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Preliminary analysis / proposal for a Sectoral Agreement: The case of the Chinese cement sector

C.I.R.E.D. UNITÉ MIXTE DE RECHERCHE EHESS ET CNRS – UMR 8568

Global Cement Production 1970-2050

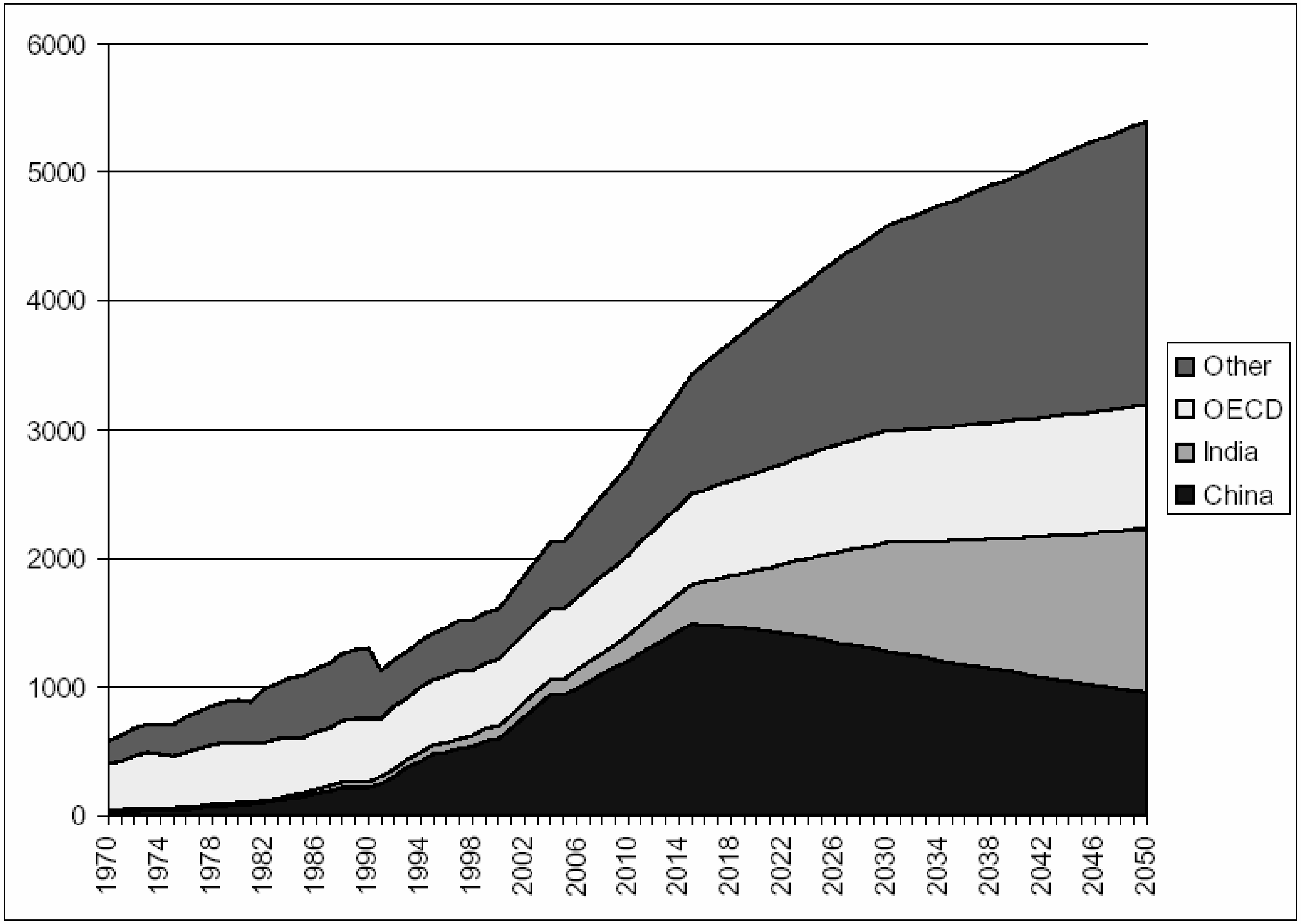
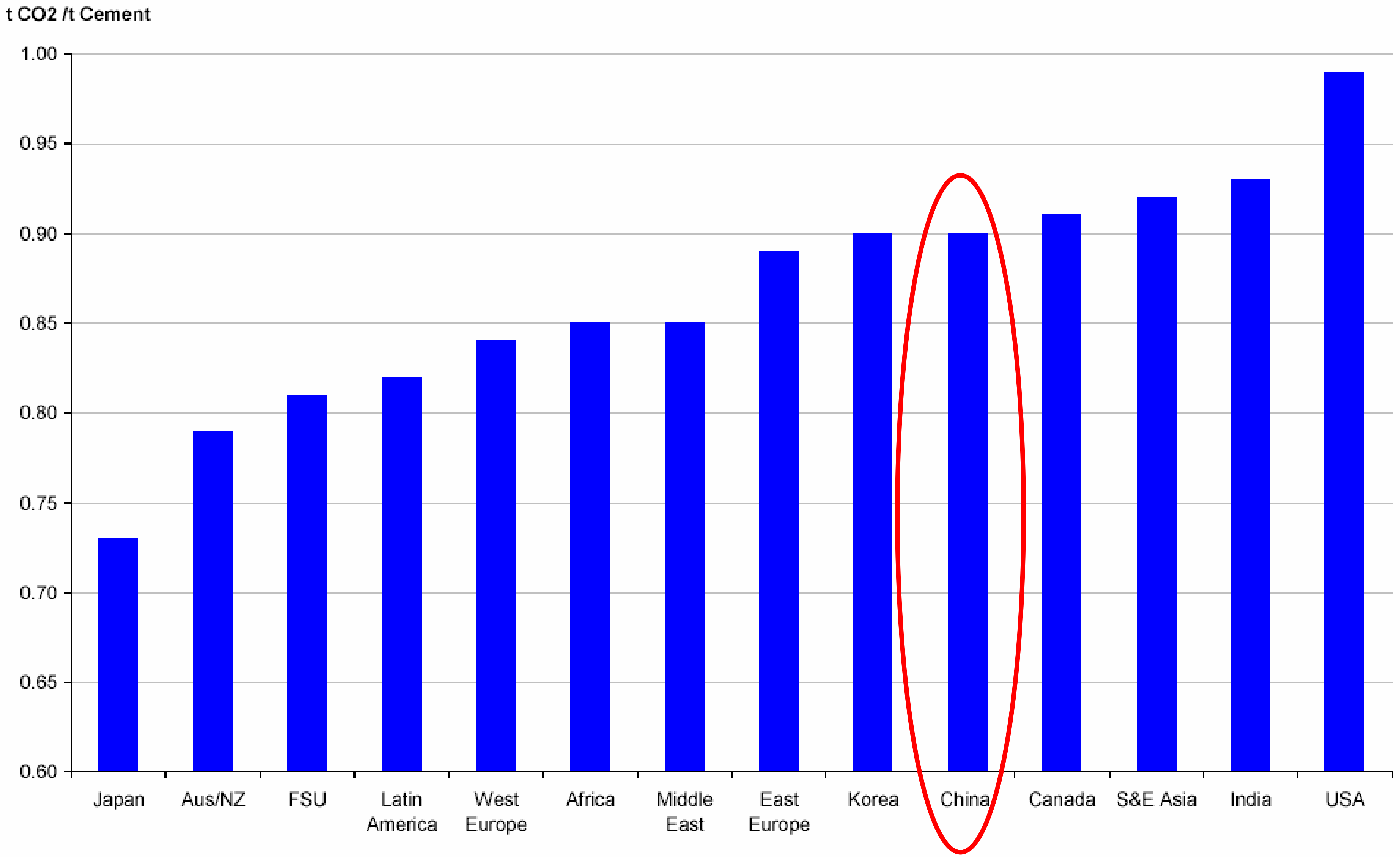
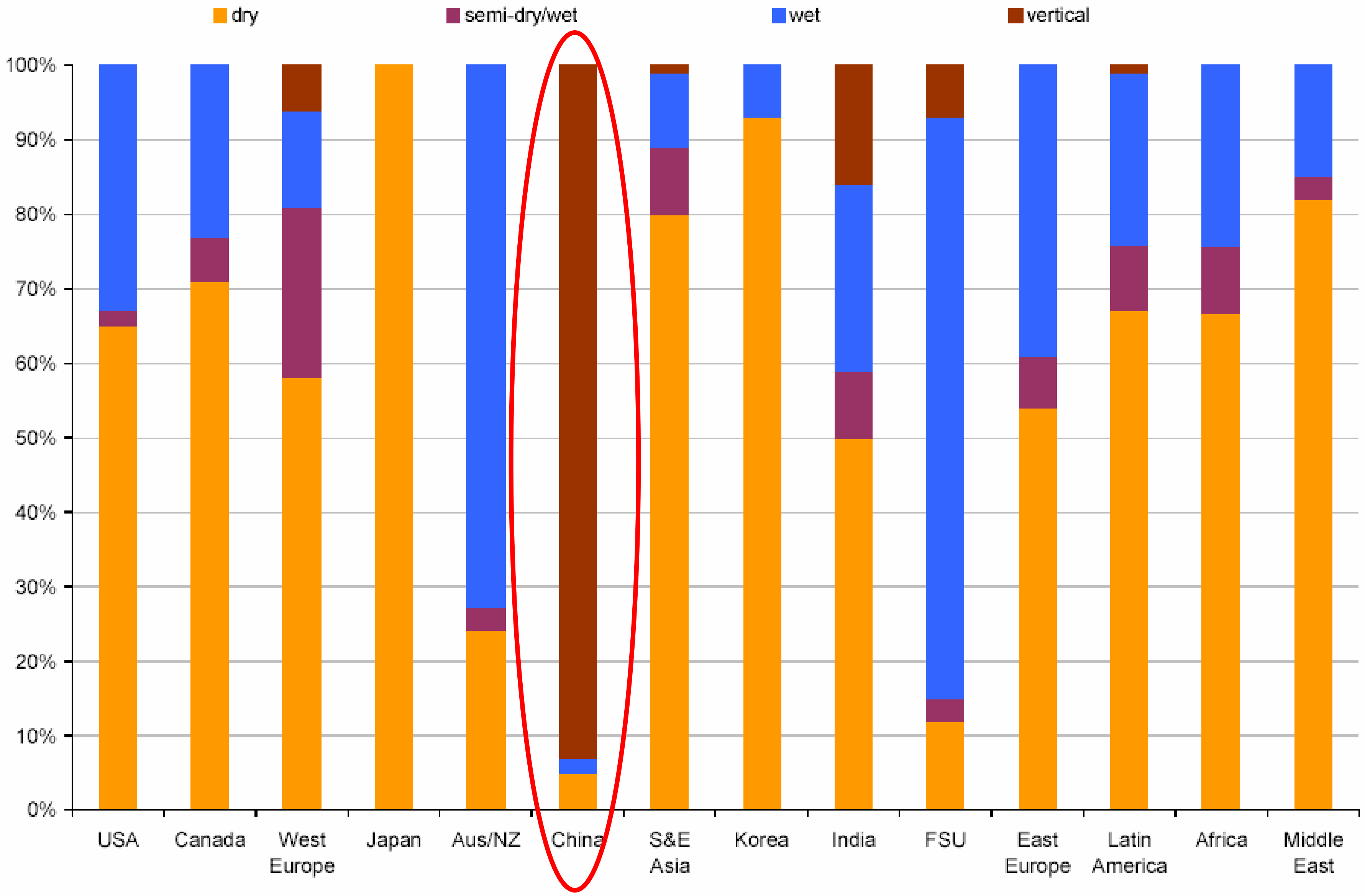


Figure B7 Cement CO_2 intensities by region, 2000



Source: Humphreys and Mahasenan (2002).

Figure B5 Kiln type by region, mid 1990s



Source: Humphreys and Mahasenan (2002).

First step: Phasing out of the shaft kilns SD PAMs

- Shaft kilns:
  - energy intensive, small plants (no scale economies),
  - low capital-intensity, unskilled workers (?)

- May we take advantage of a high level of retirement of shaft kilns in the following years. i.e. does this make sense to “push” China to close its shaft kilns now : **?**

- Whatever, this is a **national target** (energy conservation)

- A strategy which seems to entail difficulties nowadays
  - Why? Capital ? Labour quality? Governance?...
  - Is international cooperation able to provide help for the achievement of this target?

Programmatic CDM, Sectoral Crediting… for new investments

Why only new investments?

- Low improvement potential for existing plants?
  - 100% coal-based and should maintain
  - Relatively good clinker ratio + very low availability of blended materials

- New investments should be considerable (consumption growth until 2015-2020 and closure of shaft kilns)

- Easier to define an ambitious benchmark (moving)

- Prevent the system from flooding EU ETS or other trading schemes….

- Learning process (reporting, monitoring…) → broader system

What about competitiveness?

So far, not treated in the short run…

Even a tradable performance standards system for the chinese cement sector (ambitious!) would not address the competitiveness issue if allowances in the EU ETS are (purely) grandfathered or auctioned.

Background:
- (Chinese) trade is marginal (transportation costs)
- Mainly due to imbalance markets (no export capacities until now)
- Significant share of trade is intra-firms (clinker)
- China does not want to be an exporter of cement (export tariff).

→ A modest issue ?
→ A Chinese export CO2 tax ? (tradeoff : Export tax vs. SD PAMs)