Investing in Climate, Investing in Growth

Anthony Cox
Deputy Director, Environment Directorate

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Climate change is a problem. But our attempts to fix it could be worse than useless.

Jack Mintz: The public backlash rises as the credibility of high-cost, low-carbon policies collapses.

The public won't be fooled by policies that result in higher taxes and costs, undermine our economy and do little to reduce emissions.

**To be clear: A Carbon Tax Will be an Economic Disaster**

New NERA Study Shows Economic Dangers of a Carbon Tax

**Trump: 6.5 Million Jobs Saved by Not Leaving Paris Accord**

To protect Canadian jobs, Trudeau backing carbon pricing

Slapping a carbon price on Canadian goods weakens the ability of Canadians to compete, and measures meant to mitigate the impact won't work.
Climate and growth were at the core of this year’s Nobel Prize for Economics.
Boosting economic growth does not mean locking the world into a high-emissions future, provided pro-growth reforms are combined with coherent climate policy and alignment of policies across the economy.
More ambitious climate policies will not harm growth

Strong climate policy ....

Change in GDP (%)

Scenario 66% 2°C

2050

1.4

Effect of net investment to decarbonise
More ambitious climate policies will not harm growth

... plus fiscal reform ....

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<thead>
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Effect of net investment to decarbonise
Additional fiscal initiative supportive of the transition
More ambitious climate policies will not harm growth

... plus structural reform ...

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<th>Structural reforms &amp; green innovation</th>
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<td>1.4</td>
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<td>3.1</td>
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More ambitious climate policies will not harm growth

... less the impact of higher energy prices ...
More ambitious climate policies will not harm growth

... will still deliver a net GDP increase in the long run ...
More ambitious climate policies will not harm growth

... and even more if the benefits of avoided damages are included.
Getting investment flowing: three components of a well-aligned policy framework for climate and growth
Infrastructure and finance hold the key
An ambitious 2°C scenario requires only a 10% increase in infrastructure investment...

Infrastructure investment (in USD trillion per year)

- Energy demand
- Telecoms
- Power and electricity T&D
- Water & sanitation
- Primary energy supply chain
- Transport

Reference case: 6.3 trillion
Scenario 66% 2°C: 6.9 trillion

USD 3.4 - 4.4 trillion: Current total infrastructure spending
Savings generated from reduced fossil fuel expenditures more than offset additional investment on infrastructure.
Savings generated from reduced fossil fuel expenditures more than offset additional investment on infrastructure.
By 2021, **only 1/3 of the renewable GWs** required by 2025 in a well below 2°C scenario may have been built.

**Planned capacity additions to 2021 verses an estimate of needed additions in WEO well below 2°C scenario**

- **Renewables**
- **Oil**
- **Nuclear**
- **Gas**
- **Coal**

*Additional capacities under construction*
By 2021, only 1/3 of the renewable GWs required by 2025 in a well below 2°C scenario may have been built.

Planned capacity additions to 2021 verses an estimate of needed additions in WEO well below 2°C scenario
What is going to drive investment and innovation?

Prices

Policies

Predictability

Image source: New Business Age
More than 60% of CO² emissions from energy use in G20 countries are not priced at all.

All CO₂ emissions from energy use

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<th>Price Range</th>
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<tr>
<td>&gt; 30€/tCO₂</td>
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<tr>
<td>&lt; 30€/tCO₂</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>Unpriced</td>
<td>62%</td>
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Prices measured on an Effective Carbon Rates basis. Effective carbon rates are the sum of carbon taxes, other specific taxes on energy use, and tradable emissions permit prices.
More than 60% of CO₂ emissions from energy use in G20 countries are not priced at all.

- All CO₂ emissions from energy use: 29,713 Gt CO₂
  - 9% > 30€/tCO₂
  - 29% < 30€/tCO₂
  - 62% Unpriced

- CO₂ emissions from energy use, excluding road transport fuel: 25,258 Gt CO₂
  - 4% > 30€/tCO₂
  - 26% < 30€/tCO₂
  - 70% Unpriced

*Prices measured on an Effective Carbon Rates basis.*

Effective carbon rates are the sum of carbon taxes, other specific taxes on energy use, and tradable emissions permit prices.
Financial and regulatory innovation reinforces technology

Wind and solar PV average LCOEs and auction results by commissioning date

Source: IEA
Acceleration of the green bond market

- Diversification of players and countries
- Emergence of “sovereign” green bonds
- Proliferation of standards and guidelines

Source: SEB analysis based on Bloomberg and SEB data
Taking steps towards a financial system that **fully accounts for climate factors**

- Climate disclosure schemes
- Long-term reliable information on climate risks
- Enhance scenario analysis tools
- Re-examine prudential and financial regulations
- Bridging capacity on climate change and financial markets
Carbon entanglement is a challenge for climate policy

Rents from extractive resources (oil, natural gas and coal) in billion USD

- 2001-2005: 485 b$
- 2006-2010: 1020 b$
- 2011-2015: 1130 b$

Carbon entanglement is a challenge for climate policy

Rents from extractive resources (oil, natural gas and coal) in billion USD

- 2001-2005: 485 b$ (1.5% of GDP)
- 2006-2010: 1020 b$
- 2011-2015: 1130 b$

Carbon entanglement is a challenge for climate policy.

Rents from extractive resources (oil, natural gas and coal) in billion USD

- **2001-2005**: 485 b$, 1.5% of GDP
- **2006-2010**: 1020 b$, 6.8% of total government revenue
- **2011-2015**: 1130 b$, 6.8% of total government revenue

**Sources:** IMF Worldwide Government Revenue Database and World Bank Natural Resource Rents database.
Carbon entanglement is a challenge for climate policy

Rents from extractive resources (oil, natural gas and coal) in billion USD

Financing Climate Futures
RETHINKING INFRASTRUCTURE
Six transformative areas to align financial flows with low-emission, resilient infrastructure

- **BUDGET**: Disentangle public budgets from fossil fuel revenues
- **RESET**: Reset the financial system in line with long-term climate risks and opportunities
- **INNOVATE**: Unleash innovation in technologies, institutions and business models
- **RETHINK**: Rethink development finance for climate
- **PLAN**: Plan infrastructure for a low-emission and resilient future
- **EMPOWER**: Build low-emission and resilient urban societies
The full report and further information on *Investing in Climate, Investing in Growth* can be found at

http://oe.cd/G20climate