

Carbon Pricing Instruments: Options for Coordination

**Regional Perspectives on the Implementation of
Carbon Pricing Instruments**

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Outline

- Carbon pricing instruments:
 - Carbon tax
 - Emissions trading
 - Offset credits
- Domestic coordination
 - Emissions trading and offsets
 - Carbon tax and emissions trading
 - Carbon tax and offsets and emissions trading
- International coordination
 - Linking emissions trading systems
 - Harmonizing carbon taxes
- Conclusions

Carbon Tax

Charge per tCO₂ “emitted” by specified sources

Government sets the price and gets the revenue

Easy to implement for fossil fuel emissions

EITE sources often exempt, lower rate, or rebate

Charge needs to rise over time due to inflation, rising incomes and further emission reductions

Commitments to future tax rates politically difficult; creates uncertainty for sources

Emissions Trading

Cap on total emissions by specified sources, allowances equal to the total distributed by auction or free, allowances can be traded, each source must remit allowances equal to actual emissions

Market determines price, price stability features common, government gets auction revenue

EITE sources get some some/all allowances free

Commitments to cap decline common

More complex to set up/administer than a tax

Offset Credits

Verified emission reductions by excluded sources can earn credits, that with government approval, can be used by sources for trading/tax compliance

Offset projects and approval process can be domestic or international (CDM and JI)

Allowance price /tax cap the credit price

Compliance use often limited

Governments also buy credits for international compliance and other reasons

Domestic Coordination

Coordination not needed with a single instrument

Multiple instruments not unusual: 4 tax only jurisdictions, 44 trading only, 15 both

Coordinate instruments to get broad coverage of emissions without overlap

Example, carbon tax on fossil fuels with EITE exemption, emissions trading for EITE (with free allocation) sources and process emissions, and offset credits for trading and/or tax compliance

Emissions Trading and Offsets

Ability to use offsets for compliance a common feature of emissions trading systems; often offsets from multiple domestic and international sources

Administrator decided which offsets are eligible

Credit use often limited; 5 to 10% of emissions

Allowance price caps credit price, if credit price lower it reduces the allowance price

Tax and Emissions Trading

Carbon tax easy to implement for fossil fuels due to existing energy taxes

If fossil fuel firms are large enough to dominate allowance market, a tax is good approach

Free allocation is better than tax exemption for EITE sources; it still gives them an incentive to cut emissions

Disadvantage is that tax is likely to differ from the allowance price with resultant political pressures

Carbon Tax and Offsets

Acceptance of offsets for tax compliance possible but not common; usually a limit on offset use

It leads to small savings for sources and revenue loss for the government

Alternative is to collect the tax and government buys offset credits

With carbon tax and emissions trading and offsets, limit offset use to sources in the trading program

International Coordination

Emissions trading systems are integrated/linked

Considerable experience with integrated systems
(EU ETS and California/Quebec)

Lots of links to units from other systems and the
Kyoto mechanisms

Offset credits from various international/domestic
systems accepted by trading systems

Trading systems set eligibility criteria and limits
so credit prices differ somewhat by project

International Coordination

To coordinate **carbon taxes** must be harmonized; same rate, coverage, exemptions, etc.

Very difficult with floating exchange rates

Has never been done, even attempted

Could allow EITE sources to use common allowances for compliance

If a carbon tax leads to over achievement of NDC, Paris Agreement Article 6 might recognize an ITMO that could be sold, but price not equal to tax

Summary

Domestic coordination needed with multiple pricing policies

Carbon tax and emissions trading with offset credits is most common combination

Trading preferred to tax for EITE sources

Lots of experience with international coordination of emissions trading systems through linking

No experience with international coordination of carbon taxes

Thank you!

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