

# Institutional Change, Transactions Costs and Fisheries Reform: Two Illustrations from New Zealand

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# First principles

1. “Market failure” pervasive in fisheries because of “common pool” problem.
2. But “government failure” is also pervasive.
3. “Smart regulation” (e.g., ITQs) seek to use economic incentives to reduce “government failure.”



# 2001: Quota/ACE split and DVs

- Quota: the permanent right, expressed as the % of the TACC
- Annual Catch Entitlement (ACE): For any year, the tonnage of catching rights generated by the ownership of quota.
- Deemed Values: A fee (per kilo) paid for landing fish in excess of ACE.
- Also explored self-governance.



# Deemed values: Kiwi pragmatism

- **Practical tool to allow *ex post* balancing.**
- **Allowed civil administration of “fees”**



# Administrative context

- If  $P(\text{ACE}) < DV < P(\text{fish})$ , then pretty straight-forward.
- If  $P(\text{ACE}) > P(\text{fish})$ , then enforcement matters.

# But also: Increases market efficiency

- **Reduces total number of transactions.**
- **Reduces transactions costs for very small overages.**
- **Reduces inefficiencies associated with thin markets.**

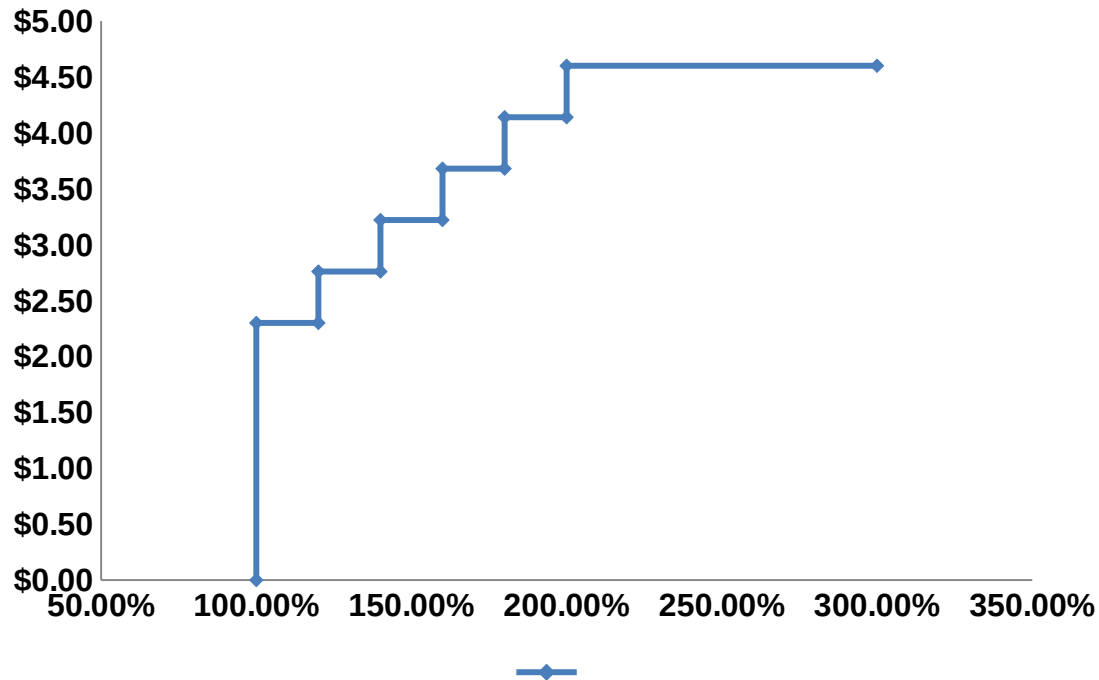


# “Standard” deemed values

- **Base rate:  $P(\text{ACE}) < DV < P(\text{fish})$**
- **“Standard ramping” of differentials:**
  - **0-20% over: Base rate**
  - **20%-40% over: 120% of base rate**
  - **40%-60% over: 140% of base rate**
  - **60%-80% over: 160% of base rate**
  - **80%-100% over: 180% of base rate**
  - **Over 100% over: 200% of base rate**



# Differential deemed values





# Summary

- **Deemed values reduce transactions costs of balancing in multispecies ITQ fisheries for government and industry.**
- **Differential deemed values map out increasing marginal cost of catch.**

# Self-governance

**Self-governance: Regulatory framework tolerates/encourages industry to make/implement decisions that traditionally are government's.**

**Rationale: Industry can achieve regulatory objectives at lower cost and/or increase economic value.**



# Transactions costs are key.

- **Collective decision-making involves transactions costs.**
- **Value of people's time large part of costs.**
- **Transactions costs increase exponentially with the number of participants.**
- **Monitoring and enforcement are expensive.**
- **Benefits of collective action must exceed costs of self-governance.**



# Factors that help fisheries self-governance.

- A closed pool of participants. (Essential)
- More clearly defined rights (e.g., shares)
- Small numbers.
- Homogeneous self-interests.
- Non-unanimous decision-making structures (Essential for pools > about 20.)
- Predictable biologic systems. High % of self-governance is in shellfish.
- Applicability of spatial allocation tools.



# Factors that help fisheries self-governance.

- **Efficient enforcement mechanisms.**
- **A good lawyer with a fishing background.**
- **Learning from other successful cases.**
- **Cost recovery for monitoring and enforcement (creates opportunity for “easy win.”)**



# Role of Government Philosophy

- **Economic outcomes matter.**
- **Willingness to shift authority.**
- **Willingness to enforce decisions from self-governance.**
- **Defining vehicles for non-unanimous decision-making.**
- **Flexibility and incremental devolution.**
- **Tolerance for mistakes.**



# Two references

- **Townsend, Shotton, and Uchida. 2008. *Case Studies in Fisheries Self-governance*. FAO Technical Paper 504.**
- **Townsend. 2010. “Transactions Costs as an Obstacle to Fisheries Self-governance in New Zealand.” *Australian Journal of Agricultural and Resource Economics* 54: 301-320.**



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