

Why water trading theoretically improves welfare, and under which conditions?

Javier Calatrava, Alberto Garrido, Lola Rey
UPCT CEIGRAM-UPM

European workshop Paris, 11 Feb. 2014

What is a Water Market?

- Any institutional framework that allows two users to exchange water or water rights, voluntarily agreeing the conditions of the exchange.
- Trading decisions are voluntary and provide mutual benefit
- The context is that of water scarcity, either structural or temporary



What are the advantages of WMs?

- Increases efficiency in water allocation
- Flexible water allocation mechanism
- Disseminates information about the real value of water
- Stimulates water saving
- Lower cost alternative to developing new water supply
- Reduces water supply risks and uncertainty
- Can be adapted to different institutional frameworks to satisfy different water policy needs



What are the disadvantages?

- Can increase pressure on water resources
- Can mobilise unused rights
- Can result in inefficient allocations due to:
 - Poorly defined water rights
 - Thinness: reduced activity/price dispersion.
 - Market power / Speculative behaviour
 - The stochastic nature of water availability
 - Transaction costs
 - External effects
- This is affected by the type of water market, water rights and regulatory framework



Potential externalities

- Problems of very different nature and highly dependant on:
 - The spatial and sector extent of water trading
 - The existence of property rights
 - The type of water market
- Impact on return flows and their users
- Social effects (employment, equity, traditional irrigation)
- Environmental effects (river flows, salinity, pollution)
- Solutions: clear definition of property rights, public control, restrictions to trading, systems for conflict resolution, compensation schemes, cooperation



Concluding remarks

- Water markets increase the total economic value of scarce water resources and provide flexibility to water allocation
- Reduce the economic vulnerability of water users facing water supply risk and uncertainty
- WMs benefits increase with their spatial and sector extent but so do also their drawbacks
- They require an adequate institutional and regulatory framework to prevent externalities and other market failures and guarantee an overall net social benefit



Next presentation: Water markets in EU agriculture: results from ex- ante economic evaluation.

Davide Viaggi

European workshop Paris, 11 Feb. 2014