.

17. Weinstein, M. The systematic risk of corporate bonds. *J. Financ. Quant. Anal.* **1981**, *16*, 257–278. [CrossRef]

18. Dimson, E.; Spaenjers, C. Ex post: The investment performance of collectible stamps. *J. Financ. Econ.* **2011**, *100*, 443–458. [CrossRef]

19. Kijima, M.; Komoribayashi, K.; Suzuki, E. A multivariate Markov model for simulating correlated defaults. *J. Risk* **2002**, *4*, 1–32. [CrossRef]

20. Qi, M.; Zhang, X.; Zhao, X. Unobserved systematic risk factor and default prediction. *J. Bank. Financ.* **2014**, *49*, 216–227. [CrossRef]

21. Lo, A.W.; Wang, J. Trading volume: Definitions, data analysis, and implications of portfolio theory. *Rev. Financ. Stud.* **2000**, *13*, 257–300. [CrossRef]

22. Chordia, T.; Roll, R.; Subrahmanyam, A. Commonality in liquidity. *J. Financ. Econ.* **2000**, *56*, 3–28. [CrossRef]

23. Hasbrouck, J.; Seppi, D.J. Common factors in prices, order flows, and liquidity. *J. Financ. Econ.* **2001**, *59*, 383–411. [CrossRef]

24. Cremers, K.M.; Mei, J. Turning over turnover. *Rev. Financ. Stud.* **2007**, *20*, 1749–1782. [CrossRef]

25. Joshi, N.N.; Lambert, J.H. Diversification of infrastructure projects for emergent and unknown non-systematic risks. *J. Risk Res.* **2011**, *14*, 717–733. [CrossRef]

26. Kalymon, B.A. Methods of Large Project Assessment Given Uncertainty in Future Energy Pricing. *Manag. Sci.* **1981**, *27*, 377–395. [CrossRef]

27. Awerbuch, S.; Berger, M. *Applying Portfolio Theory to EU Electricity Planning and Policy Making*; IAEA/EET Working Paper No. 03, EET; International Energy Agency (IEA): Paris, France, 2003.

28. Awerbuch, S.; Yang, S. Efficient electricity generating portfolios for Europe: Maximising energy security and climate change mitigation. *EIB Pap.* **2007**, *12*, 8–37.

29. Weitzman, M.L. Tail-hedge discounting and the social cost of carbon. *J. Econ. Lit.* **2013**, *51*, 873–882. [CrossRef]

30. Collins, R.A.; Barry, P.J. Risk analysis with single-index portfolio models: An application to farm planning. *Am. J. Agric. Econ.* **1986**, *68*, 152–161. [CrossRef]

31. Tóth, M.; Lančarič, D.; Piterková, A.; Savov, R. Systematic risk in Agriculture: A case of Slovakia. *Agris On-Line Pap. Econ. Inform.* **2014**, *6*, 185–193.

32. Finn, A. The sensitivity of Canadian consumer product market segments to changes in macroeconomic conditions. *Adv. Consum. Res.* **1987**, *14*, 562.

33. Wu, G.; Liu, L.; Wei, Y. Comparison of China's oil import risk: Results based on portfolio theory and a diversification index approach. *Energy Policy* **2009**, *37*, 3557–3565. [CrossRef]

34. Gouvea, R.; Vora, G. Reassessing Export Diversification Strategies: A Cross-Country Comparison. *Mod. Econ.* **2015**, *6*, 96–118. [CrossRef]

35. Crain, W.M.; Messenheimer, H.C.; Tollison, R.D. The Probability of Being President. *Rev. Econ. Stat.* **1993**, *75*, 683–689. [CrossRef]

36. Diaz-Cayeros, A. Electoral risk and redistributive politics in Mexico and the United States. *Stud. Comp. Int. Dev.* **2008**, *43*, 129–150. [CrossRef]

37. Alissa, W. Boards' response to shareholders' dissatisfaction: The case of shareholders' say on pay in the UK. *Eur. Account. Rev.* **2015**, *24*, 727–752. [CrossRef]

38. Vizcaíno, M.; Chousa, J.P. Analyzing the influence of the funds' support on Tobin's q using SEM and fsQCA. *J. Bus. Res.* **2016**, *69*, 2118–2124. [CrossRef]

39. Yang, C.; Baker, H.K.; Chou, L.; Lu, B. Does switching from NASDAQ to the NYSE affect investment–cash flow sensitivity? *J. Bus. Res.* **2009**, *62*, 1007–1012. [CrossRef]

40. Ryan, J.C. Reflections on the conceptualization and operationalization of a set-theoretic approach to employee motivation and performance research. *J. Innov. Knowl.* **2017**, *2*, 45–47. [CrossRef]

41. Gregory-Smith, I.; Main, B.G. *Binding Votes on Executive Remuneration*; Research Paper; University of Sheffield: Sheffield, UK, 2013.