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## **Market Institutions**

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*Abstract.* Market-supporting institutions ensure that property rights are respected, that people can be trusted to live up to their promises, that externalities are held in check, that competition is fostered, and that information flows smoothly. Evidence is reviewed here on some market institutions: property rights and contracting with and without the law, and mechanisms to sustain information flow in markets.

Markets, to work as they should, need institutions. Defining the rules of the game, institutions consist of the constraints, formal and informal, on economic and political actors (North, 1991). Market institutions serve to limit transaction costs: the time and money spent locating trading partners, comparing their prices, evaluating the quality of the goods for sale, negotiating agreements, monitoring performance and settling disputes (McMillan, 2002).

The notion that institutions matter is as old as the study of economics. For markets to create gains from trade, as Adam Smith recognised, the state must define property rights and enforce contracts.

That institutions matter is also one of the chief insights from modern economics. In the presence of informational asymmetries, markets can falter. If buyer and seller have different information about the item to be exchanged, a “lemons market” may arise. Unable to distinguish high-quality goods, buyers may be unwilling to pay a price that elicits supply of anything other than the lowest-quality items. Potential gains from trade go unrealised (Akerlof, 1970). When information is distributed unevenly—as is ubiquitous in the real world of economics, even if most of the textbooks have yet to bring it on board—prices do not incorporate all relevant information, and so nonprice information is needed (Spence, 1973; Rothschild and Stiglitz, 1976). Limiting the

inefficiencies from informational asymmetries requires mechanisms for signaling and screening: devices like reputation, warranties and credentials, as well as in some cases government-set rules and regulations. A more nuanced view of market processes is called for than the institution-free textbook account of price equilibration via supply and demand.

Evidence on the role of market-supporting institutions is accumulating. Much of the evidence comes from developing countries and countries transitioning away from communist central planning. Where markets work smoothly, in affluent countries, the market-supporting institutions are almost invisible. It is hard to find evidence of the existence of lemons markets in a country like the United States, because institutional solutions have evolved. By contrast, where markets work badly, in poor countries, the absence of institutions is conspicuous. A few examples are given in what follows.

### **Property rights and contracting**

Institutional innovation sometimes occurs even in affluent countries. An experiment in property rights has arisen in fisheries. Worldwide, fisheries are in crisis. Overfishing results from an externality: the costs of any one fisher's taking too many fish are mostly borne by others. Applying the idea of Ronald Coase (1960) of defining property rights to solve an externality, the New Zealand government has created, essentially, property rights in the fish. Fishers are assigned quotas that define, by species, their allowable fish catch. The quotas are tradable, so they end up with those fishers with the highest willingness to pay, which probably leads to an efficient allocation. Property rights in fish do not come for free, however, but require extensive, costly government monitoring (Grafton, Squires, and Fox, 2000). Military aircraft patrol the oceans. Each step of every single fish's journey from landing to final sale is documented, with catch reports, buyers' receipts, cold-storage records and export invoices being collated. Fishery inspectors police breaches. The costs of overseeing the quotas have yielded a return, as fish stocks have been successfully conserved.

Another property-rights experiment has occurred in residential land. In cities in every developing country there are squatters, poor people living on land to which they hold no legal rights. Ad hoc property rights exist even in the absence of formal legal

protections, as neighbourhood associations and the squatters themselves guard the land. However, the inability to appeal to the law brings some inefficiencies. Hernando de Soto (2000) argued that, if the impoverished squatters held land titles, they would acquire access capital markets, because they would then have collateral to offer. In Peru, following de Soto's advocacy, over a million squatter households were granted title to the land they occupied. The effects of this huge inauguration of property rights showed up, unexpectedly, not in the capital market but in the labour market. Householders' borrowing increased little, but hours worked outside the home by adult household members increased and hours worked by their children decreased (Field, 2003; Field and Torero, 2004). Without land titles, householders stayed at home to watch over their property, sending their children out to work. Holding land titles, they felt secure enough to enter the workforce. Establishing the market institution brought instant welfare gains. However, the gains came in an unforeseen form, illustrating the difficulty in general of anticipating the effects of institutional reform (McMillan, 2004)

With contracting, as with property rights, informal substitutes operate in the absence of formal institutions. Small firms make deals with each other and get finance, using personal networks and ongoing relationships to substitute for missing laws of contract and using retained earnings and trade credit to make up for a lack of access to financial markets (Fafchamps, 2004; McMillan and Woodruff, 2002). Large firms, also, can prosper without institutions, coping instead by cultivating favours from politicians. Where the lack of institutions shows up is for small firms wishing to grow. Needing to make large, discrete investments, they can no longer rely on retained earnings and trade credit, so they may be unable to grow if the financial market is underdeveloped. Needing to deal with increasingly many trading partners, they cannot continue to rely on personal connections but must start to use the law of contract. The firm-size distribution in a typical developing country shows a missing middle, with a lot of employment in tiny firms and quite a lot in large firms, but not much in mid-sized firms (Snodgrass and Biggs, 1996). The missing middle is a symptom of weak legal and regulatory institutions.

**Information transmission**

An archetypical lemons market existed in India in the 1970s (Klitgaard, 1991). Quality fresh milk was hard to find, because vendors routinely watered it down. Buyers could not assess the milk's butterfat content, and so the low-quality milk drove out the high-quality milk. Launching a campaign against adulterated milk, the National Dairy Development Board provided inexpensive machines to measure butterfat content as the milk moved from farmer to wholesaler to vendor. It also set up payment schemes making the price of milk reflect its measured quality and created brand names to give buyers trust in what they were getting. As a result of this coordinated initiative, quality improved and consumption rose.

The loan market is impeded by information asymmetries: both adverse selection—a lender may find it hard to distinguish whether any given loan applicant is a good credit risk—and moral hazard—a borrower, having received a loan, may have an incentive to default. Since these transaction costs are proportionately larger for small than for large loans, small lenders often pay exorbitant interest rates or are frozen out of the loan market. In Bangladesh's Grameen Bank and other microcredit banks, tiny loans are made to poor people via groups of borrowers. Each group member is held responsible for any other member's loan. Being neighbours, the group members know each other's business better than any banker, can monitor each other's use of the loans and can invoke social sanctions to discipline defaulters. Group lending is an elegant solution to the loan market's informational asymmetries.

The equity market relies heavily on institutions. For shareholders, who lack information about the firm's affairs, evaluating managers is difficult, and so a lemons market may arise. In many countries, lax oversights allow controlling shareholders to expropriate minority shareholders (Johnson et al., 2000). If the rules governing the financial markets are inadequate, investors are reluctant to buy stocks because they are unwilling to trust managers, and so firms do not get the finance they need. A well-functioning equity market relies on a complex set of interrelated institutions, formal and informal, to foster information flow (Black, 2001). First, reputations for honest dealings must be built up by auditors, law firms, investment banks and the business press. Second, there are self-regulating private-sector bodies such as industry associations as

well as the stock exchange, with its rules on listing firms' financial reporting and its sanction of delisting. Third, the equity market rests on state-provided mechanisms: not only laws requiring that investors receive accurate data, but also an activist regulator. The law's transaction costs (Glaeser and Shleifer, 2003) mean that a regulator supplements the courts in setting and enforcing the rules of the game.

## **Conclusion**

Market-supporting institutions ensure that property rights are respected, that people can be trusted to live up to their promises, that externalities are held in check, that competition is fostered and that information flows smoothly (McMillan, 2002). Without institutions, the promise of efficient markets goes unrealised.

## ***Bibliography***

- Akerlof, G. 1970. The market for 'lemons'. *Quarterly Journal of Economics* 84, 488-500.
- Black, B. 2001. The legal and institutional preconditions for strong stock markets. *UCLA Law Review* 48, 781-855.
- Coase, R. H. 1960. The problem of social cost. *Journal of Law and Economics* 3, 1-44.
- de Soto, Hernando, *The Mystery of Capital*. New York: Basic Books, 2000
- Fafchamps, M. 2004. *Market Institutions in Sub-Saharan Africa*. Cambridge: MIT Press.
- Field, E. 2003. *Entitled to work*. unpublished. Harvard University.
- Field, E. and Torero, M. 2004. *Do property titles increase credit access among the urban poor?* unpublished, Harvard University.
- Glaeser, E., and Shleifer, A. 2003. The rise of the regulatory state. *Journal of Economic Literature* 41, 401-425.
- Grafton, R. Q., Squires, D., and Fox, K. J. 2000. Private property and economic efficiency. *Journal of Law and Economics* 43, 679-714.
- Johnson, S., La Porta, R., Lopez-de-Silanes, F., and Shleifer, A. 2000. Tunneling. *American Economic Review Papers and Proceedings* 90, 22-27.
- Klitgaard, R. 1991. *Adjusting to Reality*. San Francisco: ICS Press.
- McMillan, J. 2002. *Reinventing the Bazaar*. New York: Norton.
- McMillan, J. 2004. Avoid hubris. *Finance and Development* 41, 34-37
- McMillan, J., and Woodruff, C. 2002. The central role of entrepreneurs in transition economies. *Journal of Economic Perspectives* 16, 153-70.
- North, D. 1991. Institutions. *Journal of Economic Perspectives* 5, 97-112
- Rothschild, M., and Stiglitz, J. E. 1976. Equilibrium in competitive insurance markets. *Quarterly Journal of Economics* 90, 629-50.
- Snodgrass, D. R., and Biggs, T. 1996. *Industrialization and the Small Firm*. San Francisco: ICS Press.
- Spence, A M. 1973, Job market signaling. *Quarterly Journal of Economics* 87, 355-374.