

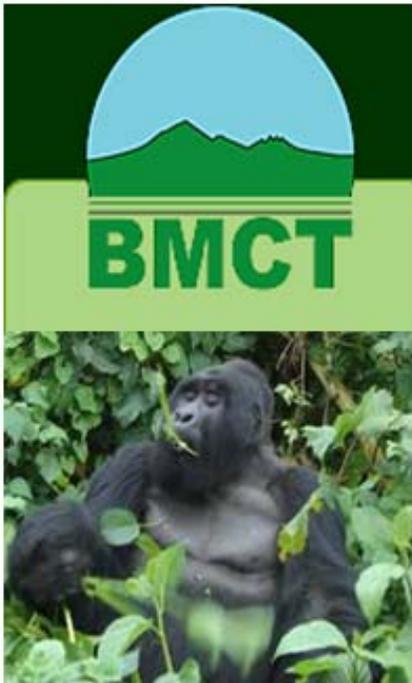
The Arbor Group

Evolution of Portfolio Management: The Impact of Corporate Environmental, Social and Governance (ESG) Information

December, 2012



A Commitment to Conservation Preservation



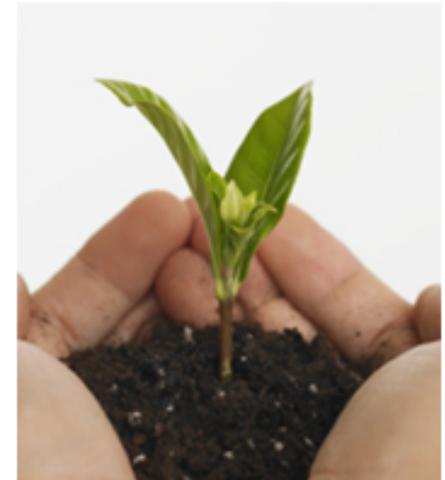
What is Sustainable or Socially Responsible Investing?

SRI is a "catch-all term"...

//
Socially Responsible Investments (SRI) are investments which, in addition to traditional **financial** factors, also take **ecological, social** and **governance** criteria into consideration.

//
Different definitions referring to largely the same approach:

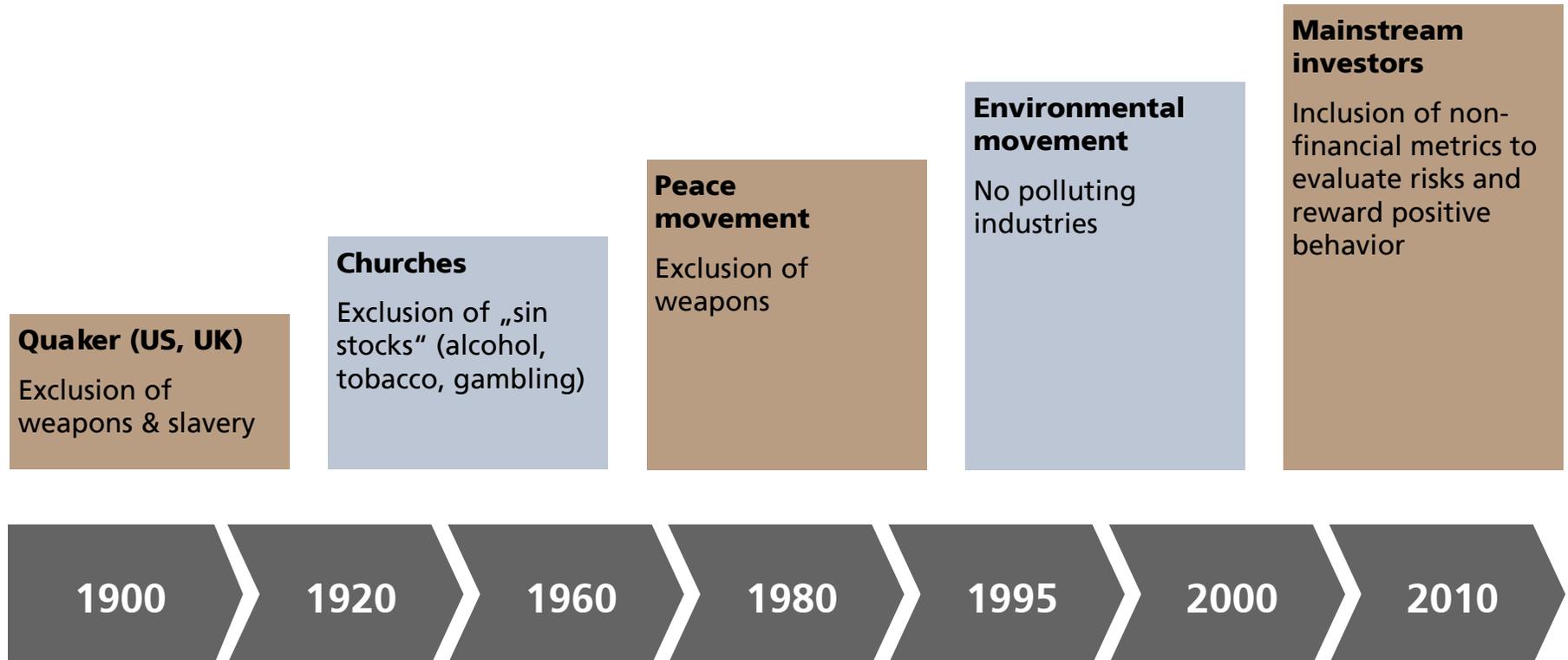
- Socially Responsible Investments (SRI)
- Environmental, Social and Governance (ESG)
- Extra-financial
- Ethical investments
- Sustainable Investments



...encompassing many different strategies

Investing based on values has a long history

SRI is a trend which has been evolving over the last century



Corporate earnings impacts

Environmental, Social and Governance key indicators

ESG Inputs

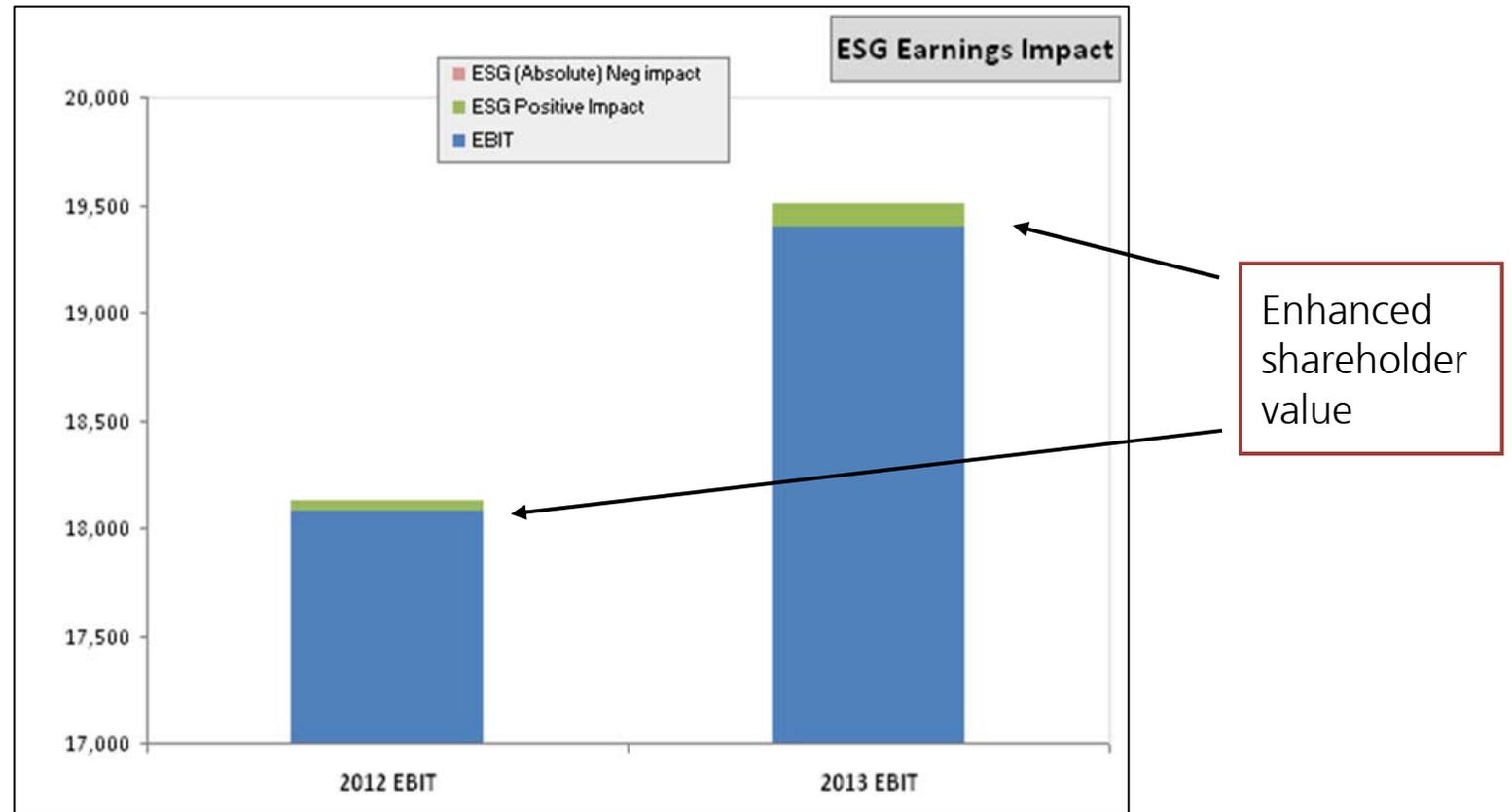


Key Performance Indicators (KPI)

- Energy Intensity
- Direct GHG Intensity
- Travel CO₂ Intensity
- Waste Intensity
- Water Intensity
- Paper & Packaging Intensity
- Accident Severity
- Employee Turnover
- Workforce Replacement
- Pensions
- Philanthropic contributions
- ESG Provisioning
- Board Independence

Positive earnings impacts

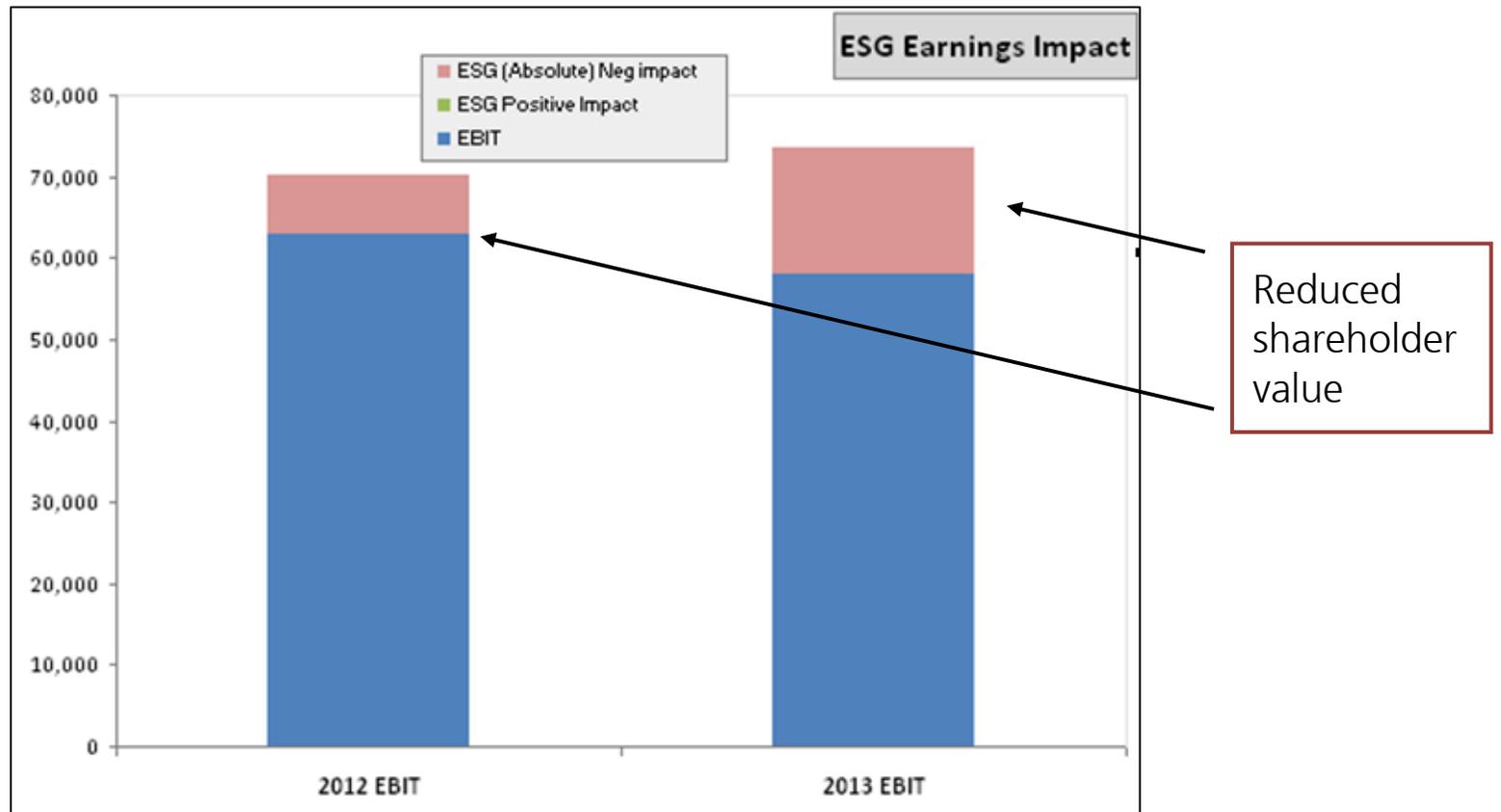
Meaningful contribution to earnings



Source: Bloomberg. Intel Corporation

Negative earnings impacts

Significant detractor from earnings



Source: Bloomberg. Exxon Mobile Corporation

Does corporate social responsibility affect the cost of capital?

Study: September 2011

Academic Studies



Using a sample of 12,915 U.S. firms from 1992 to 2007

Findings

Firms with better Corporate Social Responsibility scores exhibit

- Higher valuation and lower risk
- Lowers equity financing costs through alignment of corporate leadership with the interests of shareholders and stakeholders.

Authors: Sadok El Ghoul, Omrane Gudehami, Chuck C. Kwok, De R. Mishra

Corporate environment management and credit risk

Study: June 2011

Academic Studies



Using Mergent Fixed Income Securities Database (FISD) to track the yield spreads on 2,242 bonds by 582 different issuers from 1995 to 2006.

Findings

Environmental concerns are associated with a higher cost of debt financing and lower credit rating while proactive environmental practices are associated with a lower cost of debt.

- Author's estimate a maximum environmental performance effect on the cost of debt of up to 64 basis points per annum.

Authors: Rob Bauer, Daniel Hann Maastricht University

Does corporate social responsibility affect the cost of capital?

Study: September 2011

Academic Studies



Using carbon emission data from firms participating the in Carbon Disclosure Project during 2006-2008.

Findings

Evidence the market attaches an implicit cost to carbon emissions even though there is currently no explicit cost

- Disclosures inform investors
- This translates into a firm value penalty of \$1.28 billion for firms in the 3rd quartile (in terms of carbon emissions) relative to firms in 1st quartile.

Authors: Ella Mae Matsumura, Rachna Prakash, Sandra C. Vera-Muñoz

The Arbor Group Team



John S. Adams, CFP, CIMA, is the Director of the Arbor Group and has been in the investment field for 27 years. He is a Certified Financial Planner, Certified Investment Management Analyst, and has a master's degree in Management and a Master's Degree in Financial Services. Prior to the financial field John was a concert classical guitarist.

John and his wife Andrea have three children and a Bernese Mountain dog. He is an avid mountaineer and amateur wildlife photographer.



Stephanie Keeton Honan, CFP, has been a financial advisor since 1996. She has extensive background in wealth management services that includes corporate asset management, high net-worth planning, business retirement programs, charitable giving, and employee stock options.

Stephanie earned a B.A. in political science from Washington State University and has completed postgraduate work in finance at the University of Washington. She is a Certified Financial Planner, CFP®, and holds a Wealth Management Certification. Stephanie currently resides in Magnolia with her husband and her pets.



Carlos Obando was born in Guayaquil, Ecuador and moved to Brooklyn, NY when he was six years old. He attended Stuyvesant High School, Duke University (cum laude degree in Engineering) and Harvard Business School, where he earned his MBA in 1983.

Carlos has two sons, 3 dogs. He enjoys international travel, skiing and modern art and is active with and has been President of the MIT Enterprise Forum of the Northwest.



Patrick T. Drum, CFA, CFP, has been in the financial industry for over fifteen years with previous positions at Morgan Stanley and at Washington Mutual as a member of the Capital Markets Group. Patrick is a Chartered Financial Analyst (CFA) charter holder, Certified Financial Planner and obtained his MBA from Seattle University in 2007.

Patrick and his wife Jennifer have two children. He enjoys the Seattle Mariners, the Tacoma Rainiers, sea-kayaking and golfing.



Jason Hamlin, CIMA, CRPC, is a Wealth Strategy Associate and has been with UBS for 6 years. Jason is a Certified Investment Management Analyst (CIMA) and a Chartered Retirement Planning Counselor (CRPC). Jason earned his CIMA designation from the Wharton Business School and his CRPC designation from the College for Financial Planning.

Jason was President of the Greater Wasilla Chamber of Commerce and served on multiple high profile boards. He was one of Alaska's 'Top 40 Under 40' in 2009. Jason and his wife Joey have three children. He likes to play soccer, hike, and cheer for Seattle sports teams.



Deena Fuller, RCSA, is a Registered Paraplanner. She provides administrative support and client service, and has over 10 years of experience in the financial industry. After graduating from Seattle University she traveled throughout Asia and began her career teaching English as a Second Language in Japan and then returned to teach high school in the Seattle area.

In her spare time, Deena enjoys Japanese gardening, her book club, playing the violin and traveling with her husband.



Leah Cairns is a Client Service Associate. She provides administrative support and client service for our team. She recently graduated from the University of Washington with a degree in Painting and Drawing and is working toward her Series 7 license.

Leah lives in Seattle, and enjoys cooking, traveling and graphic design.



Tom Aguirre is a Senior Registered Client Service Associate. He provides administrative support and client service for our team and has over 10 years of experience in the financial service industry. After graduating from California State University, San Bernardino he was a Peace Corps volunteer in Niger, West Africa. Prior to working in finance, he was in the bicycling industry. In his spare time, he enjoys bicycling, painting and spending time with his wife and family.

Contact

The Arbor Group
Portfolio Management and Institutional Consulting

UBS Financial Services, Inc.
925 Fourth Ave., Suite 200 | Seattle, WA 98104
206-447-8554 Direct | 800-426-7531 Toll Free
206-628-6556 Fax

www.ubs.com/team/thearborgroup

Disclaimer

This document and the information contained herein are provided solely for information purposes, they are not to be regarded as investment research, and they are not to be construed as an offer or as a solicitation of an offer to buy or sell any securities or other financial instruments in Switzerland, the United States or any other jurisdiction. Please note that UBS retains the right to change the range of services, the investment products and the prices at any time without prior notice and that all information and opinions indicated are subject to change. Further, asset classes, asset allocation and investment instruments are indicative only.

No investment decision relating to securities of or relating to UBS AG or its affiliates should be made on the basis of this document. All investments carry a certain degree of risk and the attention is hereby drawn to such risks which can be substantial. The market in the certain securities may be illiquid and therefore valuing the investment and identifying the risks may be difficult. Some investments may be subject to sudden and large falls in value and on disposition may pay back less than invested. The client should consult the UBS client advisor on the nature of each investment and carefully consider whether such investment is appropriate for the client's situation. Further, tax treatment depends on the individual client's circumstances and may be subject to change in the future. UBS does not provide legal or tax advice and makes no representations as to the tax treatment of assets or the investment returns thereon, either in general or with reference to a specific client's circumstances and needs. Clients should obtain independent tax advice on the suitability of products, assets or investment instruments before investing and as they may consider appropriate.

This document contains statements that constitute "forward-looking statements", including but not limited to management's outlook for UBS's financial performance and statements relating to the anticipated effect of transactions and strategic initiatives on UBS's business and future development. While these forward-looking statements represent UBS's judgments and expectations concerning the matters described, a number of risks, uncertainties and other important factors could cause actual developments and results to differ materially from UBS's expectations. These factors include, but are not limited to: (1) future developments in the markets in which UBS operates or to which it is exposed, including movements in securities markets, credit spreads, currency exchange rates and interest rates; (2) the effect of the current economic environment or other developments on the financial position or creditworthiness of UBS's customers and counterparties; (3) changes in the availability of capital and funding, including any changes in UBS's credit spreads and ratings; (4) the consequences of the recent Swiss court decision relating to the provision of certain UBS client data to the US Internal Revenue Service, including possible effects on UBS's 2009 settlements with US authorities and on its businesses; (5) the outcome and possible consequences of pending or future actions or inquiries concerning UBS's cross-border banking business by tax or regulatory authorities in various other jurisdictions; (6) the degree to which UBS is successful in effecting organizational changes and implementing strategic plans, and whether those changes and plans will have the effects intended; (7) UBS's ability to retain and attract the employees that are necessary to generate revenues and to manage, support and control its businesses; (8) possible political, legal and regulatory developments, including the effect of more stringent capital and liquidity requirements, constraints on remuneration and the imposition of additional legal or regulatory constraints on UBS's activities; (9) changes in accounting standards or policies, and accounting determinations affecting the recognition of gain or loss, the valuation of goodwill and other matters; (10) limitations on the effectiveness of UBS's internal processes for risk management, risk control, measurement and modeling, and of financial models generally; (11) changes in the size, capabilities and effectiveness of UBS's competitors; (12) the occurrence of operational failures, such as fraud, unauthorized trading and systems failures, either within UBS or within a counterparty; and (13) technological developments. In addition, actual results could depend on other factors that we have previously indicated could adversely affect our business and financial performance which are contained in our past and future filings and reports, including those filed with the SEC. More detailed information about those factors is set forth in documents furnished by UBS and filings made by UBS with the SEC, including UBS's Annual Report on Form 20-F for the year ended 31 December 2009. UBS is not under any obligation to (and expressly disclaims any obligation to) update or alter its forward-looking statements, whether as a result of new information, future events, or otherwise.

Refer to UBS's annual and quarterly financial reports, including the Annual Report 2009 for additional information. These reports are available at <http://www.ubs.com/1/e/investors/topics.html>. No representation or warranty is made or implied concerning, and UBS assumes no responsibility for, the accuracy, completeness, reliability or comparability of the information contained herein relating to third parties, which is based solely on publicly available information. UBS undertakes no obligation to update the information contained herein.

UBS specifically prohibits the redistribution of this material in whole or in part without the written permission of UBS and UBS accepts no liability whatsoever for the actions of third parties in this respect.

© UBS 2010. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved

