Allocation of allowances in greenhouse gas markets: lessons from New Zealand

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1. Objectives for allocation
2. What, where and when are the costs?
3. Who should pay?
   a. A child’s view
   b. Responsibility
   c. Need and ability to pay
4. Administrative lessons
Objectives for allocation

1. Reduce leakage
2. Smooth transition
3. Participation and compliance
4. Equity

Match allocation methodology to objectives

Regulation and allocation can be separated
What are the costs? Not point of regulation or allocation

Costs to individuals/firms:
- Direct costs (mitigation) + indirect costs (higher input costs)
- Costs to communities – not just sum of individual costs

What are the costs? point of allocation

Costs to individuals/firms:
- Direct costs (mitigation – value from free allocations) + indirect costs (higher input costs)
- Costs to communities – not just sum of individual costs
What are the costs? Point of regulation

Costs to individuals/firms:
Direct costs (mitigation, purchase) + indirect costs
Costs to communities – not just sum of individual costs

Where are costs?
Mitigation costs occur where mitigation happens
‘permit transfer’ costs/gains could occur anywhere
– depends on initial allocation
Indirect costs are broadly spread – price and mitigation cost pass-through
If price cannot be passed on, allocation of cost is different
Objective  1. Reduce leakage

How much leakage is likely within China?
   Internationally?
   Between provinces?
   Between sectors?
New investment is more vulnerable than existing capacity

Output-based (ex-post) allocation - essentially output subsidy

Output based allocation has costs
   – inefficient because no incentive to change consumption patterns.
   – costly because cannot auction units

How do benefits (reduced leakage) compare to costs?
Do we protect industry forever?

2. Smoothing the transition

In the short term:
• carbon and other markets may not work well
• participants will make errors and face high transaction costs
• firms and consumers (at all points in value chain) will not mitigate and invest – need time to learn

Some individuals may face very high costs
2. Smoothing the transition

- Reduce direct immediate financial impact
- Reduce the need to change behaviour fast.
- Reduce the need to trade – or the costs if people don’t.

Loose cap, low price or generous grandparenting in short term

3. Participation and compliance

Free allocation can induce actors to provide data – Chile

Forestry ETS – need free allocation to encourage small foresters to cooperate and engage

Allocate units for first years on grandparenting basis
4. Equity

Who does bear costs?

Who do you want to bear costs?

Context: Time

Who bears costs of efficient regulation in the long-run?

- Consumers
- Those who could mitigate but choose not to

- Firms do not bear long-term cost (if markets are competitive in long term)
- New entrants do not bear any cost (they invest only if it is profitable)
Context: Time – short run

Who bears costs of efficient regulation in the short run?

Those who cannot avoid cost or pass it on.
- existing contracts
- rigid regulations
- trade-exposed (even if not vulnerable to leakage)

Consumers

Those who ‘choose’ not to mitigate
- Either pay liability or miss opportunity

Current owners of capital – inappropriate investments – stranded assets
- Human – knowledge; training
- physical – stranded assets
- land

Context: Time – long run

What happens between short and long run?

- International agreements and regulations evolve – can pass on more cost
- Markets mature – easier to trade
- People learn how to trade
- Capital depreciates (other than land)
- New investment not disadvantaged
Who **should** bear costs?

There are many valid views on the fair sharing of costs.

This is **not** a technical question.
1. A child’s (and behavioural psychologist’s) view

Everyone should have their turn
Equal splitting of tasks and goodies

Or each ‘sector’ should face the ‘same’ cost – but sectors don’t bear costs, people do.

2. ‘Polluter pays’ – Who is the ‘polluter’?

Who is responsible for emissions?

– Producer who doesn't try hard enough to reduce?

– Consumer who chooses to consume products?
Should producer be compensated for stranded assets?

Was action deliberate?
Was there full knowledge and understanding?

Those who do bad things unintentionally should not be punished. But if they benefited, could their gains be taken away?

Conversely.... Those who have deliberately reduced should be rewarded. Those who do good things unintentionally should not receive benefits.

3. ‘Poor’ versus ‘rich’ – having the means

How do we protect the poor and vulnerable?

Who are the rich?
   Owners of firms?
   Consumers?
   Tax payers?
3. Allocating for equity in the short term

Lump sum allocations to those with ‘stranded assets’ – may be allocated over several years

- historical emissions – heterogeneity in stranded assets; or
- benchmarks - Early action / ‘good’ firms – avoid strategic increases in emissions before data collected.

Auction and good use of revenue

In the long run it’s all about equity

Those who choose not to mitigate when they can should bear cost

If consumers will not pay the higher costs, we might want to compensate firms that are efficiently mitigating

Share the costs according to ability to pay.

auction and use revenue well
Summary
Be clear on objectives for free allocation – in short and long term
Match method(s) of allocation to objectives
Be clear how direct costs are distributed and how costs are or are not passed on
Short versus long term is critical
Transfers of wealth can be much larger than mitigation costs
Only address leakage / inability to pass on costs if critical
Only allocate to new entrants if want to address leakage
Over time, auction to return benefit to society