Adrian Renner

Does carbon-conscious behavior drive firm performance?

An event study on the Global 500 companies

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With a foreword by Prof. Dr. Kai-Ingo Voigt

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This is dedicated to my loving mother, Hannelore Renner, and girlfriend, Carolin Ulrich, whose constant support and words of encouragement have been a cornerstone for the success of this journey.

Foreword

Scientific research is still at the beginning to understand the relationship between disclosure of carbon information, carbon performance and stock price reaction. For almost any listed company the investors' pressure to disclose climate-relevant information has increased significantly over the last years. Additionally, businesses are ranked by independent parties (such as the Carbon Disclosure Project) in regards to their ability to cope with the challenges posed by climate change. Consequently corporate leaders need to decide whether their company shall take part in these kind of projects, possibly facing negative evaluations or rejecting the investors request, which might also have adverse implications. Knowing how equity holders, which ultimately determine the corporate leaders' fate, will react is crucial for their decision making.

To address these identified gaps in research and practice, Mr. Renner provides interesting insights into how investors react if businesses are moving towards a green future. The strength of this thesis is that research is grounded in appropriate and relevant theory and that sound and mature quantitative research method (event study approach) is pursued. Simultaneously, it addresses a highly relevant topic for practitioners, who are analyzing the capital markets response to carbon-conscious behavior depending on various factors e.g. region, sector, share of institutional investors, carbon intensity, etc.

Since this research project was trying to answer questions on a global scale, Mr. Renner used the Carbon Disclosure Project report on the Global 500 companies, which allowed him to synthesis results from 387 companies from 28 countries.

In conclusion, this book offers new and outstanding insights and can, thus, be highly recommended for researchers and practitioners who are engaged in this field of research.

Prof. Dr. Kai-Ingo Voigt

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Dipl.-Kfm. Adrian Renner

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List of abbreviations

APT	Arbitrage Pricing Theory
AR	Abnormal return
B2B	Business-to-Business
B2C	Business-to-Consumer
BAU	Business as usual
BRIC	Brazil, Russia, India and China
CAC 40	Cotation Assistée en Continu 40
CAPM	Capital Asset Pricing Model
CDP	Carbon Disclosure Project
CDLI	Carbon Disclosure Leadership Index
CEO	Chief Executive Officer
CEP	Center on Economic Priorities
CO_2	Carbon dioxide
COGS	Cost of goods sold
CH_4	Methane
CSR	Corporate Social Responsibility
DAX	Deutscher Aktien Index
EBIT	Earnings before interest and taxes

EMS	Environmental Management System
EPA	Environmental Protection Agency
ET	Eastern Time
ETF	Exchange Traded Fund
EU	European Union
EUR	Euro
FRDG	Franklin Research and Development Group
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
GHGs	Greenhouse gases
GICS	Global Industry Classification Standard
GM	General Motors
GSCM	Green Supply Chain Management
IFRS	International Financial Reporting Standards
IPCC	Intergovernmental Panel on Climate Change
IRRC	Investor Responsibility Research Center
ISO	International Standardization Organization
IT	Information Technology
JV	Joint Venture
M&A	Mergers and Acquisitions
MBA	Master of Business Administration
MSCI	Morgan Stanley Capital International

NO_2	Nitrous dioxide
NGO	Non-governmental organizations
OEM	Original Equipment Manufacturer
OLS	Ordinary Least Squares
PPM	Parts per million
PR	Public relations
PWC	PriceWaterhouseCoopers
RoA	Return on Assets
RoI	Return on Investment
RoS	Return on Sales
S&P 500	Standard and Poor's 500
SRES	Special Report on Emission Scenarios
SUV	Sport Utility Vehicle
TCTF	Total Company Target Fulfillment
UK	United Kingdom
US	United States
USD	United States Dollars
UV	Ultraviolet
W	Watt

Table of symbols

$\sum$	Summation

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