

China-Australia Carbon Market Design Expert Workshop

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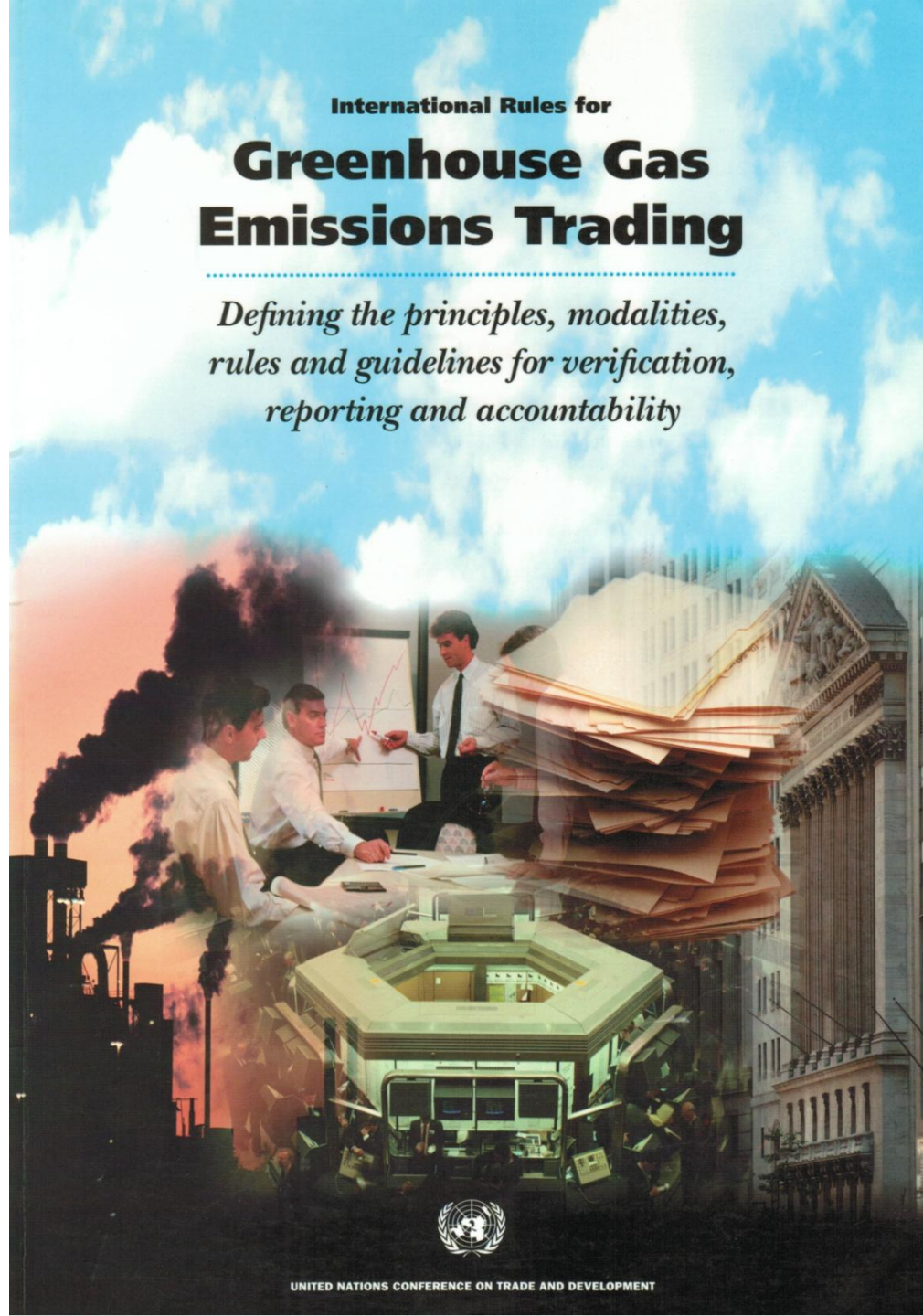
Fudan University, Shanghai, China

International Rules for Greenhouse Gas Emissions Trading (UNCTAD, 1998)

- **Michael Grubb**, United Kingdom
- **Axel Michaelowa**, Germany
- **Byron Swift**, United States
- **Tom Tietenberg**, United States
- **ZhongXiang Zhang**, The Netherlands

International Rules for
**Greenhouse Gas
Emissions Trading**

*Defining the principles, modalities,
rules and guidelines for verification,
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UNITED NATIONS
New York and Geneva, 1999



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Ways to improve the design of the EU emissions trading scheme (2004)

U.S. Side

- **Wallace Oates**,
Fellow, NAS;
University of
Maryland and RFF
- **Ian Parry**, Resources
for the Future
- **ZhongXiang Zhang**,
East-West Center

EU side

- **Peter Bohm**, Univ. of
Stockholm
- **Frank Convery**,
President, EAERE
- **David Pearce**, The
First Recipient of the
European Lifetime
Achievement Award in
Environmental Economics

Carbon market and the role of China: What economic models tell us?

The CDM Market Study for Asian Development Bank

- Zhang, Z.X. (1999), *Estimating the Size of the Potential Market for All Three Flexibility Mechanisms under the Kyoto Protocol*, Report to the ADB, November.
 - About 60% of the total CDM flows in 2010 go to China
 - NGOs dubbed CDM China Development Mechanism 中国发展机制
 - Zhang, Z.X. (2000), Estimating the Size of the Potential Market for the Kyoto Flexibility Mechanisms, *Weltwirtschaftliches Archiv - Review of World Economics*, Vol. 136, No. 3, pp. 491-521.
- Zhang, Z.X. (2001/2004), Meeting the Kyoto Targets: The Importance of Developing Country Participation, *Journal of Policy Modeling*, Vol. 26, No. 1, pp. 3-19.

But

- About 60% of the total CDM flows in 2010 go to China
 - **China was a slow starter of CDM projects, left far behind and able to catch up the front runner until late 2005.**
 - In percentage terms, CDM market since 2008 evolves very much in line with what my economic study projected.
- Zhang, Z.X. (2007), Why Has China not Embraced a Global Cap-and-Trade Regime?, *Climate Policy*, Vol. 7, No. 2, pp. 166-170.
 - Zhang, Z.X. (2003), Reconstructing Climate Policy: How Best to Engage China and Other Major Emitting Countries?. The Plenary Presentation chaired by Prof. Robert Keohane (President, American Political Science Association) at the International Conference on Reconstructing Climate Policy: Moving Beyond the Kyoto Impasse, Duke University, 2 May 2003, with Dr. Richard Morgenstern (former Deputy Administrator, U.S. EPA) as the discussant for my presentation.

Market-based climate policy instruments

- **Environmental/carbon taxes**
 - Points of imposition
 - Impacts on the distribution of income
 - Revenue-recycling and tax-interaction effects in the second-best setting (Oates, Bovenberg, Goulder, Parry)
 - Double dividend (Pearce, Goulder)
 - Competitiveness/leakage concerns
- **CDM/JI**
- **Emissions trading**
 - Which pollutants to be included?
 - Scope of regime
 - Point of regulation
 - How to allocate permits?
 - If auctioned, how to use revenues?
 - Mechanisms to address supply-demand imbalance and the resulting price uncertainty
 - Banking and borrowing
 - Market power
 - The role of financial institutions

Contact with UNSW dated back to

- Zhang, Z.X., Ph.D. Dissertation on Economics: *Integrated Economy-Energy-Environment Policy Analysis: A Case Study for the People's Republic of China*, November 1995, 330 pp.
- **Review** - “This study represents the first systematic and comprehensive attempt to provide a rigorous analysis of the economic implications of carbon abatement for the Chinese economy in the light of the economics of climate change, a pathbreaking entry into one of the most complicated aspects of contemporary energy/environmental economics”
Energy Policy, SSCI, Vol. 25, No. 2.
- **Tony Owen, Professor at UNSW & President, International Association for Energy Economics**