Why Try to Quantify the Unquantifiable?

Julie Hudson, Shirley Knott
Socially Responsible Investment

April 14, 2005

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Analyst certification and required disclosures begin on page 24

Please refer to our Q-Series Report: Corporate Social Responsibilities, Why Try to Quantify the Unquantifiable? 11th April 2005
Definitions

- SRI = Socially Responsible Investment
- CSR = Corporate Social Responsibility
UBS SRI Team: the first theme piece

♦ In response to client demand for more SRI research, we have formalized our efforts for the first time with the creation of a dedicated UBS team.

♦ This is not the first time for UBS to publish on SRI. Examples:
  — Consumer team: obesity
  — Utilities team and cement team: EU Emissions Trading Scheme; nuclear power.
  — US and French teams: corporate governance
Corporate social responsibility can be framed as the management of conflicts of interest between the many stakeholders in the firm – managers, owners, suppliers, the labour force, consumers, the government sector – and all those in any way affected by the activities of the firm with respect to societal, environmental, ethical and economic issues.

When conflicts of interest are allowed to play out without constraint, they may give rise to externalised costs, which is just another way of saying that costs may be unfairly distributed.
A potential corporate social liability is a potential obligation to make a future expenditure due to past or ongoing manufacturing or other commercial activity, which adversely affects any aspect of the environment, the economy, or society.

“A ‘potential corporate social liability’ differs from a ‘corporate social liability’ because an organisation may have an opportunity to prevent the liability from occurring by altering its own practices or adopting new practices in order to avoid or reduce adverse environmental, economic or social impacts”. (cf EPA)
Corporate social responsibility is about business risk:

Firms change their business models to compete.

- Utilities firms changing operating practices
- Consumer firms changing advertising practices
- Pharmaceuticals firms taking socially oriented pricing and patent decisions in developing countries

UBS analysts regularly write about them.
Identifying SRI issues

- What society thinks is important
  - Established frameworks such as the GRI (Global Reporting Initiative) are a useful pointer.

- How firms compete
  - UBS’s global sector research approach, rooted in the global sector research framework inaugurated by Tom Hill and the Global Sector Research team

- An analysis of the way social costs and benefits are distributed
  - Stakeholder balance sheet
Industry structure drives SRI/CSR issues

<table>
<thead>
<tr>
<th>Basic Materials</th>
<th>Monopolistic or oligopolistic supplier/owner of resource</th>
<th>Access rights/ownership of finite resources</th>
<th>Essential nature of product or service</th>
<th>Diffuse customer base</th>
<th>Diffuse supplier base</th>
<th>Diffuse Labour force</th>
<th>Relative wealth of customer subgroups</th>
<th>Relative wealth of supplier location</th>
<th>Relative wealth of labour force</th>
<th>Importance of technology to product differentiation</th>
<th>Asymmetry of information/Product complexity</th>
<th>Potential impact on diffuse community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer non-cyclical</td>
<td>AT TIMES</td>
<td>AT TIMES</td>
<td>Y</td>
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<td>Consumer Cyclical</td>
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<tr>
<td>Energy (Oil)</td>
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<tr>
<td>Financials</td>
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<td>Pharmaceuticals</td>
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<td>Industrial</td>
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<tr>
<td>Technology</td>
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<tr>
<td>Telecommunications</td>
<td>Y</td>
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<tr>
<td>Utilities</td>
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</tr>
</tbody>
</table>

How to use the table: consumer sector example

Necessity + fragmented customer base + large firms + product “complexity” = necessity for “social risk controls”.

Source: UBS
**Stakeholder balance sheet**

An example of a shift in costs between stakeholders.

<table>
<thead>
<tr>
<th>Climate Change Stakeholder Balance Sheet</th>
<th>No Carbon Tax</th>
<th>With Targeted Carbon Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stakeholder</strong></td>
<td><strong>Impact</strong></td>
<td><strong>Benefits</strong></td>
</tr>
<tr>
<td>Managers</td>
<td>Compensation is not adjusted for cost of carbon impacts</td>
<td>*****</td>
</tr>
<tr>
<td>Owners (shareholders)</td>
<td>Profit accruing to shareholders is higher by the unrecognised costs of carbon emissions</td>
<td>*****</td>
</tr>
<tr>
<td>Customers</td>
<td>Goods and services potentially at a lower price than with carbon offsets</td>
<td>*****</td>
</tr>
<tr>
<td>Suppliers</td>
<td>Goods and services supplied at lower cost, unadjusted for cost of carbon emissions</td>
<td>*****</td>
</tr>
<tr>
<td>Labour force</td>
<td>Compensation not adjusted for cost of carbon impacts</td>
<td>*****</td>
</tr>
<tr>
<td>Other firms with a policy of emission reduction</td>
<td>Competition effects</td>
<td></td>
</tr>
<tr>
<td>Government sector</td>
<td>Tax revenues not adjusted for carbon costs</td>
<td>*****</td>
</tr>
<tr>
<td>Consumers</td>
<td>Faced with a menu of products which does not include the choice of carbon friendly alternatives (opportunity cost). Given little opportunity to exercise choice with respect to &quot;bequests&quot; to future generations.</td>
<td>*****</td>
</tr>
<tr>
<td>Wider community - short term</td>
<td>Suffering the cost of particulate emissions accompanying carbon dioxide, such as health effects, aesthetic effects</td>
<td>*****</td>
</tr>
<tr>
<td>Environment - short term</td>
<td>Short run impacts of fuel consumption on environment</td>
<td>*****</td>
</tr>
<tr>
<td>Wider community - future generations</td>
<td>Effects of global warming</td>
<td>*****</td>
</tr>
<tr>
<td>Environment - future generations</td>
<td>Effects of global warming and other environmental damage</td>
<td>*****</td>
</tr>
<tr>
<td><strong>Total Impact</strong></td>
<td>*****</td>
<td></td>
</tr>
</tbody>
</table>

*Source: UBS*
From 13th Aug 2005, producers (manufacturers, distributors and sellers) will be responsible for financing the collection, treatment, recovery and disposal of Waste Electrical and Electronic Equipment. 

**Source: UBS**
CSR issues are value drivers

- A firm's enterprise value (EV) is the sum of the market value of all claims on the business, says the UBS Valuation and Accounting Group.
- Potential corporate social liabilities are just another claim on the business.
- They are therefore potential value-drivers, and they may compete with shareholders’ equity (also of course lenders, pension fund beneficiaries) as a claim on the business.
CSR and Equity Valuation

♦ Include CSR liabilities in value analysis
  — Present values – what discount rate?
  — Expected values – what probabilities?

♦ Ensure consistent treatment

♦ Lessons from existing liabilities
  — Pensions
  — Environmental obligations
## CSR: a source of claims on the business

<table>
<thead>
<tr>
<th>Calculated EV</th>
<th>Market (&quot;Observed&quot;) EV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes CSR effects</td>
<td>Includes CSR effects</td>
</tr>
<tr>
<td>Includes CSR effects</td>
<td>No gap between observed and calculated EV</td>
</tr>
<tr>
<td>Excludes CSR effects</td>
<td>Calculated EV needs to be adjusted</td>
</tr>
</tbody>
</table>

*Source: UBS*

It is impossible to know whether or not or to what extent the market is already discounting environmental and social issues in valuation. (UBS Valuation and Accounting Group).
# Potential CSR liabilities: potential claims

<table>
<thead>
<tr>
<th>Claims on the business</th>
<th>Rights (contractual agreement, tacit or legal)</th>
<th>NPV of enterprise cash flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>Net profit (mix of dividends and capital gain)</td>
<td></td>
</tr>
<tr>
<td>Debt</td>
<td>Interest</td>
<td></td>
</tr>
<tr>
<td>Off balance sheet pension fund liabilities</td>
<td>Pension rights</td>
<td></td>
</tr>
<tr>
<td>CSR liabilities</td>
<td>Cash or payment in kind</td>
<td>Source: UBS</td>
</tr>
</tbody>
</table>
Modelling
Suggested approach, cashflow perspective

♦ Project EV cash-flows as usual
  — CSR costs can affect margins over time, or EBITDA growth over time, or can be “one off” charges.
  — CSR-related investment (or “insurance”), in this model, can be an increase in fixed investment, depreciated over the appropriate period of time as usual.
  — Apply relevant discount rate to CSR related streams (WACC? Very low “social discount rate?)

♦ Sector examples pp 41-42
Construction and building materials-example

- If we assume a 5% increase in fixed asset investment to reduce the burning of fossil fuels (in order to reduce the number of ETS contracts purchased), and an equivalent increase in D&A, (all other things being equal) the market capitalisation of the sector falls by 4% in the model.

- If the investment in fuel efficiency should happen to translate to a 2% improvement in EBITDA in 2005E, we estimate the model market cap. of the sector is unchanged. If EBITDA improves by 5% in 2005E, the market cap. of the sector rises by 6% in the model.

- According to this analysis, investments in fuel efficiency can add economic value.

Source: UBS SRI Team
Assume a hypothetical situation, a large one-off charge to the sector in 30 years time, in respect of environmental damage from carbon emissions.

We assume that this write-off in nominal terms is about the same size as global sales for the sector today (about US$1.6bn).

If this potential US$1.6bn liability is discounted at today’s WACC over 30 years, all other things being equal we estimate the sector capitalisation falls by just 5.5% in the model.

Discounted at a much lower ‘social time preference rate’, half today’s WACC, the hypothetical liability results in a 33% fall in the sector capitalisation in the model.
Isn’t Money a Dirty Word?

- Putting an absolute monetary value on a clean environment, or an organisation’s indirect economic impacts, the quality of life, or life itself, may be regarded as unethical or nonsensical.

- There is the additional problem of the lack of reference markets for many of the possible environmental or societal costs, or economic externalities.

- Putting a ‘financial value’ on something with no definable absolute value is a way of controlling the conditions under which exchange is made.

- In our opinion, putting a price on something ‘priceless’ when the aim is to facilitate a mutually beneficial, orderly, and equitable reallocation of resources (or to prevent expropriation) need be neither unethical nor nonsensical.
A Caveat: Sometimes There Just Isn’t a “Value”

- Some things just can’t be valued.
- We do not subscribe to the view that action should only be taken by companies to avoid a “social cost” if it can be valued.
- Sometimes, it’s just a question of doing the right thing.
Finally…

- The key strength of the framework described in the report published today is that it can be used to capture
  - input from UBS sector analysts
  - Input from UBS valuation specialists

- .....in such a way as to understand CSR issues, and of course therefore companies and sectors, better.
What are the issues to focus on?

Our three-part framework suggests that key issues include:

- climate change
- regulatory change for hazardous substances and waste
- the use of advertising
- the impact of the arrival of new technology on industry structure
- human rights
- product responsibility
- respect for and risks to privacy
- bribery and corruption
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