IEA-IETA-EPRI
15th Annual Workshop on Greenhouse Gas Emission Trading

Industrial competitiveness: still at risk?

30th September 2015
CEO survey – summer 2015

Short-term concerns (tactical) vs. Long term concerns (strategic)

Climate change risks - What’s of most concern to CEOs?

- Government regulation: 56% of CEOs
- Energy price rise: 61% of CEOs

Climate change risks - What’s of less concern to CEOs?

- Raw materials shortage/cost: 49% of CEOs
- Supply chain disruption: 51% of CEOs

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Carbon Pricing

The Paris 2015 Climate Summit can prompt a sustained wave of business action and investment through carbon markets. In the past year, hundreds of governments and businesses have sounded a call for carbon pricing to stimulate transformative investments in climate action. The Paris Agreement should secure high-level support for carbon pricing, implemented via technical decisions on...
Sector & country analysis

• 4 sectors analysed
• Cost structure of a representative firm considered
• Analysed comparable competitor countries to understand different costs
• Company interviews
Carbon price on its own is unlikely to tip investment decisions. Other factors are ultimately more important.

Is carbon price a decision tipping factor?

- In all scenarios considered in our study, carbon price has not been a factor that could influence relative cost attractiveness.

- Interviewees agree that currently other factors driving them to stay.

- Carbon costs are relatively immaterial. But if other costs moves in favour of a country’s competitors, e.g. labour, then collectively it is more likely to influence investment decisions at the margins.

- Easy to comply carbon pricing scheme may help.

- Many of the country’s competitors also have carbon policies.

Weight on each factor, e.g. are there regulations?

Materiality of each factor e.g. how burdensome is the regulation?

Presence of alternatives e.g. would it be better elsewhere?
PwC’s ESCAPE index

- How might countries think about how they can ‘escape’ from their current position and move into a higher economic gear.
  - Escape stagnation
  - Escape the middle income trap
  - Escape the poverty trap
What’s measured in the ESCAPE index

20 variables
5% weight each
Normalised

Economic
1. GDP per capita, PPP
2. GDP per capita (previous 10 year CAGR %)
3. Annual inflation
4. General government gross debt
5. Adjusted trade openness
6. Total investment
7. Unemployment rate
8. Current account balance (% of GDP)

42 countries

Environmental
1. Access to an improved water source
2. CO2 emissions

10%

ESCAPE Index

Social
1. Life expectancy at birth
2. Average years of total schooling
3. GINI Index
4. Most people can be trusted (%)

20%

Political
1. Political stability
2. Control of corruption
3. Rule of law
4. Ease of doing business index

20%

Communication
1. Internet users
2. Mobile cellular suscriptions

10%
Findings from ESCAPE index

- Almost all major emerging markets have shown marked improvements in the Index since 2000.
- Countries in the CEE region show particularly strong rises from a low base.
- Saudi Arabia, Malaysia, China and Chile lead the way for the emerging markets and score higher than the US in 2012,
- The emerging economies average has continued to rise since 2007, while the advanced economies’ average has fallen back since the global financial crisis hit.
- Sweden tops the 2012 index followed by Switzerland and Singapore.
Competitiveness concerns & carbon pricing

• What proportion of your cost base is the carbon price (at $20), how trade exposed is the sector, how substitutable is the product?

• How will the competitiveness debate change with more widespread carbon pricing regulation?

• Given implicit and explicit pricing, can you address carbon price impacts in isolation of wider competitiveness issues?

• How do other social, technological, economic and governance factors affect competitiveness / attractiveness?
To find out more...

#Paris2015: http://www.pwc.co.uk/services/sustainability-climate-change/paris-2015.html

Low Carbon Economy Index: 12th October 2015
CEO Survey: http://download.pwc.com/gx/ceo-pulse/climatechange/index.html

Contacts:
Jonathan Grant: jonathan.grant@uk.pwc.com
Some questions for businesses that the ESCAPE index data could help to answer (or identify)

| Economic performance and stability | • What are the main macroeconomic risks a business may face e.g. high inflation, low growth, a high current account deficit leading to currency volatility?  
| • How open is a country to trade and investment? |
| Social progress and cohesion | • How skilled is the workforce and what implications will that have for productivity and training costs?  
| • Will the level of trust in a society affect how organisational structure should be designed?  
| • What approach will need to be taken when developing business contracts? |
| Communications technology | • How far are the internet and mobile phones the key channel to market?  
| • How easily can a country’s operations be integrated into a global supply chain? |
| Political, legal and regulatory institutions | • How stable is the political, legal and regulatory environment?  
| • How easy is it to establish and run a business?  
| • How favourable is the tax regime? |
| Environmental sustainability | • How could operating in a country affect a company’s reputation with environmental pressure groups? |