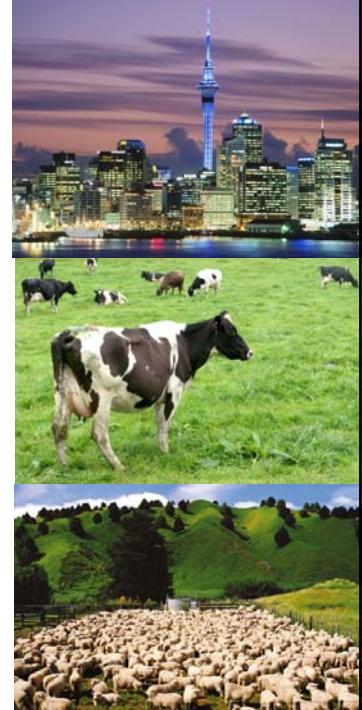




# Allocation of allowances in greenhouse gas markets: lessons from New Zealand

Suzi Kerr, Motu  
Beijing, October 2013

- 
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

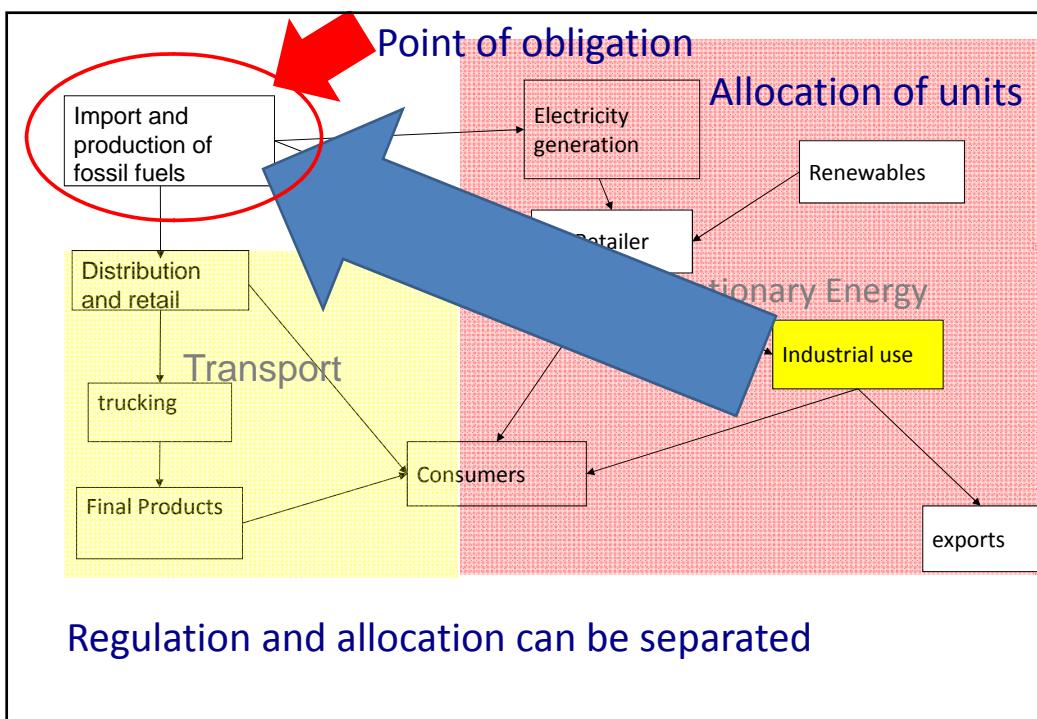


## Objectives for allocation

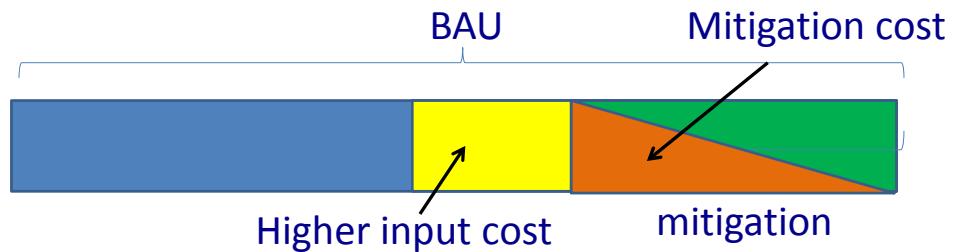
1. Reduce leakage
2. Smooth transition
3. Participation and compliance
4. Equity

**Match allocation methodology to objectives**

3



## What are the costs? Not point of regulation or allocation



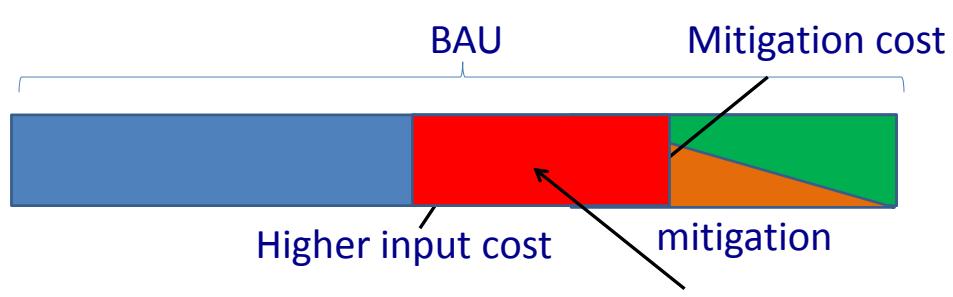
Costs to individuals/firms:

Direct costs (mitigation) + indirect costs (higher input costs)

Costs to communities – not just sum of individual costs

5

## What are the costs? point of allocation



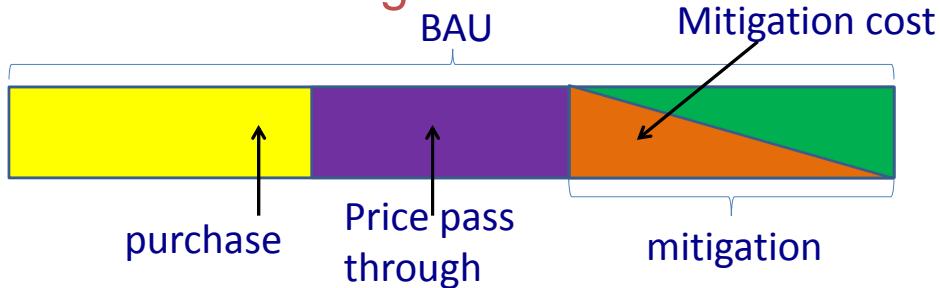
Costs to individuals/firms:

Direct costs (mitigation – value from free allocations)  
+ indirect costs (higher input costs)

Costs to communities – not just sum of individual costs

6

## 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

7

## 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

8

## 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?

9

## 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

10



## 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

11



## 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

12



## 4. Equity

Who does bear costs?

Who do you want to bear costs?

13



## 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)

14

## 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

15

## 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

16



## Who should bear costs?

17



There are many valid views on the fair sharing of costs

This is not a technical question

18



## 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.

19



## 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?

20



## 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.

21



## 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?

22

### 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

23

### In the long run it's all about equity

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

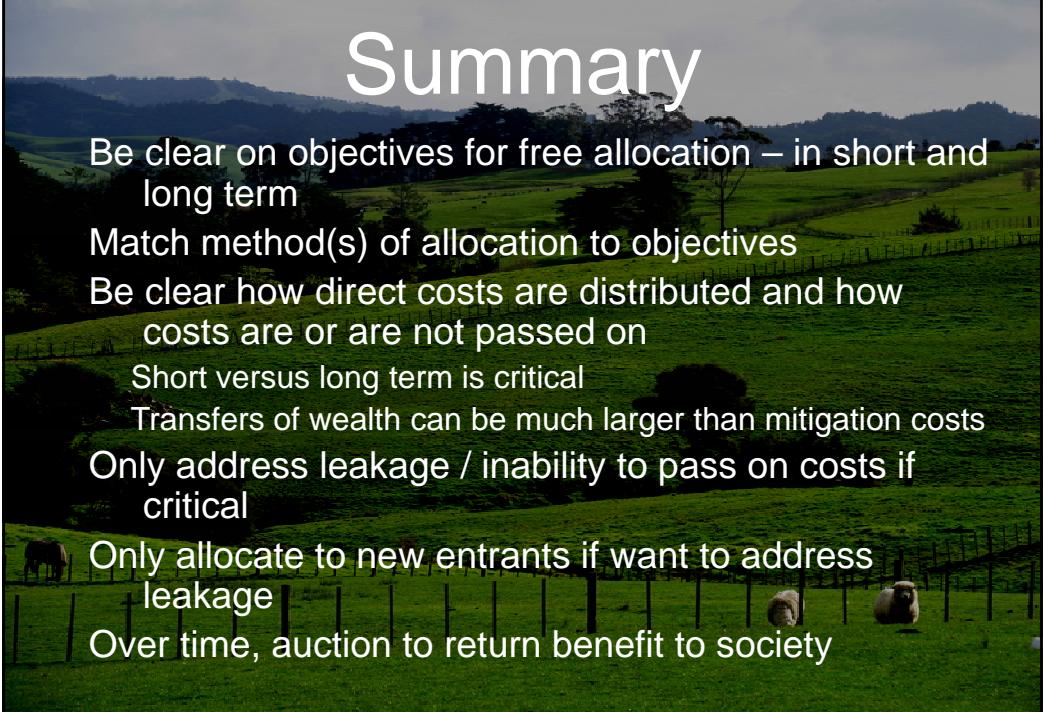
If consumers will not pay the higher costs, we might want to compensate firms that are efficiently mitigating

Share the costs according to ability to pay.



auction and use revenue well

24



# 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