



**High Level Forum
Globalization and Global Crisis:
The Role of Official Statistics**

Monday, 23 February 2009

ECOSOC Chamber

3:00 - 6:00 pm

**Globalization and Global Crisis:
Some issues on *Climate Change***

Øystein Olsen

Director General, Statistics Norway

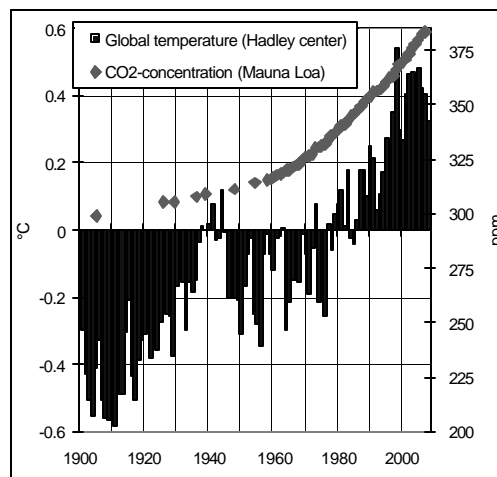
High Level Forum Globalization and Global Crisis: Some issues on *Climate Change*

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What do we “know”?

- With almost certainty:
 - Due to man made emissions, the temperature has increased with 0.8 degrees and will continue to increase
- With some uncertainty:
 - If GHG emissions go on unchecked, temperature will likely increase by between 1,1 to 6,3 degrees
- With a lot of uncertainty
 - What are the global costs of temperature increase?

- The concentration of CO₂ and mean global temperature:



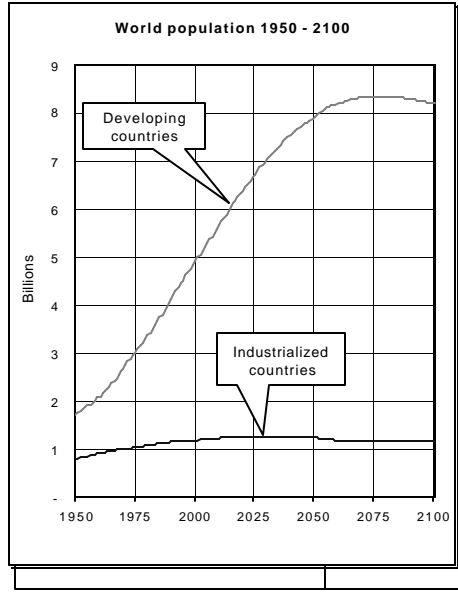
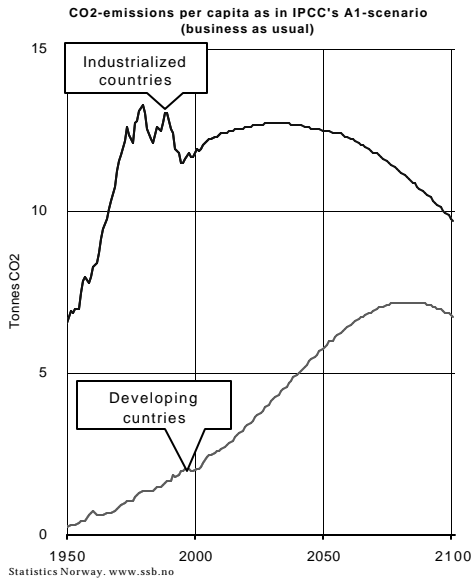
Climate and the financial crisis – any connection?

- **Globalization** – we have reaped the benefits
 - are we now paying the price?
- Short term (FC) versus long term (CC)
 - The focus has already changed....?
- Can the financial crisis initiate a faster restructuring?
 - New investments should internalize (future) costs of emissions

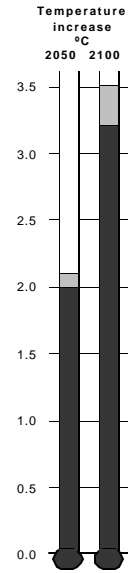
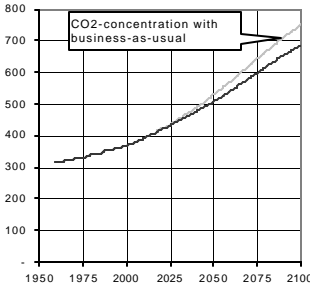
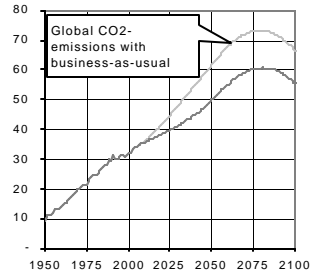
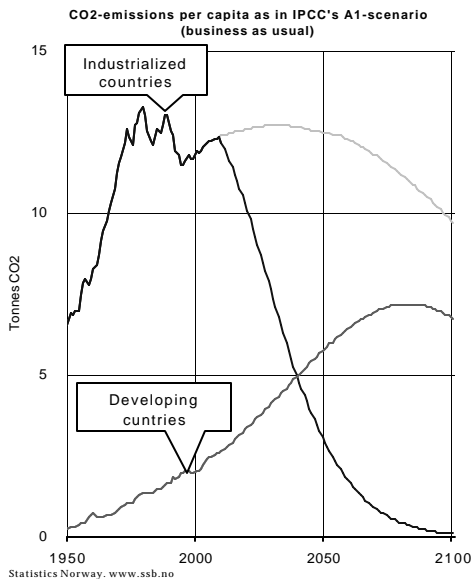
Two fundamental questions

- 1) Are market instruments sufficient to hedge against catastrophic events?
 - Weitzman (2008)
- 2) Can a stabilization of global CO₂ emissions be combined with developing countries catching up?

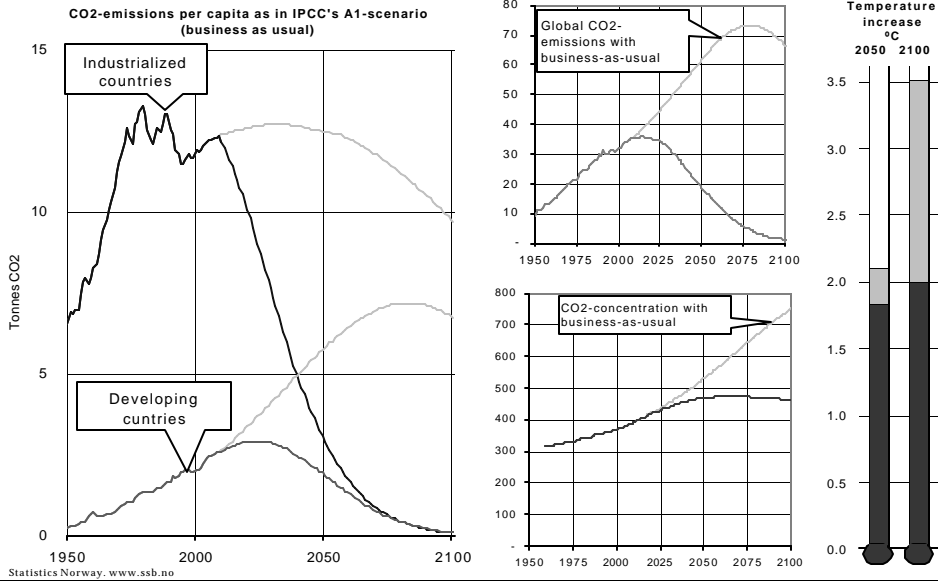
Fundamental drivers



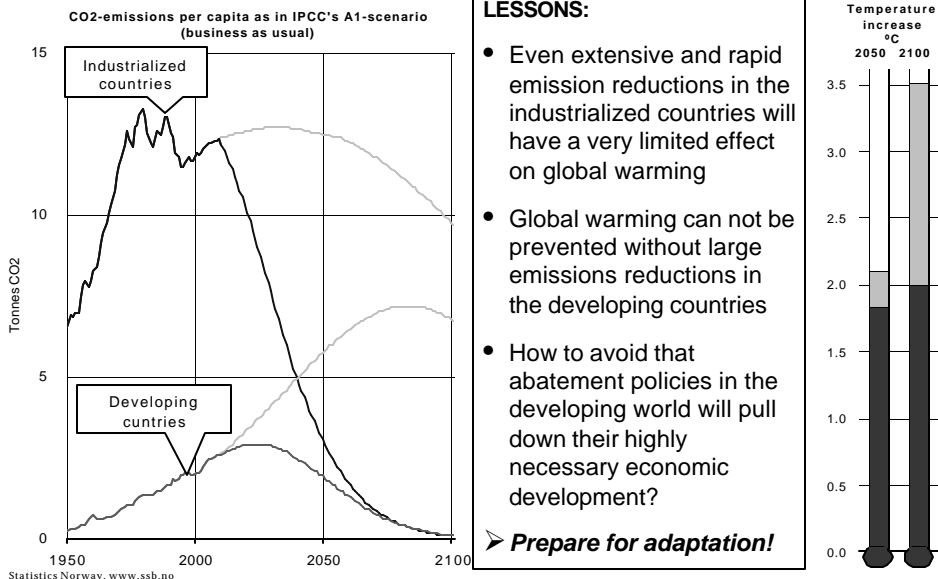
Industrialized countries reduce emissions



Developing countries follow



Developing countries follow



What needs to be done?

- Broad international environmental agreements, to control global emissions
- Systems for monitoring compliance
- What will be the role of official statistics?

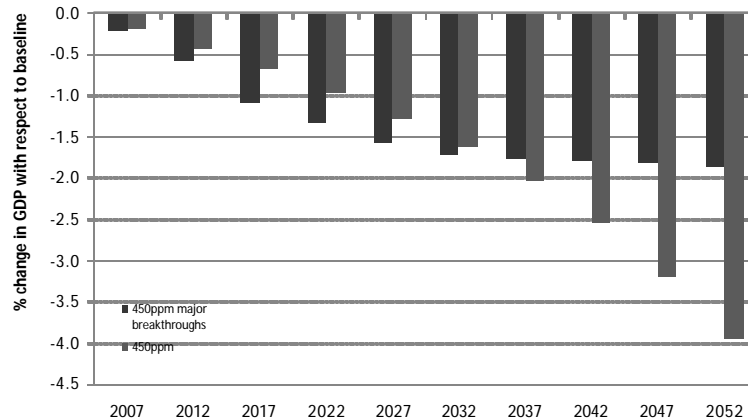
Central elements of Kyoto II

- Eliminating existing energy subsidies
 - Costs efficient policy instruments applied across countries, sectors and gases
 - Innovation and adoption of climate-friendly technologies, to lower *future* mitigations costs
 - Pricing carbon may foster major technological breakthroughs
- Crucial question: will “markets” do the job?



Pricing carbon is needed for major technological breakthroughs

GDP costs and CO₂ price levels with and without breakthrough technologies (450ppm CO₂ concentration stabilisation scenario)



Source: WITCH model simulations.(OECD)

Can markets do the job?

- Pricing carbon alone may not induce sufficiently large (incremental) energy efficiency gains
 - uncertainty may discourage investors...
 - ..and market failures undermining R&D call for specific R&D policies
- A global R&D policy is needed
 - Many unresolved areas; transportation sector, reliance of fossil fuels for energy production etc
- Can investment decisions be based on current prices on emission permits?
 - *Necessary to establish a credible long term expected price path*

Thank You for your attention!