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• • A definition

 Corporate Social Responsibility (CSR) is a concept whereby firms commit to improve their environmental and/or social performance beyond legal obligations

My perspective

- An economist's view
 - Quite cynical on corporate behavior
- Based on the existing literature
 - As far as possible quantitative evidence
- Main focus on the environment
 - Social aspects are less important in real-world CSR practices

• • Milton Friedman, NYT Magazine (1970)

"The Social Responsibility of business is to increase its profits"

- Adam Smith's metaphor of the invisible hand
 - In a free market, an economic agent pursuing his own self-interest also promotes the good of society.
- In his view, CSR is dangerous as it constrains profit opportunities

• • The question

- Can it be profitable to improve corporate environmental/social performance beyond legal obligations?
- If the answer is positive, at least in the long term,
 - Friedman's criticism is irrelevant
- If the answer is negative,
 - CSR is probably not sustainable in the long run
 - Business people answer positively
 - May signal that CSR is just window-dressing or green washing

• • Outline

- 1. General studies
 - Seek to identify directly the relationship between env'l/social performance and financial performance
- 2. Analyses focusing on specific mechanisms
 - Productivity improvements
 - Green consumerism
 - Green shareholders
 - Others
- Conclusive comments

1 General studies

- Use data describing firms' characteristics, including financial and env'l/social performance
- Regression analysis
 - Estimation the coefficients α, β, γ in:

Profit =
$$\alpha + \beta ENV + \gamma Z + \epsilon$$

with ENV an indicator of env'l performance, Z a set of control variables (size, sector, etc.) and ε a random term

• • Results

Positive relationship

 Hart and Ahuja 1996; Feldman et al. 1996; Russo and Fouts 1997; Buts and Plattner 1999; Dowell et al. 2000; Konar and Cohen 2001; King and Lennox 2001; Thomas 2001; Hibiki 2003

Negative relationship

Cordeiro and Sarkis 1997; Wagner et al. 2002;

Non significant

McWilliams and Siegel 2000;

• • Comments

- Converging conclusions
 - A positive relationship between profits and environmental performance
- But methodological weaknesses
 - Unclear sense of causality
 - CSR increases profit
 - Or profitable firms can afford CSR investments
 - Omitted variables which could jointly affect env'l and financial performance
- The general problem is that the firm is considered as a "black box"
 - Specific mechanisms are not elucidated

Three market mechanisms relating CSR and profits

- 1. Abating pollution reduces production costs
 - "No regret" actions
- Consumers are willing to pay a premium for the environment
 - Increases margins
- Shareholders are willing to pay a premium for a share of green firms
 - Reduces the cost of capital

No regret actions

- Abating pollution may increase productivity
 - The so-called "Porter hypothesis"
 - Based on the idea that pollution is associated with the waste of resources, energy, etc.
- A debate particularly intense in energy policy between:
 - Engineers who stress that firms and consumers do not make optimal decisions
 - Ex: The apparent discount rate of consumers is around 25% when they buy durable equipments (Train, 1985)
 - Economists who claim there is no free lunch
 - "Irrational" behaviours signal hidden costs and constraints

Env'l performance and productivity

• Total Factor Productivity: $TFP = \frac{Y}{X_P + X_A}$

 $Y = \text{production output}; X_P = \text{productive inputs}; X_A = \text{abatement inputs}$

- Improving env'l performance leads to
 - 1. More abatement inputs ($\uparrow X_A$)
 - 2. More or less productive inputs (\downarrow or $\uparrow X_P$)

→ Overall effects on TFP?

• • Productivity studies

- In most countries, official statistics on pollution control expenditures (X_A) and TFP
- Possible to infer the impact of X_A on TFP growth using regression analysis:

TFPgrowth =
$$\alpha + \beta X_A + \gamma Z + \epsilon$$

with Z a vector of control variables

• • Results

	Sector	Impact of X _A on productivity
Gray, 1987	450 US manufacturing industries	30% of the TFP decline during the 70s
Gray & Shadbegian, 2003	US paper mills	negative (in particular for integrated paper mills)
Alpay et al. 2002	US food industries	Zero
Barbera & McConnell, 1990	5 US heavily polluting industries	negative

Abating pollution tends to reduce productivity

• • Limits

- X_A are survey data
 - Respondents neglect costs that are difficult to measure (e.g., time spent by managers)
 - Give more weight to "end-of-pipe" abatement as compared to process integrated changes
 - => The studies may under estimate abatement benefits
- Not possible to disentangle voluntary abatement through CSR from abatement induced by mandatory regulation

• • 2 Green consumerism

- Certain consumers are willing to pay a premium for greener products
 - More than 60% of French consumers claim they will do so in opinion polls
- In practice?

Ecolabeled products in France

Two official labels:



and

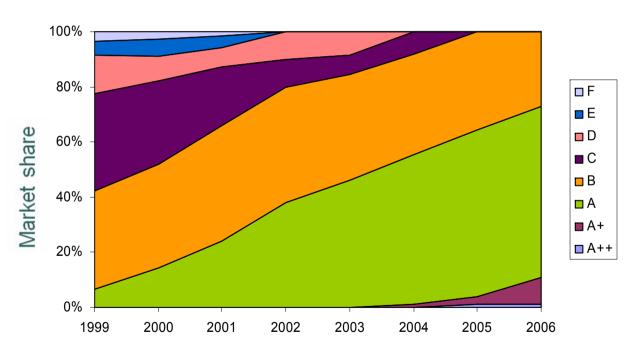
- A failure in terms of firms' participation
 - Only concern 5 product classes (paintings, detergents, toilet papers,..) whereas 37 classes are eligible
- A failure in terms of consumers' participation
 Market statististics in 2006:

	Annual turnover	Market share of ecolabelled products
Paintings and coats	600 M€	21,6%
Detergents	1762 M€	0.5%
Toilet papers	1150 M€	0,01%

Signaling energy consumption

Evolution of market shares of 8 energy classes (refrigerators 1999 – 2006)

EU energy labelling: F is the less efficient A++ the more efficient



Consumers strongly react to energy labels

Lessons

- Environmental quality frequently yields:
 - public benefits: reduced pollution
 - private benefits: reduced energy consumption, health benefits
- Evidence suggests that the willingness to pay for pure public environmental benefits is very limited (in France)
- Limit the impact of "green" consumerism to specific final markets
 - Durable goods
 - Food products

Socially Responsible Investment

- Environmentally or socially aware shareholders would accept a higher price for a share of a company with a CSR policy
 - A reduced cost of capital
- Potentially crucial as shareholders ultimately control corporations
- Ethical mutual funds represents 11% of savings under professional management in the US
 - 2.71 \$ trillion (www.socialinvest.org)

Portfolio analyses

Compare ethical funds with traditional funds

	Data set	Findings
Luther et al. 1992	15 ethical trusts from UK	Weak evidence that SRI > market indices
Hamilton et al. 1993	17 US SRI funds	No difference
Mallin et al. 1995	29 ethical funds and 29 non- ethical funds, UK, 86-93	Vary across specifications
White, 1996	97 firms listed on NYSE, 89-92	SRI > non SRI
Diltz, 1995	159 firms rated by the CEP	No difference
Sauer, 1997	400 firms from the Domini Social Index, 86-94	Negligible differences
Gregory et al., 1997	60 European funds	No difference
Guerard, 1997	1,300 equity stocks vs 950 SRI stocks	No difference
Edwards, 1998	51 environmental leading companies, UK, 92-93 (LSE)	SRI>non SRI in 31% of the cases

Portfolio analyses

	Data set	Findings
Goldreyer et al., 1999	49 ethical funds, 81-97	SRI > other funds
Statman, 2000	Firms from the Domini Social Index and S&P	CSR firms > other firms
Kreander et al. 2005	30 ethical funds vs 30 traditional funds	No difference
Schroeder, 2003	16 German and Swiss funds + 30 U.S. funds	No difference
Bauer et al., 2004	Canadian ethical funds vs traditional funds, 1994-2003	No difference
Bauer et al., 2005	103 German, UK and US ethical funds vs 4384 traditional funds	No difference

No clear-cut differences between ethical funds and the others

• • Other mechanisms?

- Attracting highly-motivated employees? Or motivating the internal staff?
- o Political benefits?
 - CSR may be costly. But less costly than what would happen should the firm does nothing.
 - Mandatory regulation
 - Boycotts or litigation by NGOs
- Only a theoretical literature
 - Baron; Nyborg & Brekke, 2005; Lyon Maxwell 2003;
 Glachant 2007.

Further empirical work is necessary

- ConclusionResearch is going on
 - Today, results are puzzling: Improving env'l performance seems to increase profits but
 - tends to reduce productivity
 - the Willingness To Pay of green shareholders or consumers is low
 - → We need to elucidate the mechanisms relating profits and CSR
 - My feeling on top research priorities
 - Labor issues
 - Test theories based the existence of political benefits for companies having CSR policy
 - Also need to reformulate the question Does CSR pay? → Where and when does CSR pay?

Thank you for your attention!