Pricing in environmental markets

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Motivation
How are prices set in environmental markets?

- Need to understand how participants view price information
- Price discovery should not get in the way of market function
- A market that prices trades poorly (by mechanism, not level) will fail
Take-home messages
Pricing in environmental markets

1. The value of what is being traded is likely to vary enormously over space and time, to all participants.

2. Who sets pricing, and how, is vital to market viability.

3. If financial privacy is important to market participants, then pricing can be the key sticking point.
What is a market?
What is a market?
Variation in commodity prices
Corn

![Corn Price Per Bushel](chart.png)
Variation in commodity prices

Water

[Graph showing the variation in commodity prices for water from July 2012 to June 2013, with separate lines for total volume traded and average price.]
The value of environmental goods

- We assume that a thick market will have stable prices.
- This assumption underlies pricing strategies in many environmental markets.
- The value of water-based services varies enormously over space and time, to both buyers and sellers.
- Price rigidity creates obstacles to market participants.
- *My opinion:* We shouldn’t be concerned about large price fluctuations, but should be concerned about explaining why this is normal.
Pricing of environmental transactions

Diverse pricing mechanisms exist in environmental markets

- One buyer or seller (water banks, wetland mitigation banks)
- Coffee shop markets, brokerage
- Bulletin boards (most environmental exchanges)
- Algorithmic clearing

My opinion: Perceived fairness of pricing is an underappreciated obstacle in environmental markets
Confidentiality, Trust, and Pricing

- Trading involves both financial and verification elements
- Trading involves the transfer of financial information between buyer, seller, and possibly intermediaries
- If one of the participants in the financial transaction is the regulator, this can create distrust over motives
- Handling financial transactions can also be a large burden on an environmental regulator
Confidentiality, Trust, and Pricing

- An effective way to increase participants’ trust is to make the financial transaction independent of the verification aspect.

- Even when there is only buyer in the market, it is possible to add a layer of privacy/confidentiality to pricing.

- In a smart market with complex rules and aggregation, private financial information remains secure even with few participants.

- *My opinion*: The objective is to encourage transactions. Price discovery is just a milestone, and not the outcome.
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Questions?

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