

## Water Rights



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In the early chapters of an introductory economics textbook, one is likely to find a reference to something called the “diamond-water paradox,” meant to demonstrate the difference between economic value and other notions we might have of the relative importance of different commodities. Can the price of something be a good measure of its inherent worth if water, something essential to life, bears a miniscule price compared to diamonds, something with merely ornamental uses? A moment’s reflection, however, reveals that there is no real paradox here. The difference derives from the abundance of water and the scarcity of diamonds. In fact, water historically has been so plentiful that it typically has not been treated as an economic commodity subject to the laws of supply and demand. Surely, if there were rivers and lakes of diamonds, they would be just as cheap — and engagements might be marked in a very different way.

What happens when water’s abundance begins to recede? This issue of *Region Focus* features a story on the growing challenges facing Fifth District communities and public utilities as expanding populations squeeze the ability of ground and surface water resources to quench the growing thirst. Latent problems with traditional approaches to water allocation have risen to the surface during the recent drought.

Frequent readers of this column will not be surprised if

I suggest that market-based approaches to water allocation problems deserve serious consideration. At one level, water seems very much like a standard economic commodity suitable for allocation guided by market prices. Measuring an individual’s or a business’ use of water does not pose significant difficulties. Why then shouldn’t users pay a price that reflects the full social costs of their use? Usage may not be very sensitive to price in the short run, but higher prices would surely make individuals more willing to consider longer-term changes in behavior or the purchase of water-saving devices.

Of course, the technology of water delivery may make this a market that is not well suited to competition. A system for carrying water has some of the characteristics of a natural monopoly, since a competing system would have to duplicate the costs of building an infrastructure. Such duplication is usually wasteful from a social point of view. Markets with natural monopoly characteristics are often subject to government regulation to prevent a monopolist provider from extracting excess profits.

There may also be political constraints that limit our ability to treat water as a standard economic commodity. Pricing water use at full social cost may simply not be a politically acceptable option, given that it would represent a substantial departure from the traditional approach, in which users pay at most for the resource costs of water treat-

ment and distribution. As water becomes more scarce, the opportunity cost associated with alternative uses rises. Standard public utility pricing of water does not take such costs into account.

So setting prices for water may not be an easy task. Still, price systems can work for more difficult allocation problems as well, including cases in which the government seeks to allocate some resource for private use. In fact, the laboratory experiments of Nobel Prize economist Vernon Smith, the subject of this issue’s Interview, have deepened our understanding of such allocation questions. For example, his work on the design of institutions for the allocation of airport landing rights showed how the careful design of market institutions can align private incentives with social objectives. Now I’m not suggesting that Professor Smith begin conducting experiments aimed at solving water allocation problems. His work proves, however, that the interplay between academic research and public policy problems can yield creative approaches to difficult questions concerning the allocation problems that local, state, and even national governments sometimes face. I don’t expect this flow of benefits to dry up any time soon.

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