Making and Measuring the Business Case for Sustainability

Presentation for the
Symposium on Sustainability

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Agenda:

I. Making the Business Case -- Changing Traditional Views

II. Data Challenges

III. Measuring Environmental Performance

IV. Measuring Social Performance

IV. The Electric Utility Sector

Financial Analyst's View of the Environment:

- ***Environmental expenditures reduce profitability***
- ***Therefore, minimize environmental expenditures***
- ***Environment is primarily a risk management issue***
- ***Fiduciary responsibility to maximize returns precludes consideration of social/ethical issues, such as the environment***

Changing Viewpoint:

- ✦ ***Nearly all academic and business studies show a positive correlation between environmental and stock market performance***
- ✦***Correlation exists because environmental performance is an excellent proxy for management quality***
- ✦ ***Management quality is the leading determinate of stock market performance***

Changing Viewpoint:

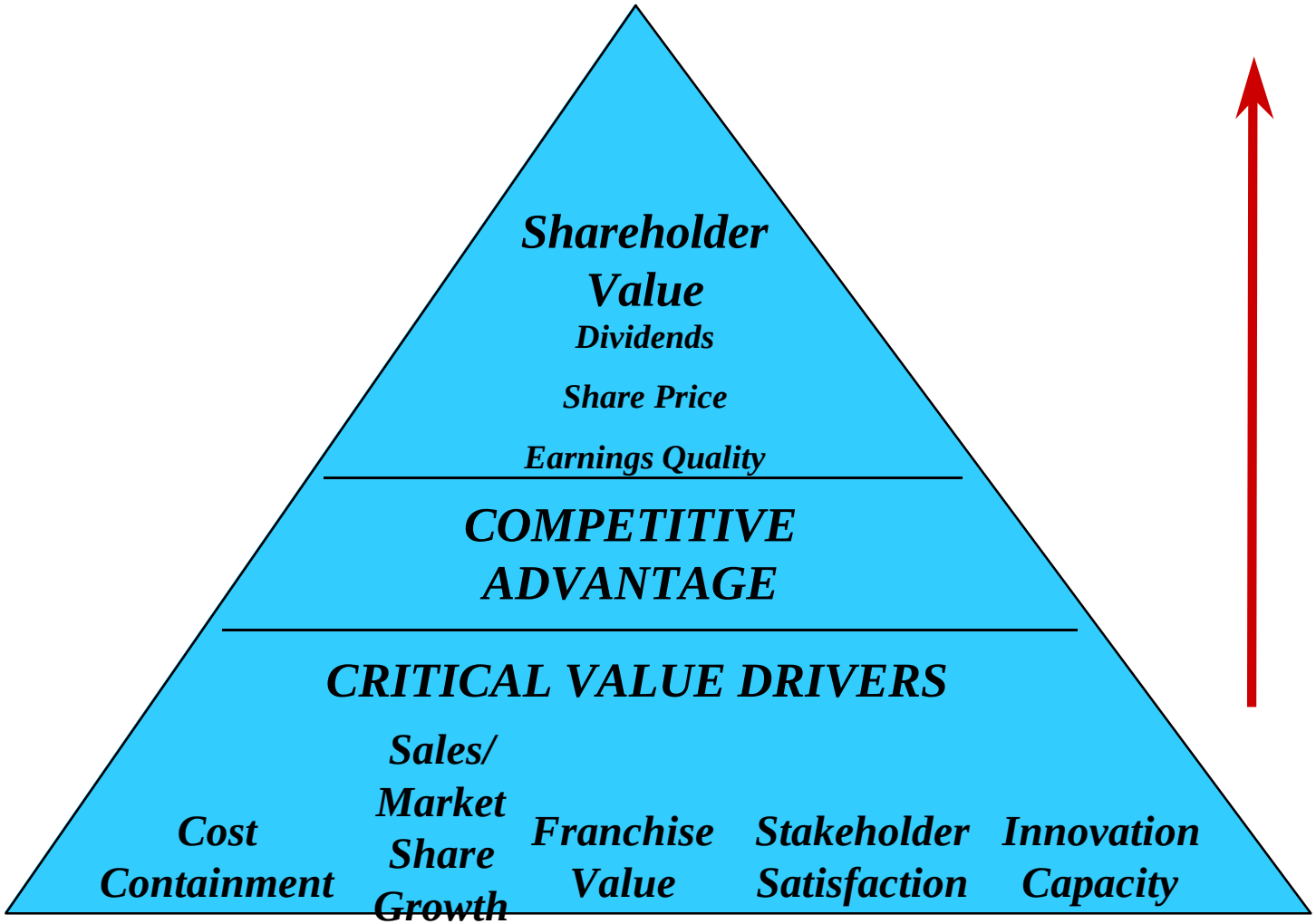
- ✦ ***Environment is one of the most complex challenges facing management***
- ✦ ***High level of uncertainty***
- ✦ ***Many issues, stakeholders and non-financial measures***
- ✦ ***Effectiveness in dealing with this level of complexity implies ability to handle other business areas well***
- ✦ ***Yields superior financial and stock market performance***

Managing Downside Risk:

- ***Market risk*** *(corporate reputation and image, reduced customer acceptance, potential loss of "social license to do business.")*
- ***Operating risk*** *(emissions and discharge risk, product liability risk, required process changes)*
- ***Balance sheet risk*** *(historic liabilities, impairment of real property values, underwriting losses).*
- ***Capital cost risk*** *(pollution control expenditures, product redesign costs).*
- ***Transaction risk*** *(potential cost of time, money, and delayed or canceled acquisitions or divestitures).*
- ***Business sustainability risk*** *(potential competitive risk from lack of efficiency/ sustainability in energy, materials, and resource use).*

The Link Between Environmental & Financial Performance: EcoValue'21™

ENVIRONMENTAL PERFORMANCE DRIVES SHAREHOLDER VALUE



ENVIRONMENTAL OUT-PERFORMANCE

Why Investors Need Eco-Efficiency Metrics

Factors <u>increasing</u> the "eco-efficiency premium" in future:

- ***Tightening global and domestic regulatory pressures*** →
- ***Changing consumer demographics/investment patterns*** →
- ***Growing financial and competitive benefits to industrial companies*** →
- ***Increasing institutional investor awareness*** →
- ***Global population/resource consumption pressure*** →
- ***Growing information transparency*** →

Increased "Eco-Efficiency" Premium

What does the Investor/Analyst Really Need?

Problem for Investors:

Environmental information, at this stage, is often:

- Lagged, inaccurate, biased, missing

- Confusing

- Unevenly reported across companies, sectors, countries

- Hard to interpret

Investors need credible, third party, expert analysis to simplify their own job of analyzing companies relative to industry peers.

Innovest Strategic Value Advisors

- ***A leading-edge international investment advisory firm with offices in New York, Toronto and London.***

- ***Using the EcoValue'21™ environmental performance rating system, Innovest has rated over 1,200 large, publicly-held companies in the US, Canada, Europe and Asia.***

- ***We provide company profiles, research reports and custom portfolio analysis to financial institutions, endowments, foundations, pension funds and investment funds.***

- ***Research is based on the evidence that eco-efficiency is a proxy for, and predictor of, superior corporate management, which generates superior financial performance & shareholder value.***

Who We Are:
Innovest Strategic Value Advisors

Directors and Senior Advisors:

James Martin: Chairman (former Chief Investment Officer, TIAA-CREF)

David Van Pelt: Vice-Chairman (former Executive V.P., Citibank)

Arthur Lipper (co-founder, Lipper Analytical Services)

Alan Silberstein (former CEO, Travelers Property & Casualty Insurance Group subsidiary, Executive V.P., Chemical Bank)

Lord Michael Sandberg (former World Chairman, Hong Kong and Shanghai Bank)

Rt. Hon. Lord Nigel Lawson (former Chancellor of the Exchequer, United Kingdom)

Our Model, Briefly

EcoVALUE '21 analyzes over 60 key variables using over 20 data sources:

***Historical Contingent Liabilities*:**
- Superfund
- State and hazardous waste sites
- RCRA
- Toxic torts

Operating Risk Exposure:
- Toxic emissions
- Product risk liabilities
- Hazardous waste disposal
- Waste discharges
- Supply chain management risk

EcoVALUE '21 RATING

Managerial Risk Efficiency Capacity
- Strategic corporate governance capability
- Environmental management systems strength
- Environmental audit/accounting capacity
- Supply chain management
- Training capacity and intensity
- Generic environmental management protocols
- Industry-specific protocols

Eco-Efficiency and Sustainability Risk:
- Energy intensity and efficiency
- Raw materials & natural efficiency and intensity
- Product life-cycle durability and recyclability
- Exposure to shifts in consumer values

Strategic Profit Opportunities
- ability to profit from environmentally-driven industry and market trends

EcoValue'21™

Company Symbol:	**GP**	**LPX**
Company Name:	**Georgia-Pacific Corp**	**Louisiana-Pacific Corp**
Industry:	**Paper, Forest Prods & Containers**	**Paper, Forest Prods & Containers**
Category	**Weighted Score**	**Weighted Score**
RISK FACTORS		
Superfund Liabilities	93	103
Other Site Liabilities	165	85
Spills and Releases	102	12
Regulatory Compliance	56	0
Toxic Emissions	105	75
Hazardous Waste Disposal	0	105
Resource Use Efficiency	28	12
Industry Sustainability Risk	51	40
Total Score of Risk Factors	600	432
RISK MITIGATION FACTORS		

Key variables are summarized in a Scoring Matrix.

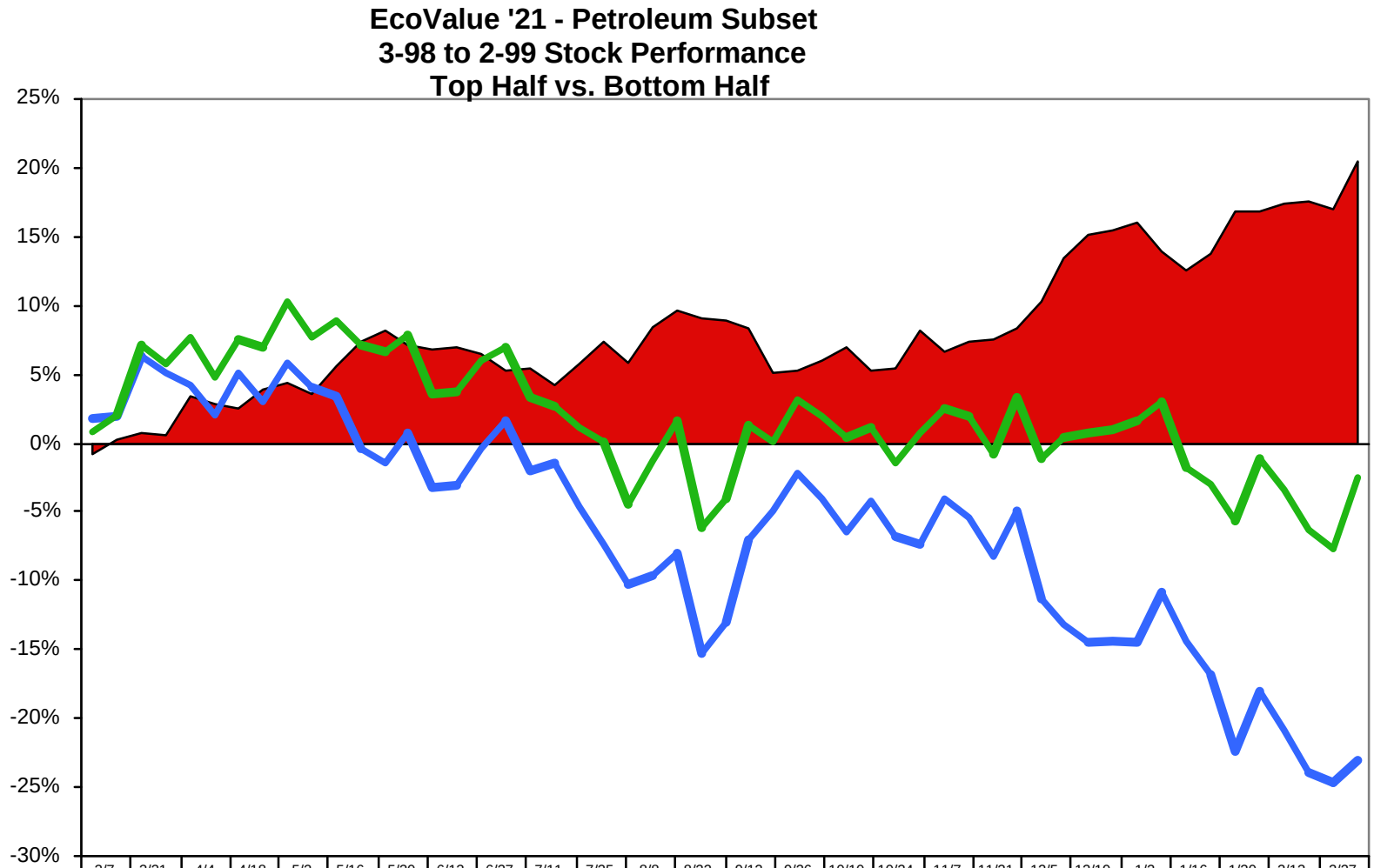
Raw scores are weighted using Innovest's proprietary algorithms, and a final score is generated).

This score is based on the company's environmental performance **relative to its competitive set**.

In this case, Georgia-Pacific received the highest score in the Forest Products sector and Louisiana-Pacific received the lowest.

The scores are converted to alphabetical ratings similar to the familiar ratings on corporate bonds (from AAA - best to CCC - worst).

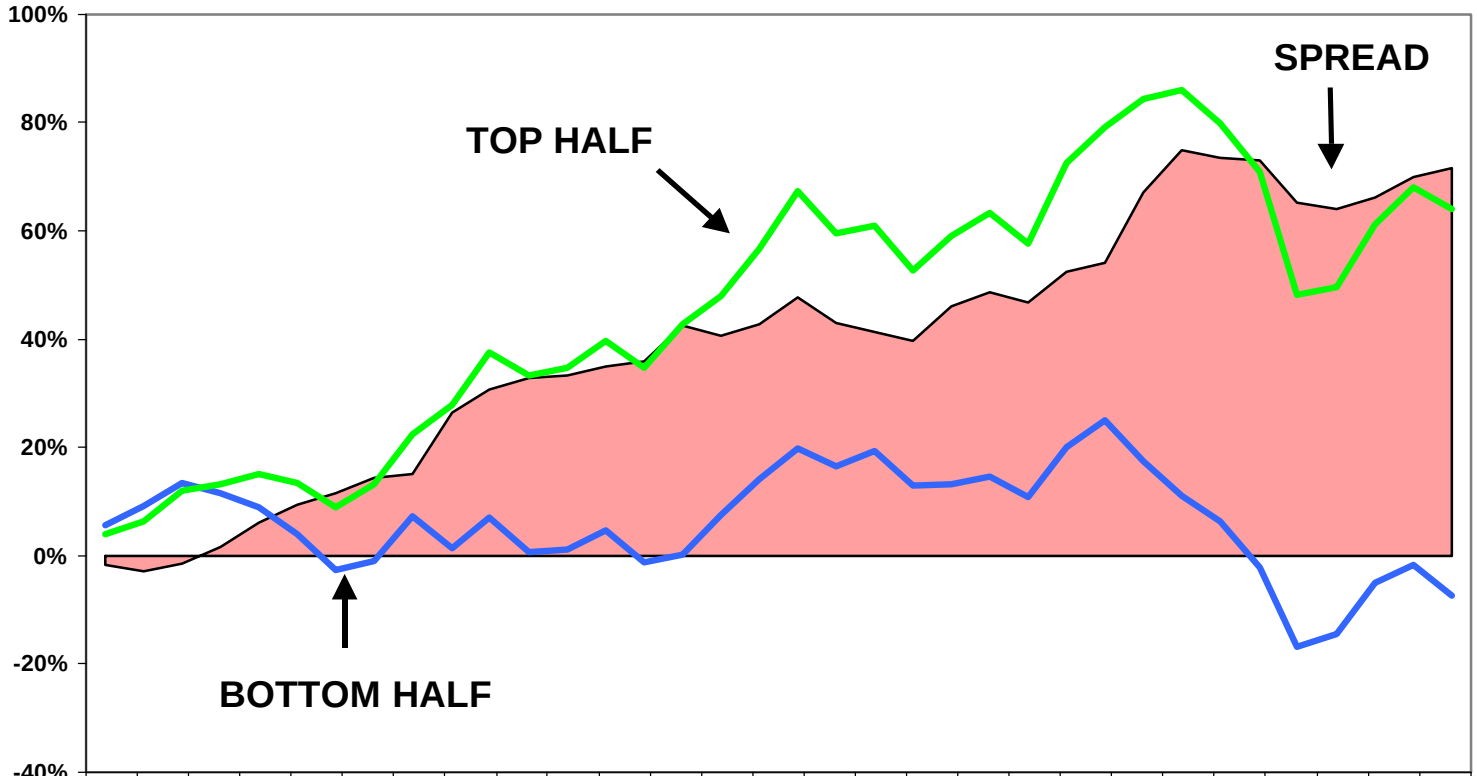
EcoVALUE'21™ Sample Results: Petroleum Sector



	3/7	3/21	4/4	4/18	5/2	5/16	5/30	6/13	6/27	7/11	7/25	8/8	8/22	9/12	9/26	10/10	10/24	11/7	11/21	12/5	12/19	1/2	1/16	1/30	2/13	2/27
Difference	-0.9%	0.7%	3.4%	2.4%	4.3%	5.5%	8.1%	6.7%	6.5%	5.3%	5.8%	5.9%	9.6%	8.3%	5.2%	6.9%	5.4%	6.7%	7.5%	10.2%	15.1%	16.0%	12.6%	16.8%	17.4%	17.0%
Top Half Average	0.9%	7.0%	7.7%	7.5%	10.2%	8.9%	6.6%	3.5%	6.1%	3.2%	1.1%	-4.5%	1.6%	1.3%	3.1%	0.4%	-1.4%	2.6%	-0.8%	-1.2%	0.7%	1.6%	-1.8%	-5.6%	-3.5%	-7.7%
Bottom Half Average	1.8%	6.4%	4.2%	5.1%	5.9%	3.4%	-1.5%	-3.2%	-0.4%	-2.1%	-4.6%	-10.3%	-8.0%	-7.0%	-2.1%	-6.5%	-6.8%	-4.1%	-8.3%	-11.4%	-14.4%	-14.4%	-14.4%	-22.4%	-20.9%	-24.7%

EcoVALUE'21™ Sample Results: Chemical Sector

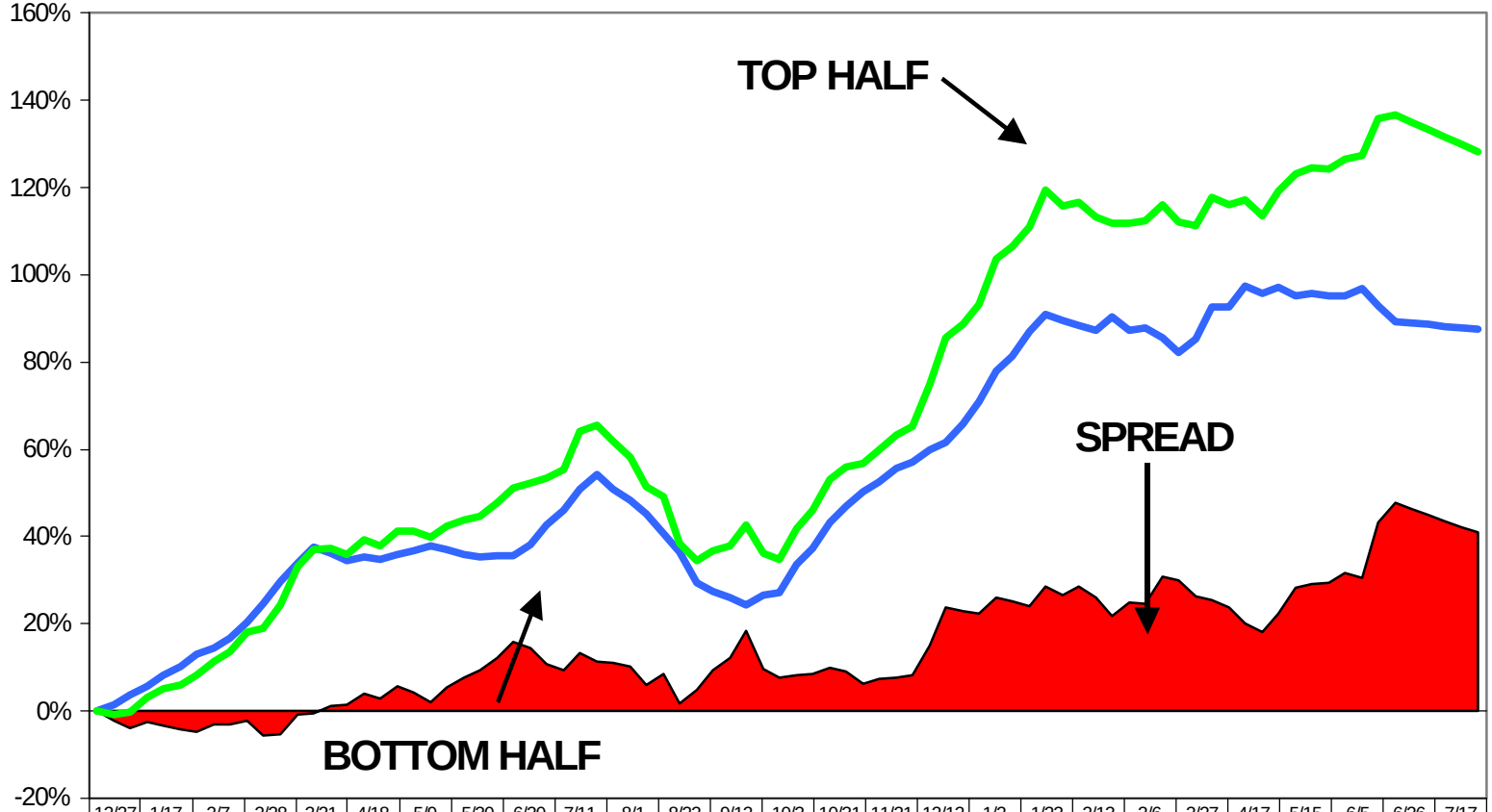
EcoValue '21 - Chemical Subset
1-96 to 12-98 Stock Performance
Top Half vs. Bottom Half



	J-96	F-96	A-96	M-96	J-96	A-96	S-96	O-96	D-96	J-97	F-97	A-97	M-97	J-97	A-97	S-97	O-97	D-97	J-98	F-98	A-98	M-98	J-98	A-98	S-98	O-98	D-98
Difference	-1.7%	-3.0%	1.6%	6.1%	9.5%	14.3%	15.1%	26.4%	32.7%	33.4%	34.9%	42.4%	40.6%	42.7%	43.0%	41.5%	39.7%	48.7%	46.8%	52.4%	67.1%	74.9%	73.6%	65.2%	63.9%	66.1%	71.5%
Top Tier Average	4.0%	6.3%	13.2%	15.0%	13.4%	13.2%	22.5%	27.8%	33.4%	34.6%	39.6%	42.7%	48.0%	56.8%	59.4%	60.9%	52.6%	63.2%	57.6%	72.5%	84.4%	86.0%	79.9%	48.3%	49.5%	61.3%	64.1%
Bottom Tier Average	5.7%	9.3%	11.5%	8.9%	3.9%	-1.0%	7.4%	1.3%	0.7%	1.2%	4.8%	0.3%	7.5%	14.1%	16.4%	19.4%	12.9%	14.6%	10.9%	20.1%	17.3%	11.1%	6.3%	-16.9	-14.4	-4.9%	-7.4%

EcoVALUE'21™ Sample Results: Telecom Sector

EcoValue '21 - Telecommunications Subset
1-98 to 7-99 Stock Performance
Top Half vs. Bottom Half



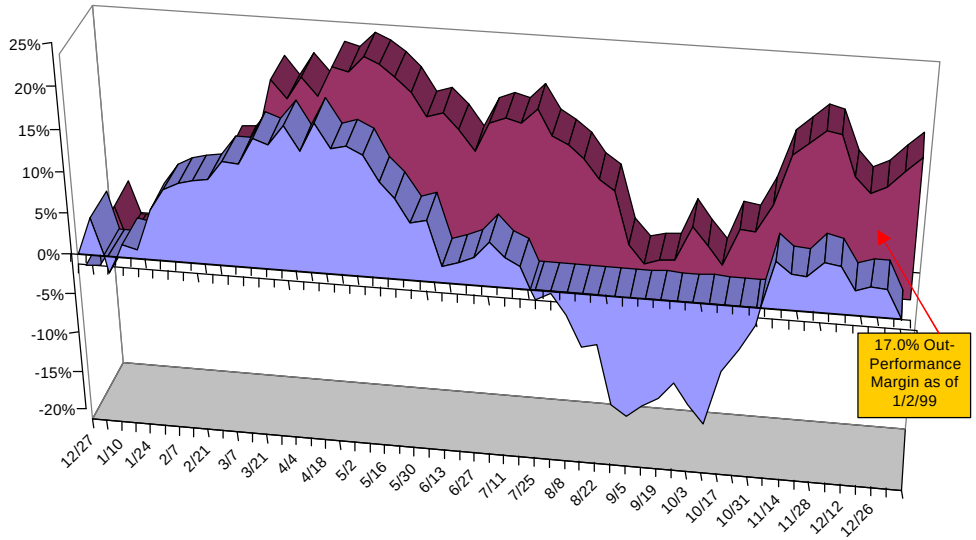
	12/27	1/17	2/7	2/28	3/21	4/18	5/9	5/30	6/20	7/11	8/1	8/22	9/12	10/3	10/31	11/21	12/12	1/2	1/23	2/13	3/6	3/27	4/17	5/15	6/5	6/26	7/17
Difference	0.0%	-2.7%	-4.8%	-2.3%	-0.8%	4.1%	4.4%	7.8%	15.6%	9.2%	11.1%	8.5%	9.5%	9.7%	9.9%	7.4%	15.0%	22.2%	23.8%	28.5%	24.8%	30.0%	23.5%	28.1%	31.5%	47.6%	43.5%
Top Half Average	0.0%	3.1%	8.2%	18.1%	33.0%	39.3%	41.2%	43.6%	51.1%	55.2%	61.9%	49.2%	36.7%	36.2%	53.1%	59.9%	74.9%	93.1%	110.8	116.7	111.9	112.2	116.0	123.2	126.6	136.8	131.7
Bottom Half Average	0.0%	5.7%	13.0%	20.3%	33.8%	35.2%	36.8%	35.8%	35.4%	46.0%	50.7%	40.6%	27.2%	26.5%	43.2%	52.5%	59.9%	70.9%	87.0%	88.2%	87.1%	82.2%	92.4%	95.2%	95.1%	89.1%	88.2%

EcoVALUE '21: Uncovering Hidden Value Across 10 Sectors

The "eco-efficiency premium" applies even across broadly diversified portfolios:

EcoValue '21

Top and Bottom Rated Companies - 1998 Total Return



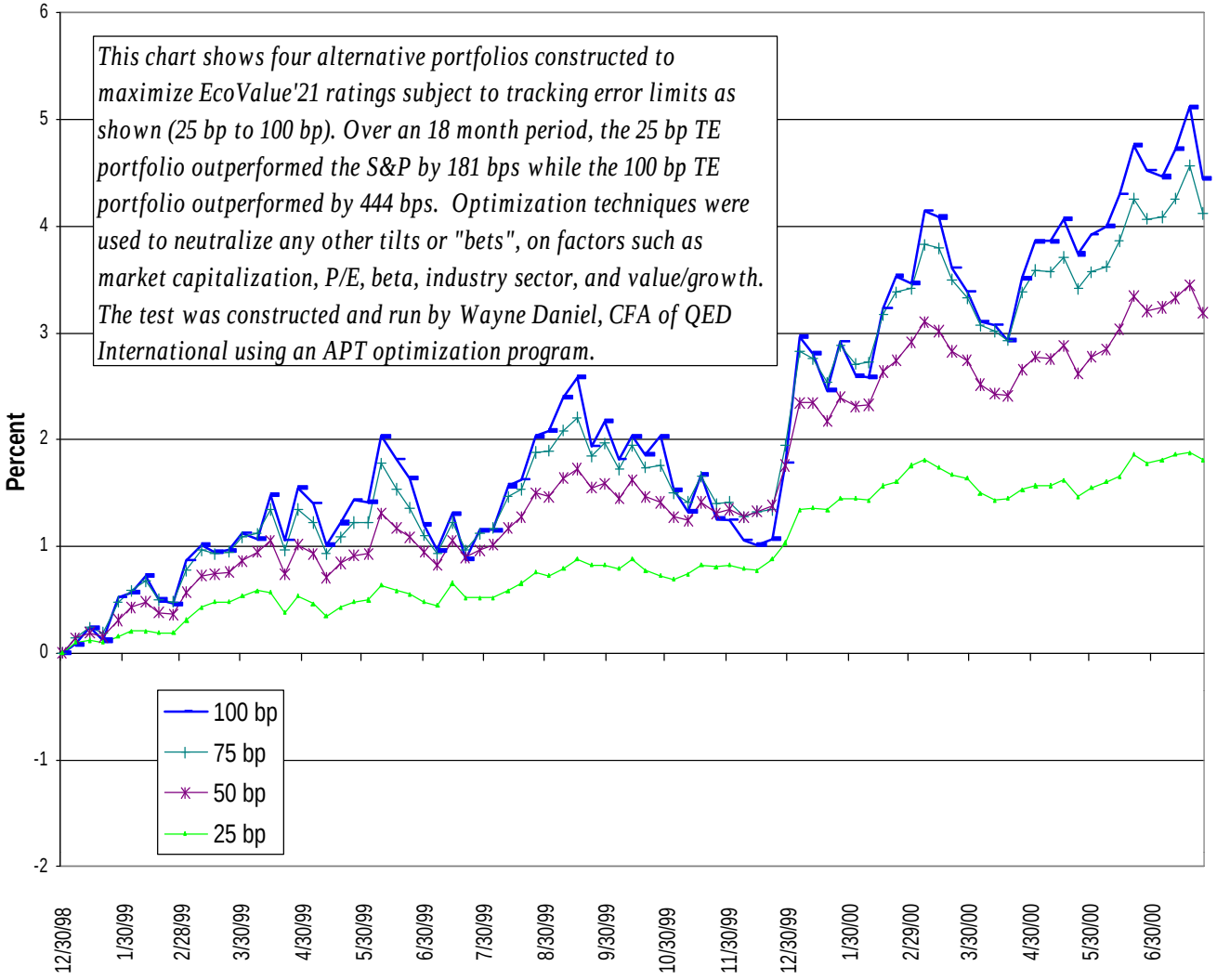
	1/3	1/17	1/24	2/7	2/21	2/28	3/14	3/28	4/4	4/18	5/2	5/9	5/23	6/6	6/20	6/27	7/11	7/25	8/1	8/15	8/29	9/5	9/19	10/3	10/10	10/24	11/7	11/14
Bottom Tier Average	1.9%	-0.8%	-6.4%	0.1%	-0.8%	0.4%	2.9%	5.3%	5.2%	6.2%	6.6%	4.6%	-0.5%	-1.5%	-7.5%	-6.0%	-7.4%	-12.7	-14.7	-15.7	-21.0	-20.7	-15.2	-17.6	-22.6	-18.5	-13.4	-16.9
Top Tier Average	1.8%	-0.8%	-4.6%	1.1%	3.8%	4.4%	5.7%	10.1%	11.7%	12.2%	17.1%	12.1%	11.1%	12.9%	9.4%	12.0%	8.7%	6.8%	6.4%	11.4%	5.9%	1%	15.3%	18.7%	16.7%	12.9%	18.0%	18.4%

Industry Category	Best/ Worst	Symbol	Company Name	EcoValue '21 Score	EcoValue '21 Rating	S&P Common Stock Rating
Aerospace/ Defense	Best	**BA**	**Boeing Co**	**1407**	**AAA**	**B+**
	Worst	GD	General Dynamics Corp	912	CCC	B
Chemical -- Specialty	Best	**ECL**	**Ecolab Inc**	**1585**	**AAA**	**B**
	Worst	IFF	Intl Flavors & Fragrances	802	CCC	A+
Chemicals	Best	**DOW**	**Dow Chemical**	**1510**	**AAA**	**B**
	Worst	FMC	FMC Corp	1015	CCC	B
Communication Equipment	Best	**NT**	**Northern Telecom Ltd**	**1794**	**AAA**	**B**
	Worst	HRS	Harris Corp	1073	CCC	B+
Electric Companies	Best	**PCG**	**Pacific Gas & Electric**	**1685**	**AAA**	
	Worst	FE	First Energy	645	CCC	B
Electronics -- Semicond	Best	**INTC**	**Intel Corp**	**1529**	**AAA**	**B+**
	Worst	MU	Micron Technology Inc	1033	CCC	B
Health Care	Best	**JNJ**	**Johnson & Johnson**	**1546**	**AAA**	**A+**
	Worst	MKG	Mallinckrodt Group Inc	681	CCC	B
Iron & Steel	Best	**IAD**	**Inland Steel Industries Inc**	**1365**	**AAA**	**B-**
	Worst	BS	Bethlehem Steel Corp	1015	CCC	B-
Paper, Forest Prods & Containers	Best	**GP**	**Georgia-Pacific Corp**	**1616**	**AAA**	**B**
	Worst	PCH	Potlatch Corp	925	CCC	B+
Petroleum	Best	**TX**	**Texaco Inc**	**1601**	**AAA**	**B**
	Worst	PZL	Pennzoil Co	1057	CCC	B-

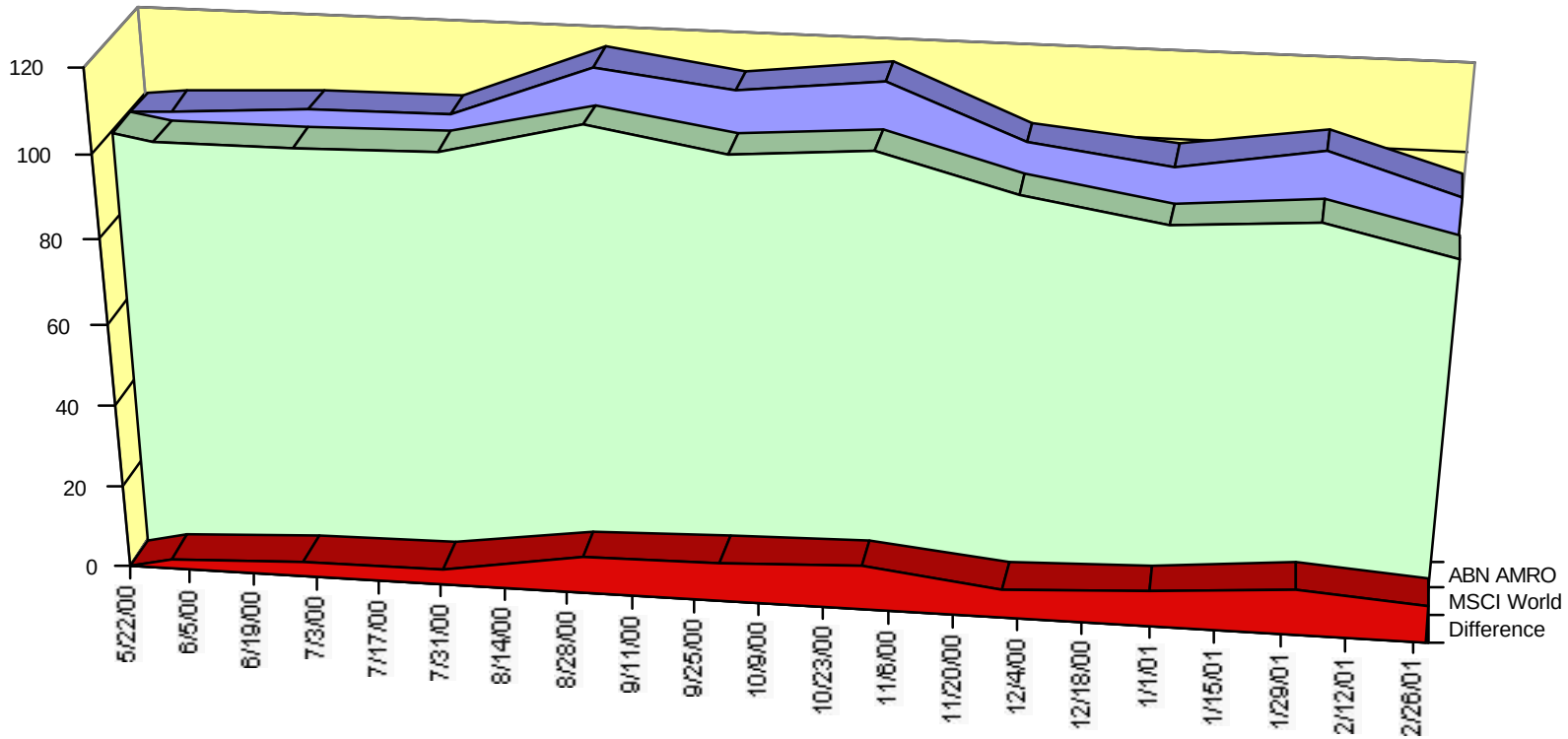
Despite their virtually identical ratings from Wall Street, these pairs of companies from 10 major industry sectors have radically different EcoValue '21 ratings - <u>and</u> investment performance.

EcoValue'21: Time Series Evaluation

Relative Performance Since 12/31/98
Vs. S&P 500



ABN AMRO - Innovest Fund Performance



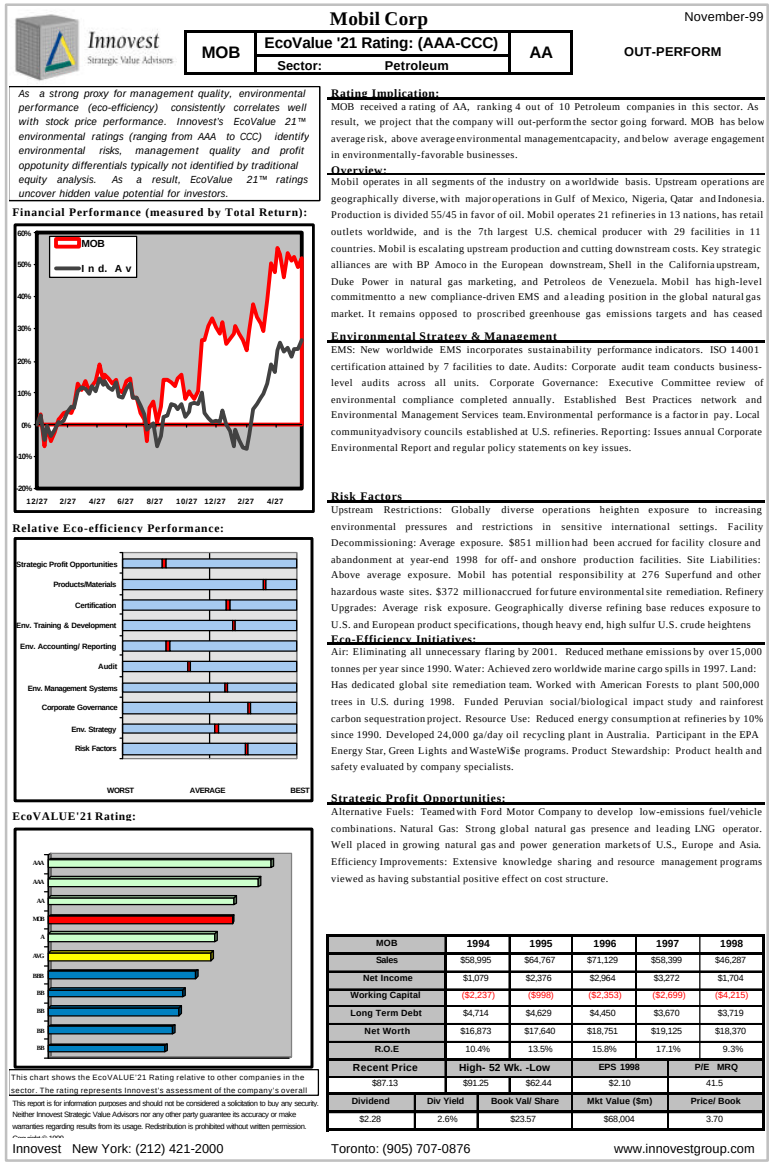
	22-May-00	31-May-00	30-Jun-00	31-Jul-00	31-Aug-00	30-Sep-00	31-Oct-00	30-Nov-00	31-Dec-00	31-Jan-01	28-Feb-01
Difference	0.0	2.1	3.8	3.8	8.7	9.4	10.6	7.1	8.4	11.2	8.9
MSCI World	100	98.6	98.6	99.2	106.8	101.7	104.3	95.4	90.1	92.5	85.7
ABN AMRO	100	100.7	102.4	103.0	115.5	111.2	114.9	102.4	98.6	103.7	94.6

- ***Best-in-Class Analysis and Ratings of Corporate Social Performance***
- ***Like Environmental, Social Issues Increasingly Impact Profitability***
- ***Financial and Strategic Focus***
- ***Focus Areas: Human Resources, International, Stakeholders, Product, Supply Chain, Strategy, Governance***
- ***Unbiased Analysis***
- ***Likely Indicator of Superior Management***

Innovest Services

- ***Company and Industry Sector Research and Reports***
- ***EcoValue'21™ and SustainableValue'21™ Ratings***
- ***Advisory Services***
- ***Custom Portfolio Analysis***
- ***Customized Products***
- ***Mellon Capital/Dreyfus Investment Management***

Innovest Research and EcoValue'21™ Ratings



Innovest
Strategic Value Advisors

Mobil Corp — November-99

MOB	EcoValue '21 Rating: (AAA-CCC)	AA
	Sector: Petroleum	

OUT-PERFORM

As a strong proxy for management quality, environmental performance (eco-efficiency) consistently correlates well with stock price performance. Innovest's EcoValue 21™ environmental ratings (ranging from AAA to CCC) identify environmental risks, management quality and profit oppotunity differentials typically not identified by traditional equity analysis. As a result, EcoValue 21™ ratings uncover hidden value potential for investors.

Financial Performance (measured by Total Return):

Relative Eco-efficiency Performance:

EcoVALUE'21 Rating:

This chart shows the EcoVALUE'21 Rating relative to other companies in the sector. The rating represents Innovest's assessment of the company's overall

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Rating Implication:
MOB received a rating of AA, ranking 4 out of 10 Petroleum companies in this sector. As result, we project that the company will out-perform the sector going forward. MOB has below average risk, above average environmental management capacity, and below average engagement in environmentally-favorable businesses.

Overview:
Mobil operates in all segments of the industry on a worldwide basis. Upstream operations are geographically diverse, with major operations in Gulf of Mexico, Nigeria, Qatar and Indonesia. Production is divided 55/45 in favor of oil. Mobil operates 21 refineries in 13 nations, has retail outlets worldwide, and is the 7th largest U.S. chemical producer with 29 facilities in 11 countries. Mobil is escalating upstream production and cutting downstream costs. Key strategic alliances are with BP Amoco in the European downstream, Shell in the California upstream, Duke Power in natural gas marketing, and Petroleos de Venezuela. Mobil has high-level commitment to a new compliance-driven EMS and a leading position in the global natural gas market. It remains opposed to proscribed greenhouse gas emissions targets and has ceased

Environmental Strategy & Management
EMS: New worldwide EMS incorporates sustainability performance indicators. ISO 14001 certification attained by 7 facilities to date. Audits: Corporate audit team conducts business-level audits across all units. Corporate Governance: Executive Committee review of environmental compliance completed annually. Established Best Practices network and Environmental Management Services team. Environmental performance is a factor in pay. Local community advisory councils established at U.S. refineries. Reporting: Issues annual Corporate Environmental Report and regular policy statements on key issues.

Risk Factors
Upstream Restrictions: Globally diverse operations heighten exposure to increasing environmental pressures and restrictions in sensitive international settings. Facility Decommissioning: Average exposure. $851 million had been accrued for facility closure and abandonment at year-end 1998 for off- and onshore production facilities. Site Liabilities: Above average exposure. Mobil has potential responsibility at 276 Superfund and other hazardous waste sites. $372 million accrued for future environmental site remediation. Refinery Upgrades: Average risk exposure. Geographically diverse refining base reduces exposure to U.S. and European product specifications, though heavy end, high sulfur U.S. crude heightens

Eco-Efficiency Initiatives:
Air: Eliminating all unnecessary flaring by 2001. Reduced methane emissions by over 15,000 tonnes per year since 1990. Water: Achieved zero worldwide marine cargo spills in 1997. Land: Has dedicated global site remediation team. Worked with American Forests to plant 500,000 trees in U.S. during 1998. Funded Peruvian social/biological impact study and rainforest carbon sequestration project. Resource Use: Reduced energy consumption at refineries by 10% since 1990. Developed 24,000 ga/day oil recycling plant in Australia. Participant in the EPA Energy Star, Green Lights and WasteWi$e programs. Product Stewardship: Product health and safety evaluated by company specialists.

Strategic Profit Opportunities:
Alternative Fuels: Teamed with Ford Motor Company to develop low-emissions fuel/vehicle combinations. Natural Gas: Strong global natural gas presence and leading LNG operator. Well placed in growing natural gas and power generation markets of U.S., Europe and Asia. Efficiency Improvements: Extensive knowledge sharing and resource management programs viewed as having substantial positive effect on cost structure.

MOB	1994	1995	1996	1997	1998
Sales	$58,995	$64,767	$71,129	$58,399	$46,287
Net Income	$1,079	$2,376	$2,964	$3,272	$1,704
Working Capital	($2,237)	($998)	($2,353)	($2,699)	($4,215)
Long Term Debt	$4,714	$4,629	$4,450	$3,670	$3,719
Net Worth	$16,873	$17,640	$18,751	$19,125	$18,370
R.O.E	10.4%	13.5%	15.8%	17.1%	9.3%

Recent Price	High- 52 Wk. -Low		EPS 1998	P/E MRQ
$87.13	$91.25	$62.44	$2.10	41.5

Dividend	Div Yield	Book Val/ Share	Mkt Value ($m)	Price/ Book
$2.28	2.6%	$23.57	$68,004	3.70

Innovest New York: (212) 421-2000 Toronto: (905) 707-0876 www.innovestgroup.com

The EcoValue '21 Company Profile provides a condensed analysis of environmentally-related risks, opportunities and management strategies.

Even more condensed is the EcoValue '21 Company Rating (AAA, AA…CCC). This rating can be used as a shortcut to determine the eco-efficiency and potential outperformance of an investment.

Customized Products

U.S. Equities:

- *Enhanced S&P 500 Index Approach*
- *Active, stock-picking fund strategy (40-60 stocks)*
- *Best-in-class sector fund strategies*
- *"Long-short" portfolios*

International Equities:

- *Enhanced Eurotop 300 Index Strategy*
- *Enhanced FT 100 Index Strategy*

Investment Strategies: Enhanced S&P 500 Index Approach

Mellon Capital/Dreyfus Investment Advisors

- ***Provide proprietary industry and company research which assesses***
  - ⇒***Industry sustainability dynamics***
  - ⇒***Resource use efficiency***
  - ⇒***Strategic corporate governance***

- ***Implementation of Innovest research***
  Portfolio construction and trading
  Risk and portfolio management

- ***The Portfolio is comprised of approximately 150 - 200 issues with overall characteristics similar to the S&P 500 Index***

Universe
S&P 500 Index

↓

Innovest
Strategic Value
Advisors

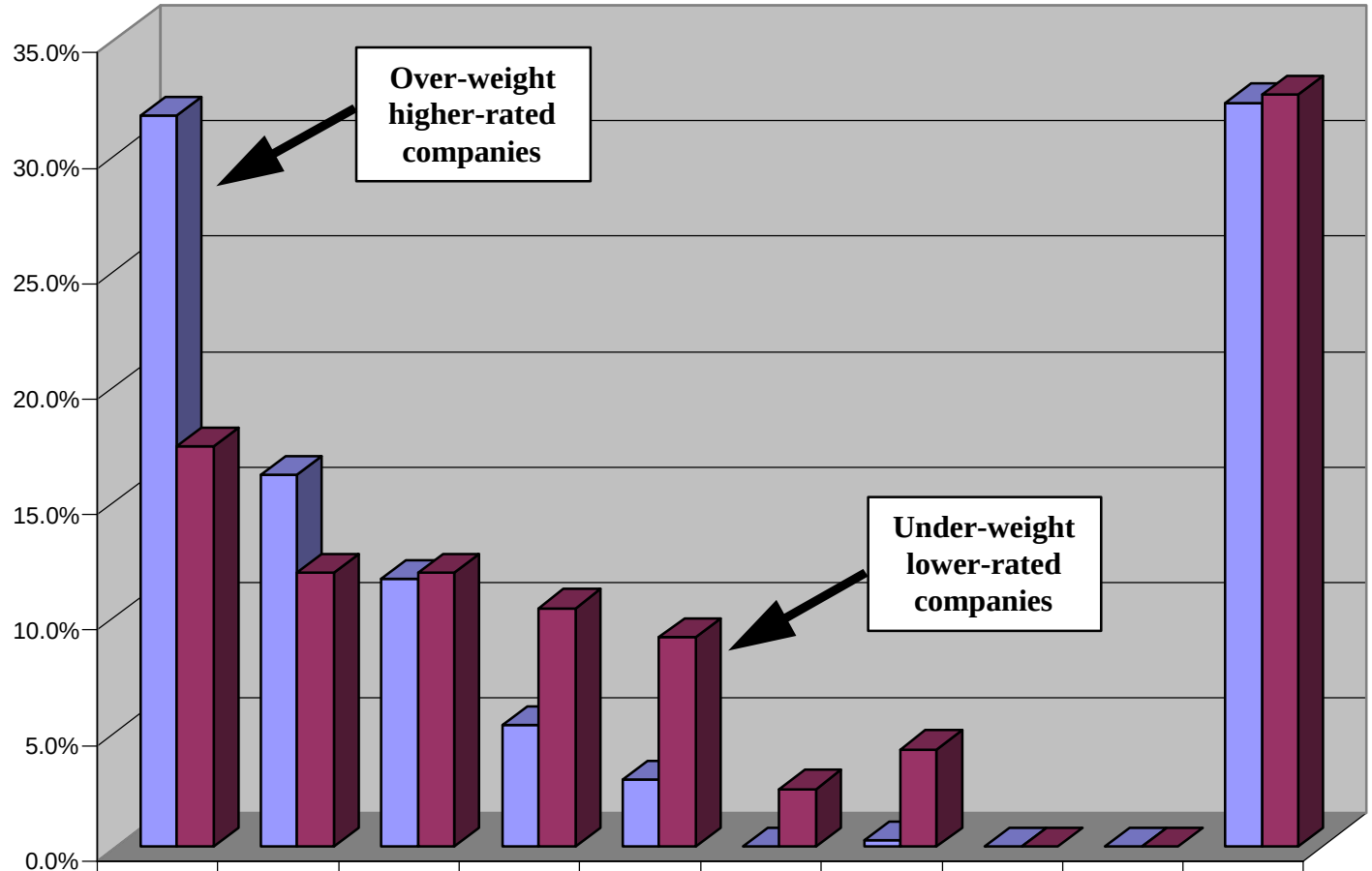
↓

Dreyfus &
Mellon Cap. Mgmt.

↓

Eco-Enhanced
Index Portfolio

Eco-Enhanced Portfolio Weights vs. S&P Weights



	AAA	AA	A	BBB	BB	B	CCC	CC	C	N/A
Eco-Enhanced Weights	31.7%	16.1%	11.6%	5.3%	2.9%	0.0%	0.3%	0.0%	0.0%	32.2%
S&P 500 Weights	17.3%	11.9%	11.9%	10.3%	9.1%	2.5%	4.2%	0.0%	0.0%	32.6%

The Electric Utility Industry

Resource Intensive Industries

- ✦ ***Large environmental impact***
- ✦ ***Drives increasing environmental pressures (regulations, market demands, public concerns, etc.)***
- ✦ ***Creates opportunities for environmentally-favorable products, services and technologies***
- ✦ ***Varying environmental management strategies (proactive vs. reactive)***
- ✦ ***Implies differentials in stock market performance (uncovering hidden value)***

The Electric Utility Industry

- ***In transition, high level of uncertainty***
- ***Deregulation leads to increased competition***
- ***Creates an industry-wide focus on cost reduction***
- ***Environmental risk concentrated in companies buying or building generation***
- ***Investor risk exposure is increasing as responsibility for environmental costs shifts from ratepayers to investors***

The Electric Utility Industry

- ***Resource intensive***
- ***Large environmental impact***
- ***71% of U.S. electricity generation is fossil fuel-based***
- ***67% of sulfur dioxide***
- ***36% of carbon dioxide***
- ***28% of nitrogen dioxide***
- ***33% of mercury*** ***(NRDC)***

The Electric Utility Industry

Air Regulations

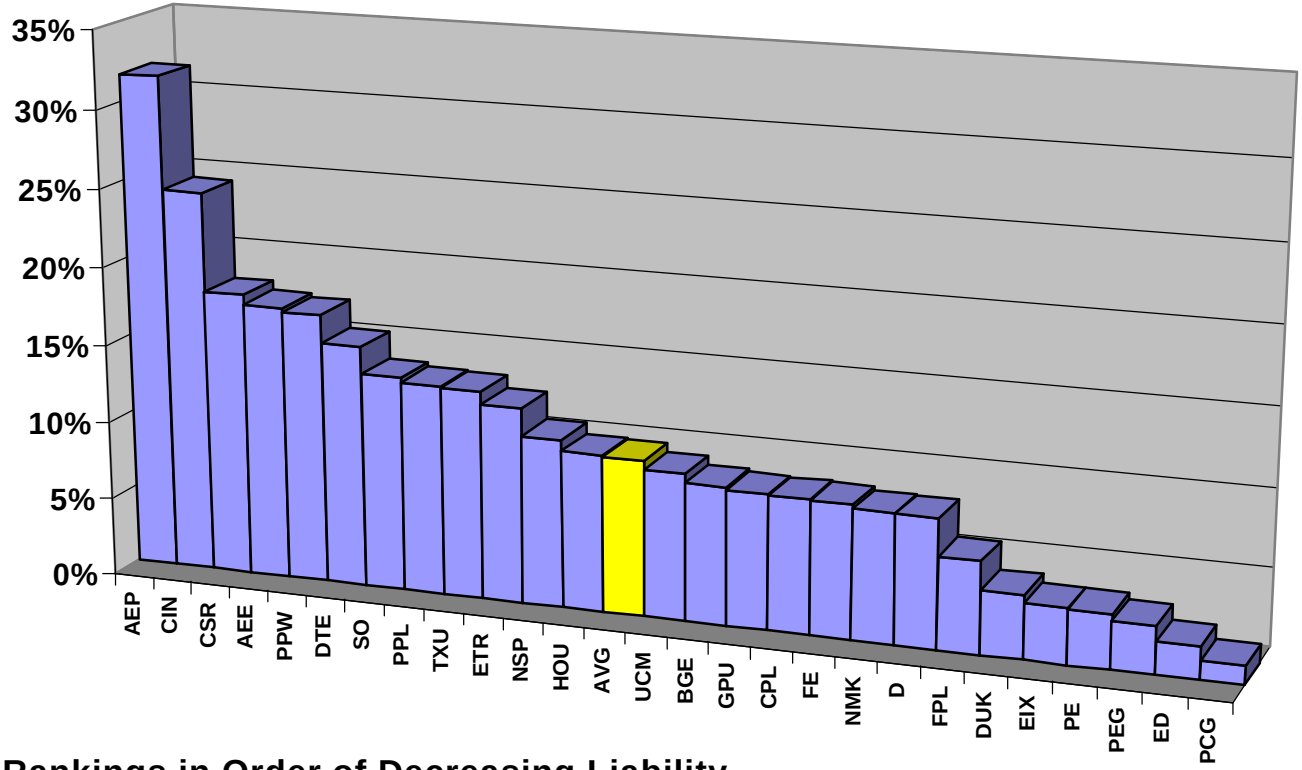
- ***Nitrogen Oxides: Ozone Standard, new capacity restrictions***
- ***September 1998, EPA issued 22 state SIP call***
- ***Requires 85% reduction of NOx from 1990 levels by 2003 in 22 Eastern States***
- ***60% of U.S. coal capacity is located in these states***
- ***Total cost to industry is about $5-6 billion***
- ***Will raise coal-fired power production costs by 20%***
- ***SIP Call upheld for 19 of 22 states***

The Electric Utility Industry

Air Regulations

- ***Sulfur Dioxide: PM 2.5 Standard, Haze, Acid Rain***
- ***Carbon Dioxide: Kyoto Protocol***
- ***Mercury: EPA studying***
- ***Potential cost: over $100 billion***
- ***Stranded Coal Plants***
- ***Most new capacity in U.S. is natural gas, cleaner and more efficient***
- ***Creating emission trading markets, SO2 - $2.6 billion, NOx market could reach $2 billion***

Potential Carbon Tax as a % of Stock Market Capitalization (a/o 8/98)



Utility Rankings in Order of Decreasing Liability
Assumes $20/Ton Carbon Tax

The Electric Utility Industry

Water Regulations

- ***Pending reauthorization of Clean Water Act, Resource Conservation and Recovery Act and Superfund Law***
- ***Section 316(b) of the CWA could require installation of cooling towers***
- ***Potential cost: over $70 billion***

The Electric Utility Industry

Land and Groundwater Regulations

- ***TRI reporting began in 1999 - Increased focus on toxic emissions***
- ***Reauthorization of CWA, RCRA, Superfund and Safe Water Drinking Act could increase costs***
- ***Increasing pressure to fully disclose environmental liabilities***

The Electric Utility Industry

Hydroelectric Relicensing

- ***Growing environmental restriction have reduced output by 5-10% since 1986***
- ***EPRI estimates current trends will reduce hydroelectric output by 10%***
- ***Lead to replacement power costs of $5 billion***
- ***Increase annual operating costs by $600 million***

The Electric Utility Industry

Nuclear

- ***Pressure to lower costs leads to running plants at closer to technical limits and increases potential for human error and component failure***
- ***Degradation of major components has reduced output by 5%, generated annual O&M costs of over $1 billion, and increased risk of radiation releases***
- ***DOE unable to accept high-level waste before 2010, Yucca Mountain concerns, waste accumulating on-site***
- ***Routine radiation releases within NRC approved levels***

The Electric Utility Industry

Environmentally-Driven Business Opportunities

- ✦ ***Buy power plants and make environmental upgrades***
- ✦ ***Energy Services: Subsidiaries marketing efficient electric technologies and conservation services***
- ✦ ***Renewable Energy: Solar and wind power market growing at over 25% per year***
- ✦ ***Distributed Generation: Fuel cells and microturbines have potential to gain significant market share***
- ✦ ***Green Power Marketing: customers paying 10-30% premium in California, market unclear***

The Electric Utility Industry

Barriers Falling

- ✦ *Proposals to decouple revenues from kWh sales*
- ✦ *System Benefits Charges*
- ✦ *Renewable Portfolio Standards*
- ✦ *Disclosure Requirements*
- ✦ *Growing consumer awareness that buying electricity is the highest environmental impact decision they make*
- ✦ *Many studies show most consumers will buy environmentally superior product if price and quality are the same, this benefits cleaner power suppliers*

The Electric Utility Industry

Management Strategies

- ***Rising global environmental concerns is causing increased integration of environmental issues into business strategy, scenario planning***

- ***Environmental Management System Certification, ISO 14000***

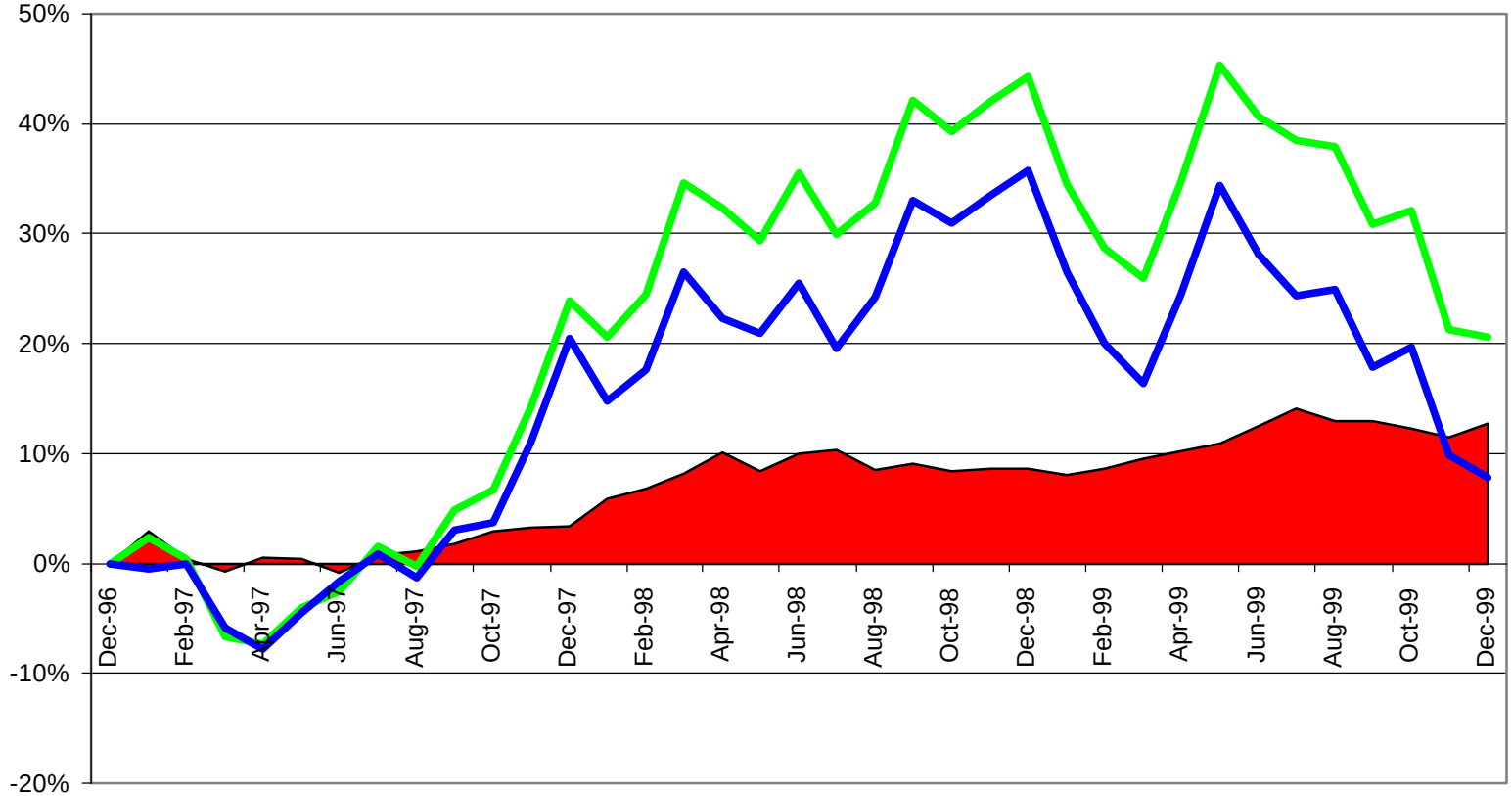
- ***CERES Membership***

- ***Increased environmental reporting in standardized formats: CERES, PERI, GRI***

- ***Eco-efficiency Initiatives: Waste reduction, recycling, materials accounting***

EcoVALUE'21™ Results: Sector Portfolio- 1997-1999

EcoValue'21 Electric Utilities Sector
3-Year Stock Performance
Top Half vs. Bottom Half



	Dec-96	Feb-97	Apr-97	Jul-97	Sep-97	Nov-97	Jan-98	Mar-98	May-98	Aug-98	Oct-98	Dec-98	Feb-99	Apr-99	Jun-99	Sep-99	Nov-99
Difference	0.0%	0.4%	0.5%	0.7%	1.8%	3.2%	5.9%	8.1%	8.4%	8.5%	8.3%	8.6%	8.6%	10.2%	12.5%	12.9%	11.5%
Top Half Average	0.0%	0.4%	-7.3%	1.6%	4.8%	14.3%	20.7%	34.6%	29.4%	32.8%	39.3%	44.3%	28.7%	34.7%	40.7%	30.8%	21.3%
Bottom Half Average	0.0%	0.0%	-7.8%	0.9%	3.1%	11.1%	14.8%	26.5%	21.0%	24.3%	30.9%	35.7%	20.1%	24.5%	28.2%	17.9%	9.8%

Conclusions:

- ***Out-performance differential will increase going forward as environmental regulations and concerns increase.***
- ***Environmental screening positions investors favorably for <u>future</u> competitive trends, risks, and opportunities.***
- ***The EcoValue'21 rating methodology identifies risks and opportunities overlooked by traditional investment analysis.***
- ***Positive financial community response: Innovest customers include Dreyfus, Scudder Kemper, Morgan Stanley, Bear Stearns, Chase Manhattan, Mellon Capital, ABN AMRO, CalPERS, Schroders, etc.***
- ***Screening for environmental performance will become a fiduciary responsibility of investment managers and advisors seeking to maximize returns for investors***

Communicating Sustainability:

- ***Focus on financially and strategically relevant issues.***
- ***Show how sustainability is integrated into business strategy.***
- ***Identify and quantify key sustainability impacts.***
- ***Show performance over time.***
- ***Show goals and progress toward them.***
- ***Avoid excessive greenwashing.***

EcoVALUE '21:

APPENDIX

Environmental Leaders Out-Perform Financially

A large number of studies from industry, government and academia support the validity of the concept that a portfolio of environmentally superior companies can out-perform an environmentally inferior portfolio.

Previous Third-Party Research (partial listing):

DATE	RESEARCHER	RESULT
June 1997	**Duke University** (470 companies)	400 bps; 5 yrs.
May 1997	**U.S. EPA** (330 companies)	270 bps; 5 yrs.
Nov. 1996	**ICF Kaiser** (330 companies)	500 bps. (hypothesized)
Sept. 1996	**Scudder/Storebrand** (100 companies)	500 bps; 5 yrs.
1994	**Winslow/Eaton Vance** (500 companies)	230 bps; 10 yrs. 500 bps; 5 yrs.

See Research Library at www.innovestgroup.com for additional studies