

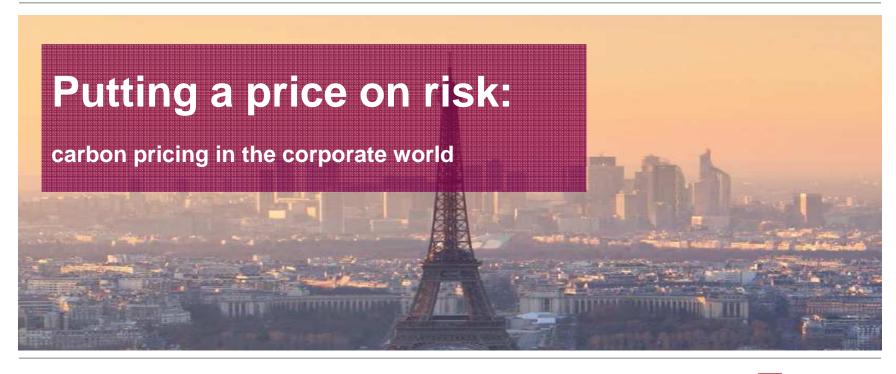
Putting a price on risk

Carbon pricing in the corporate world

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CDP







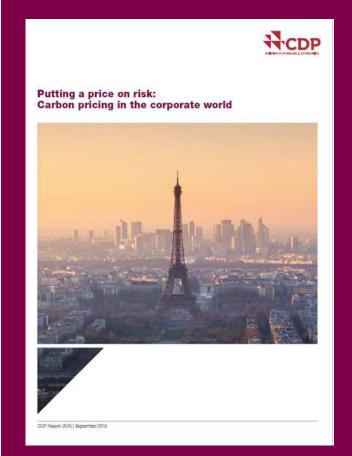
Carbon pricing initiatives almost doubled since 2012, jumping from 20 to 38

About 7 GtCO2e or 12% of global GHG emissions, a threefold increase over the past decade.

China and the U.S. two countries with largest volume GHG emissions covered

- ETS implemented or scheduled for implementation
- Carbon tax implemented or scheduled for implementation
- ETS or carbon tax under consideration
- ETS and carbon tax implemented or scheduled
- ## ETS implemented or scheduled, tax under consideration
- Carbon tax implemented or scheduled, ETS under consideration

Expansion of national and subnational jurisdictions MANITOB putting a price on carbon ALBERTA ONTARIO ICELAND REPUBLIC KAZAKHSTAN **BRITISH UKRAINE** OF KOREA COLUMBIA QUÉBEC WASHINGTON JAPAN **OREGON** CALIFORNIA **RGGI** TURKEY CHINA **MEXICO THAILAND** BRAZIL RIO DE JANEIRO SÃO PAULO NEW CHILE ZEALAND SOUTH AFRICA BEIJING TIANJIN HUBEI. SHENZHEN



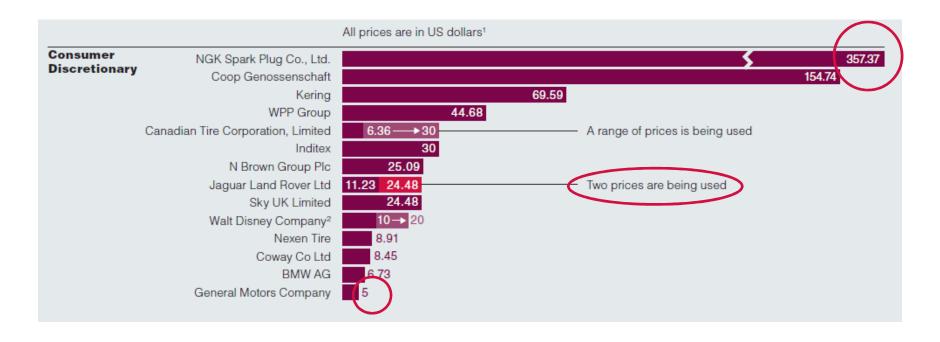
1000+ companies

are now disclosing to their key stakeholders that they currently price their carbon emissions – or intend to in the next two years – to try to meet their climate change risks.

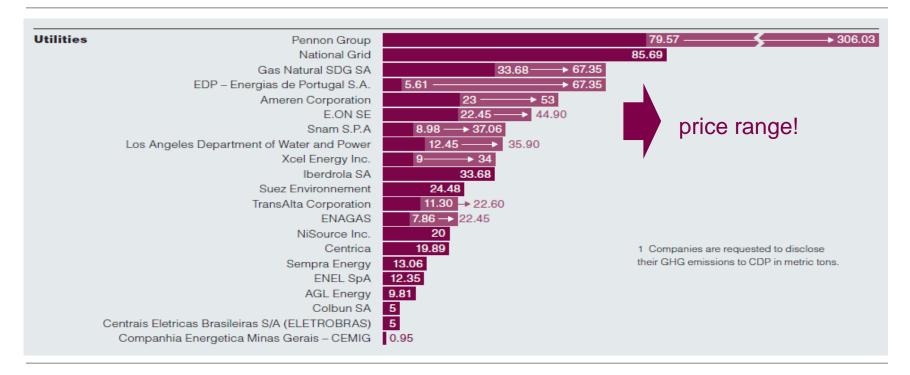
Results

- 437 companies use an internal price on carbon in 2015, up from 150 in 2014.
- 583 companies who are not currently using an internal price on carbon anticipate doing so in the next two years
- Drivers are incentivizing investments in clean energy and emissions reductions & risk mitigation
- Tenfold increase from Asian corporations
- High African emitters are also adopting the approach

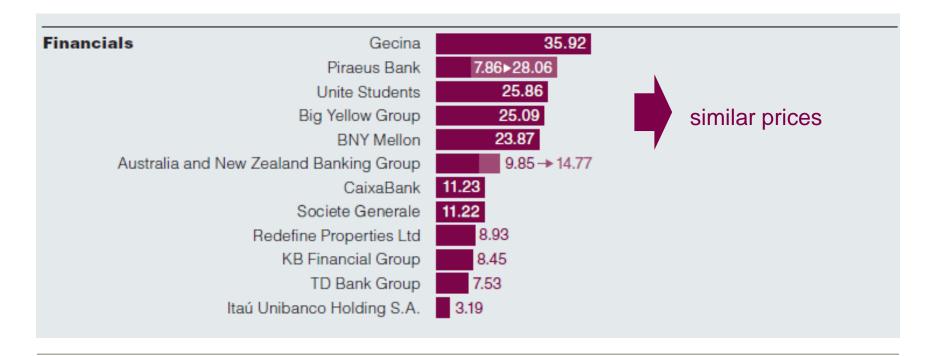














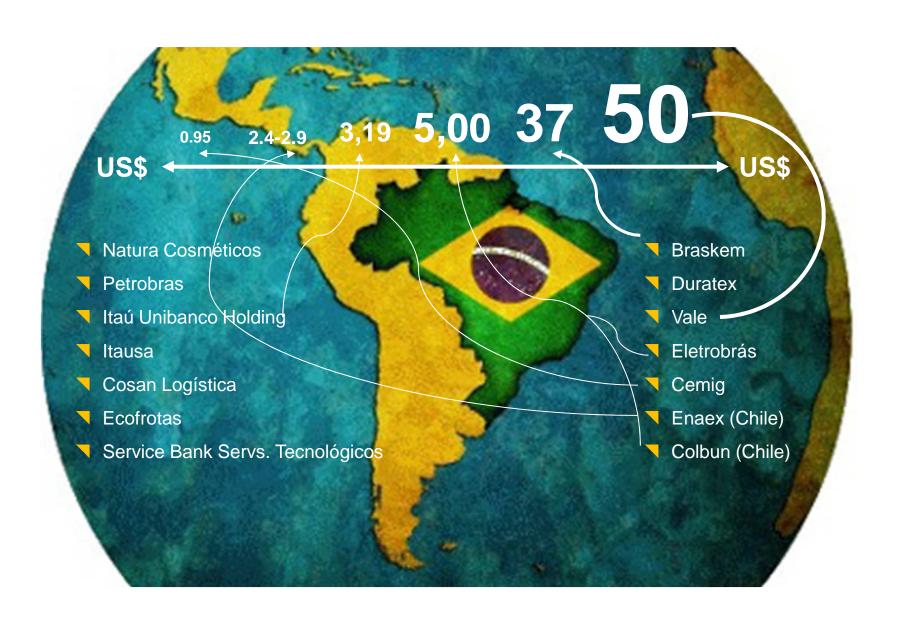
0,95 - 367 US\$

Is the price range between sectors and companies applying a price on carbon. Companies apply a fixed price per tCO²e, a price range or two different prices. Highest gap comes from the consumer discretionary industry with NJK from Japan (367US\$) and General Motors, US (5US\$).

The lowest price applied comes from Brazil.

Material sector has the highest participation rate for price applied.





Internal carbon price in the next 2 years





In their own words

Company excerpts from 2015 CDP disclosures

NATURA COSMETICOS SA

Brazil, Consumer Staples

Natura understand that every carbon project has its own peculiarity such as: benefits, costs and challenges to keep the project activities

ITAÚ UNIBANCO HOLDING S.A.

Brazil, Financials

We use a price estimate for carbon emissions in our company evaluation models as part of

VALE

Brazil, Materials

Considering Vale's Carbon Goal and the regulatory risks identified for our business (ii), in 2014, Vale developed its own MAC Curve (Marginal Abatement Cost Curve) to identify the best cost effective mitigation options and further select and prioritize projects below a threshold price...Vale chose a flat threshold price of carbon of US\$ 50,00 per tCO₂e over time as a proxy to carbon price in order to achieve Vale's carbon goal...

ITAUSA INVESTIMENTOS ITAU S.A.

Brazil, Financials

...uses the internal price of carbon to build

scenarios that predict the pricing in its activities and services and study what the company's rolev in a possible Cap™ Trade : Brazil. The creation of scenarios the carbon price of the Europea enables the company to better u what financial implications this v on its business from the standpand fees on products and service CO₁, penalties if reduction targe met and also how to manage thi or opportunity...One of the soen to analyse financial implications possible regulatory risks used p European carbon markets for ev equivalent emission. In this everfinancial estimate amounted to a million, considering the emission and 2 of the Company. In the exglobal agreements regarding GIwill become mandatory in 2020 has to reach the emission reducconvenience of a Cap & Trade in

BRASKEM S/A

Brazil, Materials

Aiming to benefit projects that present a reduction in GHG emissions, Braskem is testing

DURATEX S/A

Brazil, Materials

Duratex uses the Internal price of carbon to bulld scenarios that predict the pricing of carbon in its activities and services and also to study what the company's role would be in a possible Cap&Trade...One of the scenarios set up to analyse financial implications caused by possible regulatory risks used prices from the European carbon markets for every carbon equivalent emission. In this exercise, the financial estimate amounted to around R\$ 8.5 million, considering the emissions of scope 1 and 2 of the Company. In the expectation that global agreements regarding GHG emissions will become mandatory in 2020 and that Brazil has to reach the emission reduction targets, the convenience of a Cap & Trade in Brazil is under discussion.

Conclusion

- Part of focusing on their competitiveness, corporations are actively planning to account for carbon as a standard cost of doing business
- Climate change is now part of mainstream business decision-making and represents a bona-fide line item in the standard budget assumptions of successful companies.
- As expectation builds for governments to agree a global deal on limiting greenhouse gas (GHG) emissions in Paris this December, the CDP data shows how a growing number of businesses have been diligently preparing by incorporating a price on these emissions into their every day decision making.



CDP Report:

https://www.cdp.net/CDPResults/carbon-pricing-in-

the-corporate-world.pdf





