



Board Risk Score™

Proactively Identify Board Risk

- An Alliance Analytics product

For questions, please email BRS@allianceadvisorsllc.com or contact:

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Introduction

As a leading proxy solicitation firm, Alliance Advisors (“Alliance”) has been at the forefront of advising public companies on how to deal with shareholder activism. One question that always comes up in meetings with board members, the C-Suite and investor relations is “how do we know if we are the next target?” While every situation is different, our team’s involvement in hundreds of contested meetings gives us a unique insight on activist thinking. By combining our familiarity with the key issues that activist investors raise in contested meetings, with a deep knowledge of how proxy advisory firms evaluate contested meetings (in particular, the highly influential Institutional Shareholder Services), we have developed a scoring methodology that measures the vulnerability of a company to an activist attack – the **Board Risk Score™ (BRS)**. In other words, **the BRS is an early-warning system which provides an objective and independent analysis of company’s performance – the same analysis used by most activist investors in identifying and targeting public companies.**

Understanding the Board Risk Score™

Activist investors do not target well-performing companies. They look for underperforming companies where greater shareholder pressure can “unlock the value.” Proxy advisory firms also conduct detailed share price, financial and governance analysis to ascertain if board change is warranted. Almost all the analysis done by both of these groups is based on historical data. Consequently, the BRS is solely driven by historical share price and financial performance. The BRS does not take into account the corporate governance profile of a company.

Furthermore, the BRS ranks a company’s performance relative to its 4-digit GICS group. Currently, the BRS is available for Russell 3000 constituents (excluding financials and insurance companies). The score is based on a proprietary model which evaluates a company’s time-weighted relative performance on several key metrics, namely: Total Shareholder Return, revenue growth, operating margins, acquisition and R&D spending, history of earnings surprise, changes in analyst net income estimates, the impact of cash and short-term investment on Enterprise Value, and Return on Invested Capital. The companies are then categorized as **HIGH, MEDIUM, or LOW** risk based on their relative score.

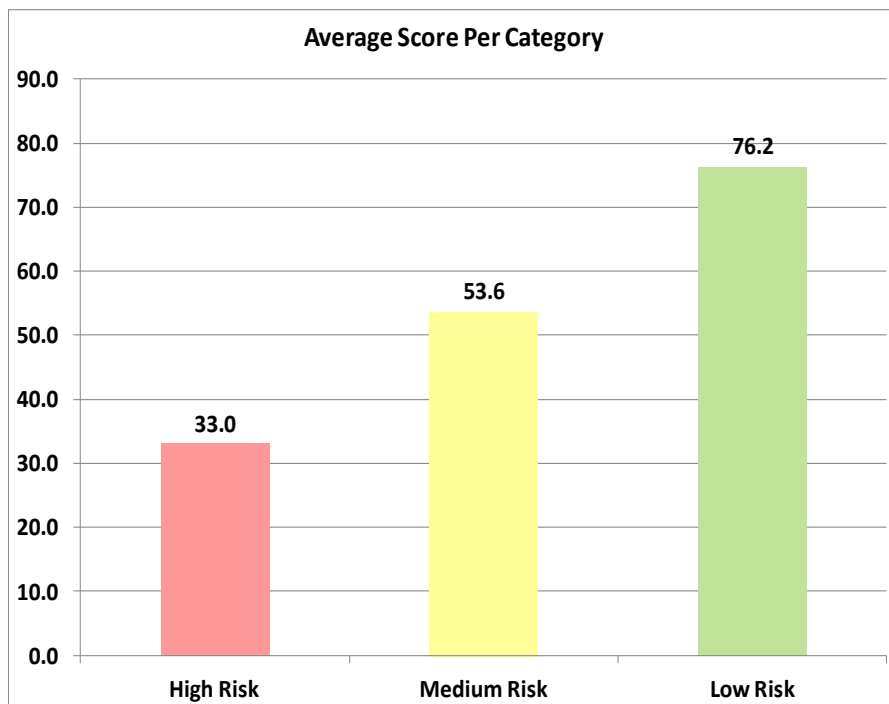
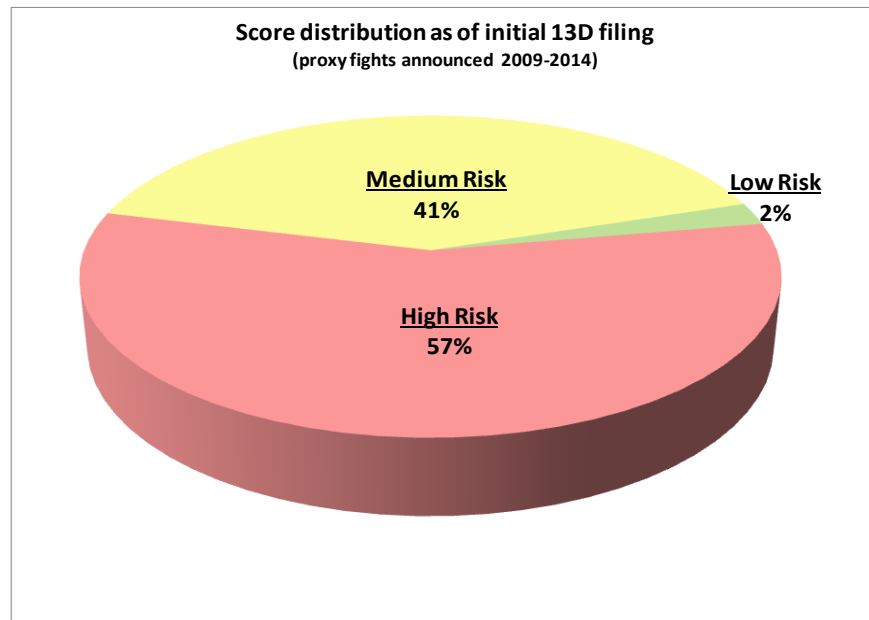
Benefits of BRS

- Provides an objective methodology to determine the level of board vulnerability.
- Components of the score offer insight on key areas of vulnerability such as share price performance, lack of sales growth, history of poor acquisitions, low ROIC, etc.
- Allows companies to track changes in their level of vulnerability over time.
- Provides a dynamic framework to assess the impact of quarterly earnings announcements and changes in company strategy on board vulnerability.
- Simple, concise and can be used for peer analysis to determine relative degree of vulnerability within a given GICS group.

BRS – An Effective Tool for Identifying Board Vulnerability

We back-tested our model by calculating the BRS for proxy contests announced between 2009 and 2014. Our universe is comprised of companies that had at least three years of financial and shareholder return data at the time of the 13D filing. More importantly, the scores were calculated as of the initial 13D announcement date, which preceded the actual proxy contest announcement.

The result: **Approximately 98% of the companies where activists’ eventually engaged in a proxy contest for board representation had “High” and “Medium” risk scores at the time of the initial 13D filing.**



Knowledge and Expertise

Our proprietary model was developed by Waheed Hassan, CFA, in consultation with Zeesham Rasheed, PhD, and Srikanth Ramamurthy, PhD.

Zeesham Rasheed, PhD

Dr. Rasheed is the Lead Data Scientist at AOL Inc. His research interests include performing complex data analysis on large-scale datasets using data mining and machine learning techniques. He earned his PhD from the Department of Computer Science at George Mason University. His PhD research focused on developing algorithms for classification, clustering, similarity search and statistical analysis. He is also adjunct faculty at Strayer University and George Mason University.

Srikanth Ramamurthy, PhD

Dr. Ramamurthy is the Assistant Professor of Economics at Loyola University's Sellinger School of Business. He earned his PhD from Washington University in St. Louis. His research interests include Bayesian Econometrics, Applied Time Series, Macroeconomics, and Financial Economics.

Waheed Hassan, CFA – Senior Managing Director, Alliance Advisors, LLC

Mr. Hassan has extensive experience in dealing with activist investors and has advised institutional investors on 100+ contested situations. Prior to joining Alliance, he managed the M&A/Proxy Contest research team at Institutional Shareholder Services (ISS). He was involved in several high profile proxy fights (Target, Barnes & Noble, NRG Energy, Office Depot), and merger transactions (IPC Holdings/Validus, Xerox/ACS, First Energy/Allegheny Energy).

Previously, Waheed worked as a Senior Research Analyst UBS Warburg and Indosuez W.I. Carr Securities. He has extensive sell-side research experience and was included among the #1 rated financial sector research analysts in The Reuters Survey of Global Emerging Markets 1998. He was also a member of the #1 rated research team according to both The Reuters Survey of Global Emerging Markets 1999 and Euromoney Awards for Excellence 2000. Waheed is a CFA charter holder and received an MBA with Beta Gamma Sigma honors from Vanderbilt University.

Appendix: Selected Proxy Campaigns and Attendant Scores

Ticker	Company	Activist	Initial 13D Filing Date	Board Risk Score
ALOG	Analogic Corp	Ramius LLC	9-Dec-09	16.1
ALR	Alere Inc.	Coppersmith Capital Management, LLC Scopia Management, Inc.	8-May-13	41.2
AMAG	Amag Pharmaceuticals	MSMB Capital Management LLC	2-Aug-11	49.3
ANF	Abercrombie & Fitch Co.	Engaged Capital LLC	3-Dec-13	26.5
AOL	AOL Inc.	Starboard Value LP	21-Dec-11	15.9
BID	Sothebys	Third Point LLC	26-Aug-13	63.6
BJRI	BJ's Restaurants Inc.	Clinton Group, Inc.	6-Mar-14	43.5
BKS	Barnes & Noble Inc.	Yucaipa American Management, LLC	13-Nov-09	27.3
BOBE	Bob Evans Farms Inc.	Sandell Asset Management Corp.	24-Sep-13	54.3
CLGX	Corelogic Inc.	Highfields Capital Management LP	29-Aug-11	17.5
CLX	Clorox Co.	Carl C. Icahn	11-Feb-11	56.3
CMC	Commercial Metals Co.	Carl C. Icahn	28-Jul-11	27.9
CVI	CVR Energy Inc.	Carl C. Icahn	13-Jan-12	46.6
DRI	Darden Restaurants Inc.	Starboard Value LP	2-May-14	31.6
DYN	Dynegey Inc.	Seneca Capital Advisors LLC	11-Nov-10	41.7
EA	Electronic Arts Inc.	Relational Investors, LLC	31-May-11	17.3
EXTR	Extreme Networks Inc.	Ramius LLC	22-Jul-10	29.1
HES	Hess Corp.	Elliott Management Corporation	28-Jan-13	48.4
IGT	Intl Game Technology	Ader Investment Management LP	7-Jan-13	35.6
ODP	Office Depot Inc.	Starboard Value LP	17-Sep-12	23.2
OPLK	Oplink Communications	Engaged Capital LLC Voce Capital Management LLC	14-Jul-14	37.5
PLXT	PLX Technology Inc.	Balch Hill Capital LLC	7-Feb-12	48.8
PTRY	Pantry Inc.	Lone Star Value Management, LLC JCP Investment Management LLC	23-Jan-14	32.0
RRGB	Red Robin Gourmet Burger	Oak Street Capital Management LLC Kovitz Investment Group LLC	10-Dec-10	42.1
RT	Ruby Tuesday Inc.	Becker Drapkin Management LP Carlson Capital LP	3-Jun-11	40.6
RTK	Rentech Inc.	Engaged Capital LLC Lone Star Value Management, LLC	13-Jan-14	50.3
SD	Sandridge Energy Inc.	TPG-Axon Capital	8-Nov-12	42.1