## CLIMATE FINANCE

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### **PRINCIPLES**

### What is it?

- Copenhagen and Cancun Accords commit developed countries to provide, for mitigation and adaptation, in developing countries
  - \$30 bn 'fast start finance over 2010-12
  - \$100 bn p.a. by 2020 (= 0.25% of Annex II GDP)
    - "...in the context of meaningful mitigation actions..."

## Why? For reasons of both...

### Equity

- Developed counties largely responsible for stock of CO<sub>2</sub> but...
- ...most harm and need for adaptation will arise in developing countries

### Efficiency

Mitigation likely cheapest in developing countries,
 who may be reluctant/unable to bear full cost

### But—Where is the money to come from?

- Mix between private and public sources uncertain
- Possibilities reviewed in
  - UN High Level AGF report (Nov 2010)
  - IMF/WB report to G20 (October 2011)
    - At www.climate.change.worldbank.org/content/mobilizingclimate-finance
- Focus here on public sources, discussed in
  - "Promising domestic sources"
  - Charges on international aviation and maritime fuel both at www.imf.org/external/np/g20/

#### Alternative approaches:

 Agree burden-sharing, each country then raises revenue from preferred source—e.g. small increase all taxes, cut spending...

- Earmark revenue from a common, 'innovative' source
  - Con: Either makes spending inflexible or misleads public?
  - Pro: Eases political acceptability?

Focus in public debate has been on latter

IMF work focused on two particular sources of innovative finance:

Carbon pricing

Charges on international aviation and maritime fuels

### CARBON PRICING

i.e.: Uniform charge—by tax or emissions trading scheme (ETS)—on CO<sub>2</sub> emissions

#### Serves three purposes in this context:

- Exploits all opportunities for mitigation and gets balance between them right:
  - Fuel switching in power generation
  - Reducing electricity demand
  - Reducing demand for transportation fuels
  - Reducing direct fuel consumption by households/industry.

(whereas e.g. electricity tax only cuts electricity demand; petroleum excise does nothing on coal...)

...while also providing right signal for innovation

- Raises public revenue...
  - Significant climate finance with even 10% allocation...
  - ...leaving a lot for consolidation or other purposes But why allocate to climate finance?
  - Maybe one of most efficient sources at margin
  - And salient for climate issues

- Catalyzes private flows to developing countries
  - E.g. incentive for developed country operators to purchase offsets in developing

### Tax or ETS?

Choice is less important than doing something—and getting design right:

Comprehensive coverage

Raise revenue—no free allocations under ETS

Price stability provisions for ETS

## A \$25/ton CO<sub>2</sub> price in developed countries in 2020 would

Reduce their emissions by about 10%

Raise about \$250 bn p.a.

 ...and so provide \$25 bn for climate finance if 10% made available

## Obstacles and options

- Challenges are from higher energy prices, which
  - Hurt consumers
  - Reduce competitiveness of energy-intensive firms in global markets

- Options to address these include:
  - Scaling back pre-existing energy taxes (on electricity and vehicles)
  - Compensation through broader tax system
  - Border tax adjustments

## CHARGES ON INTERNATIONAL AVIATION AND MARITIME FUELS

## Why?

- Sizable and growing source of emissions—about 4 %
- Excluded from Kyoto—hard to allocate control
- Currently untaxed, reflecting:
  - Legal constraints in aviation
  - Tax competition, given mobility of vessels
- Favorable tax treatment in other respects too:
  - No VAT
  - Shipping income subject to special tonnage tax

## Some degree of international cooperation needed

- Possibility of avoidance if fuel untaxed by some
  - A large ship, e.g., can travel the world on a single uptake

 Through IMO and ICAO, strong commitment to equal national treatment in both sectors

- Are precedents:
  - UNITAID on ticket taxes
  - International Oil Pollution Compensation Funds (IOPC)

### **Current situation**

- IMO and ICAO acting to improve fuel economy
  - Landmark IMO agreement July 2011

### But explicit charges would:

- Reinforce effect through other responses
- Raise revenue, e.g. for climate finance
- Work underway on charging: e.g. proposals under consideration in IMO
- International aviation included in EU-ETS from 1/1/2012—but contentious! Legal challenges

## A global \$25/ton charge in these sectors

 Would raise about \$12 bn (\$25) bn from international aviation (maritime) in 2020

Reduce their emissions by approximately 5%

- <u>But</u> could harm (some) developing countries
  - —so interest in transfers to ensure 'no net incidence' ...
  - —...tough issue then being to assess incidence

## Compensation in aviation?

 Much of the burden (including for tourism destinations) would likely fall on passengers from wealthy countries: ticket prices rise 2-4%

 So fully rebating aviation fuel charges—a natural approach—could be over-compensation

Special arrangements may be needed for hubs

## Compensation in maritime?

 Full rebate may not be adequate compensation, because less plausible that burden passed on

Most import prices rise only 0.2-0.3%

- Are various proposals: e.g., allocation by (adjusted) shares in seaborne imports
  - E.g. in one exercise (not IMF!), rebate in % of total revenue would be:
    - Pakistan, 0.3%; Cambodia, 0.05%; Indonesia, 0.7%...

## How to implement?

- As between tax ('levy',...) and ETS:
  - Tax more familiar: at refinery, distribution or port
  - Free allocation an issue with ETS
  - Governance issues in either case
    - Agreeing level/changes in rate/cap; Monitoring and verifying collection/emissions

Some would exclude governments from collection

### **CONCLUSIONS**

Strong equity and efficiency case for climate finance

Need for dedicated, innovative source unclear

- Strong economic case for charges on international aviation and maritime fuel
  - Compensation mechanisms could be found
  - But: legal obstacles in aviation and need for very wide participation in maritime