

Economics of Soil C Sequestration

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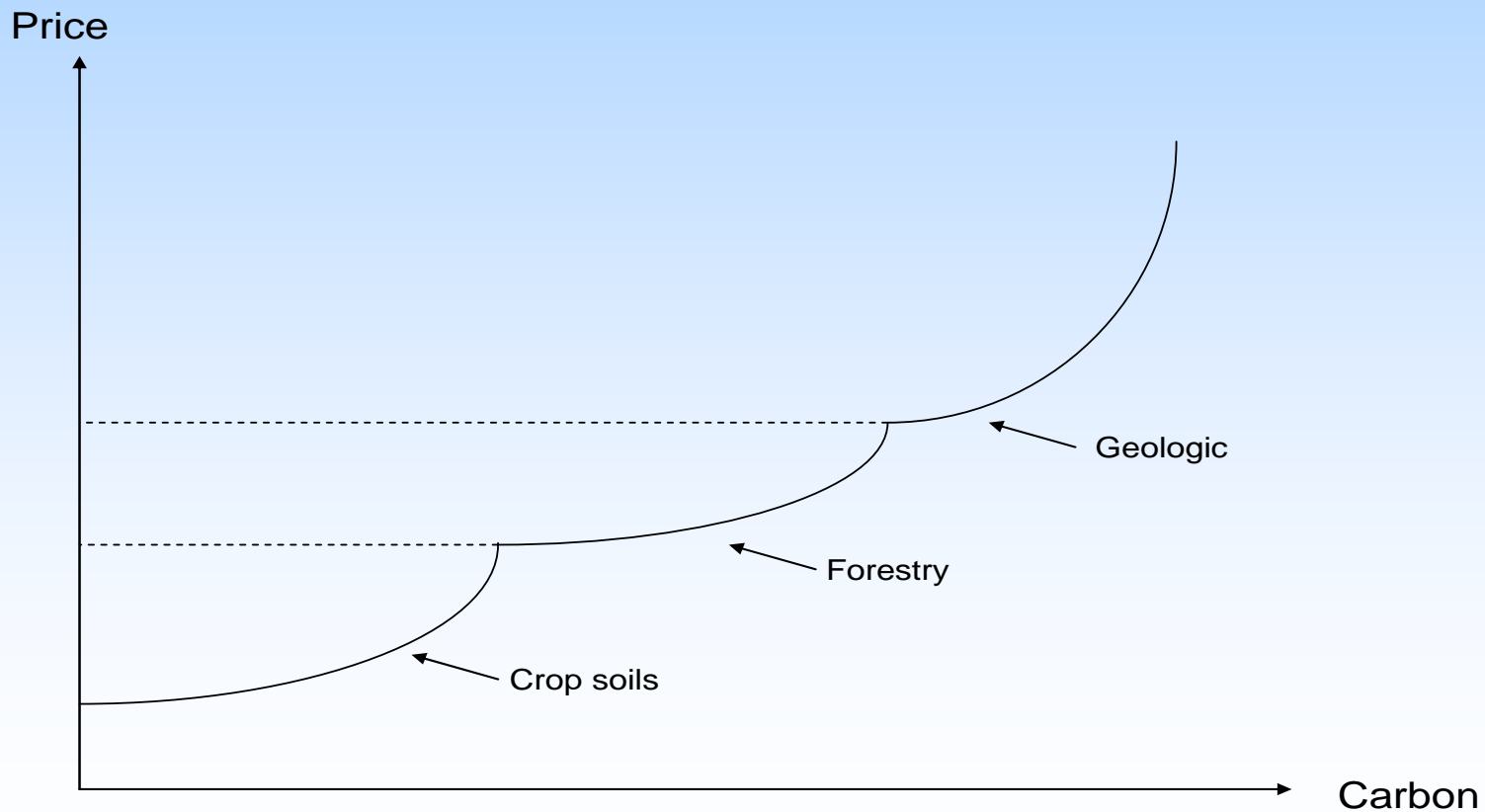


Farm-level decision to enter C contract

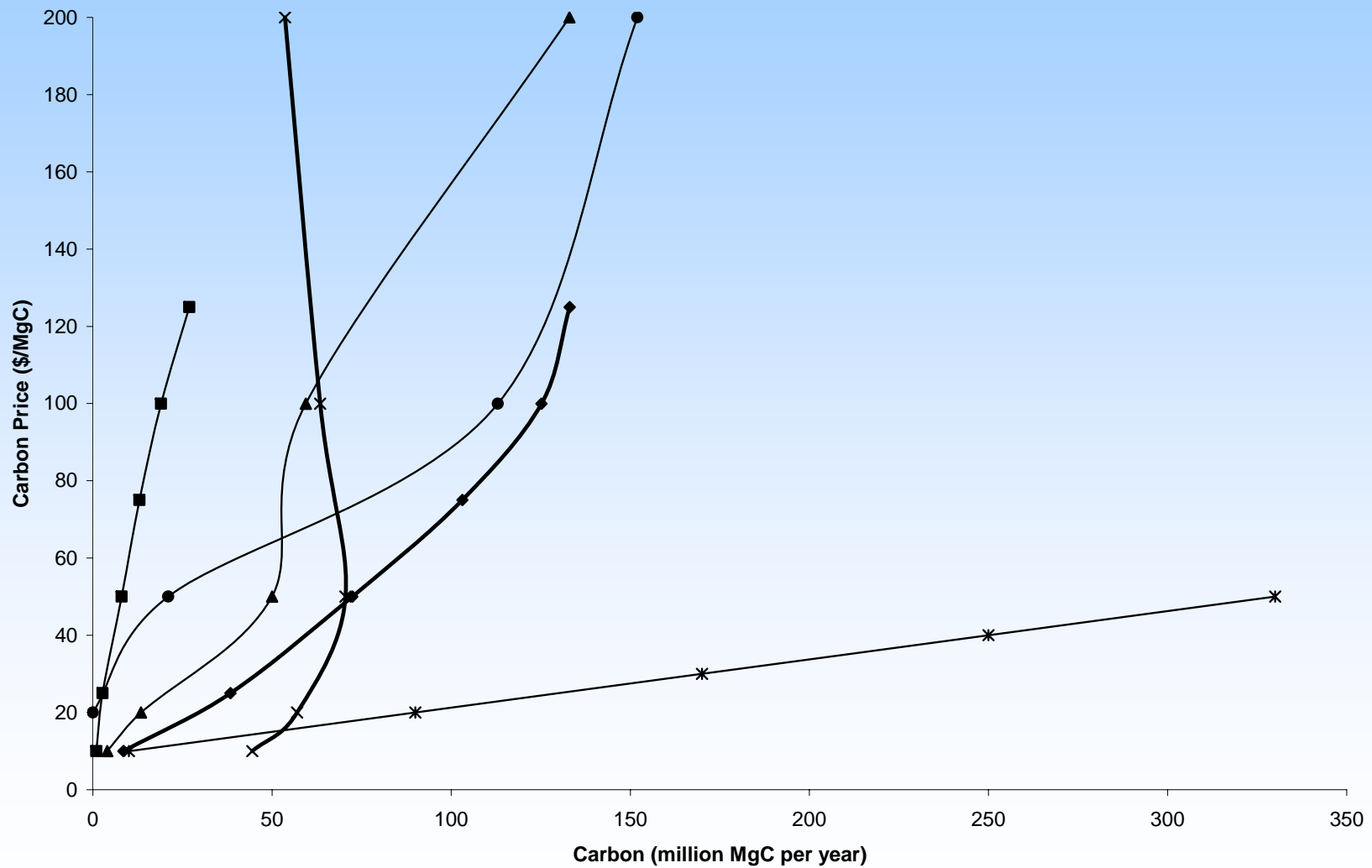
- Soil C an example of an ecosystem service
- Similar to contracts for CRP etc.
- Opportunity cost of changing practices =
change in returns + other adoption & transaction costs
- For payment P (\$/ha), expected sequestration rate C (MgC/ha), farmer will enter contract if
$$P > (\text{Opportunity Cost})/C$$
- Opp Cost & C vary over the landscape so willingness to participate will vary
- Risks/uncertainties in Opp Cost, C and P
- Permanence: paying for storage (an issue for any mitigation strategy!)

Technical and Economic Feasibility

- Why offsets? Need a cost-effective, diversified strategy
- Soils: a “cup half full”, feasible now, low-cost & risk, co-benefits, no-regrets, use existing institutions & regulations



US C supply curves from studies of afforestation and crop soils (from Pew Report)



◆ ERS Afforestation
■ ERS Crops
▲ MS Afforestation
✕ MS Crops
* SR Afforestation
● MS Biofuels