

Informational Barriers to Trade: The Role of Networks

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April 1999

These notes were prepared for the *Annual Bank Conference on Development Economics*, organized by the World Bank, April 29-30, 1999, Washington, D.C.

Markets cannot function well without three basic ingredients: well-defined property rights, because they are the objects of any exchange; enforcement of contracts, because the exchange must be meaningful and borrowing possible; information, because the parties to the exchange must agree on its content. It is the role of governmental institutions, be it governments themselves, NGO's or international institutions like the World Bank, to help securing the underpinnings of markets. Everybody, including economists, knows that guaranteeing these conditions fully is always very difficult. But in some situations, or in some markets, it is more difficult than usual.

A large volume of research has documented the importance of personal relationships in economic activity in developing countries (see for example the papers collected in Aoki and Hayami, forthcoming, or the examples discussed in the World Development Reports, 1997, and 1998-99). When formal arrangements are unreliable, difficult to access, or too costly, personal relationships provide valuable channels of information and enforcement, based as they are on familiarity, trust, and, if necessary, the possibility of punishing a cheating party by excluding him from the flow of regular transactions. Personal contacts are essential even in exchanges of homogenous goods: the survey in Fafchamps and Minten (forthcoming), for example, documents that Madagascar agricultural traders consider personal relationships the most important factor for business success. Similarly, historical studies of Western medieval markets, with legal institutions still in their dawn, have underscored the central role played by personal links. By coordinating group-wide boycotts, personal relations made possible exchanges between the group and strangers, expanding greatly the scope of trade and the possibility of mutual gains (Greif, 1993, Greif, Milgrom and Weingast, 1994). Looking at medieval Florence, John Padgett argues that in periods of shocks and transitions, personal relations may have determined the direction that the society's formal economic organization eventually took (Padgett, forthcoming).

Even when legal institutions are more firmly established, personal contacts can still be the most reliable channel for transmitting information. In developed economies, the difficulty of acquiring reliable information about a prospective employee or a potential borrower is a fundamental cause of inefficiencies in labor and capital markets. In these markets, informational barriers have been

extensively studied, together with the partial solutions that private agents can (and do) put in place to mitigate the problem. These range from signaling one's quality through some costly action, to establishing a commercial system of certification, to writing more elaborate contracts. But all of these methods are costly, and the more costly the more they are robust to manipulation. They are not substitutes for communicating the relevant information through trusted friends (or friends of friends). Poor, recent immigrants to new countries have always known this, and continue to rely on their conationals' networks for finding their first employment or their first loans (see for example, Portes, 1995).

The purpose of these notes is to argue that international trade presents the same information problems that have been identified in these markets, and the same weaknesses of enforcement that plague economies with unreliable or inaccessible courts. Indeed this is why cohesive ethnic groups dispersed among many countries have historically been so successful at identifying and securing business opportunities. Be it Overseas Chinese in East Asia, Indian and Pakistani traders in East Africa, Greek shipping families in 19th century European ports, or any other of many historical examples, the members of these groups usually share a close geographical origin, a language, often a religion, and a preference for personal and informal agreements, allowing them to act quickly and with little publicity. Their strategies make clear that they are exploiting the personal connections between group members to overcome obstacles to information and enforcement. Their success should make us rethink the importance of these obstacles in international markets.

With few exceptions (Grossman and Horn, 1988, Bagwell and Staiger, 1989, Bagwell, 1991), economists have neglected the difficulties of introducing a new product in a foreign market. Businessmen, on the other hand, know how hard it is to enter a new environment: the problem is not only convincing customers of the quality of their product, but also finding the right market niche, the right distributors, the right angle for dealing with bureaucracy or with advertisement. In short, the whole environment is unfamiliar, and the most important information of all, the goodness of fit between a product and the way it is marketed, is also the most difficult one to acquire, but through experience. As Swedish Trade Council export consultant Kent Goodman (quoted in Nothdurft 1992, p. 32) stated of his clients that are marginal or failed exporters:

"Sometimes their product isn't right for the market, or the country they chose was not a good fit, or their approach or agents are not right". It is here that a direct connection to someone who knows the country well is particularly valuable.

In two recent papers (Casella and Rauch, 1997, and Rauch and Casella, 1998), we have studied this problem positing that a successful trade venture requires a productive match between two partners (for example a producer and a distributor). But while in domestic markets everybody knows each other's type, and hence how good a match would be, in international markets traders discover their compatibility only after the match has been concluded. As expected, the information barrier reduces the volume of trade and the ability to exploit efficiently differences in countries' endowments and costs. World GDP falls.

Suppose now that a group of traders united by some common tie has members located in different countries. If a member of the group decides to use his ties and trade through the group, then he acquires, and reveals, all the relevant information. Alternatively he can always enter the anonymous market. From an aggregate point of view, the existence of the information-sharing group is an increase in the amount of information available to traders, and the outcome indeed is a higher volume of international trade, a realignment of international prices and an improvement in world GDP.

However, these preferential ties are available only to a subset of all traders, and we expect that the gains will not be shared equally by all. In fact, even if there is no systematic difference *ex ante* in the quality of the matches that members of the group as a whole would provide - relative to the remainder of the traders - the preferential ties are particularly valuable to those among them that, if well matched, are the most productive. These are the traders who choose to exploit the ties. The process of self-selection removes from the market some of its most desirable participants. As noted by a Hong Kong based merchant banker, referring to one of the dominant figures of the Hong Kong economy: "Li Ka-shing calls the boys before he calls the brokers" (Sender, 1991, p.31). Even in the presence of aggregate gains, the worsened composition of the market can hurt individuals who are excluded from the group.

Group members who, even in their best matches, are not too productive will choose to trade through the market because the complete information existing within the group would leave them

with very little bargaining power. But if they are distinguishable, for example because they belong to a specific ethnic group, by entering the market they effectively signal that they are not, on average, desirable partners. The final outcome can be discrimination, where majority traders refuse to match with individuals belonging to the specific ethnic group, even while accepting otherwise identical partners, and group members have no choice but to match among themselves. Discrimination reduces world trade and GDP. There is no initial difference between group members and non-members in terms of their attractiveness as matching partners. The only but crucial difference is that group members can overcome the informational barriers that hamper international trade. All other effects, culminating in active discrimination, stem from this single informational advantage.

A second and related obstacle to international trade that personal ties can help overcome is the difficulty of enforcement. Even among industrialized countries of similar cultures and economic development, national laws differs, and courts have been less than consistent in enforcing judicial awards rendered abroad. Businessmen needing predictability of the law must face the uncertainty that surrounds the resolution of international disputes. International conventions have tried to overcome the problem (the most important of these is the 1968 Brussels Convention on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters, among the countries of the European Union), but the unanimous opinion among legal scholars is that they have been remarkably ineffective: "There is a strong possibility that a judgement given by the courts of a given state should be unenforceable outside the territory of the state" (David, 1985, p.17).

A cohesive group can solve this difficulty because enforcement can be provided without recourse to the courts. Hence, for example, the informal and quick agreements that are part of the Overseas Chinese business practices. But in the absence of preexisting ties, can a group emerge endogenously, providing the public good that their market exchanges need?

The experience of international commercial arbitration provides a fascinating example through which we can approach the question. Arbitration is the most frequent mechanism for the settlement of private disputes in international trade, estimated to be invoked in more than 80 per cent of private international contracts (see the sources in Casella, 1996). The legal literature

agrees that "international arbitration is regarded by the international business community as the normal means of settling disputes arising from international transactions" (Schmitthof, in Schultsz and van der Berg, 1982, p.287), and that the recourse to arbitration is rising exponentially: "There is a clear evidence of something of a world movement [towards international arbitration]" (Kerr, Lord Justice of England, preface to Craig et al., 1990, p.xii). The growing acceptance of international arbitration parallels the growth of trade flows.

However, arbitration in the modern world is not a system of private enforcement. It finally relies on the enforcement power of the courts, and the story of its increased popularity is the story of the courts and the legislatures' recent willingness to recognize the legitimacy of arbitration awards and lend their authority in supporting these awards. In particular, it is the story of the disproportionate recognition of foreign arbitral awards, relative to foreign courts' decisions. In many countries the legal status of arbitration has undergone great changes in recent years, moving towards reduced court interference and simpler and stricter rules for enforcement, particularly with regard to international arbitration. England passed the Arbitration Act in 1979, France issued two decrees on arbitration in 1980 and 1981, Italy had a new law in 1983, the Netherlands and Portugal in 1986, Switzerland in 1987, Spain in 1988.

Why is international arbitration favored over courts' decisions; and why is it granted more latitude than domestic arbitration? The answer appears to be that international arbitration is understood to apply to a particular group of individuals, sophisticated enough to be allowed to waive some of the courts' basic protections (for example, the right of appeal¹); specialized enough to require judgements from tribunals up-to-date on the usages of the trade; involved in deals of sufficient size to justify the high fees that these tribunals collect. "International arbitration is the jurisdiction of the business circles engaged in international trade" (Jakubowski in Schultsz and van der Berg, 1982, p.178). The largest international arbitration center have begun to publish a selection of arbitral awards. They are acquiring the role of precedents, invoked in successive decisions and giving concrete content to the abstract concept of *lex mercatoria*, an evolving body of legally binding resolutions not founded on any national law.

¹British law recognizes the right of parties to waive future appeals against arbitral awards only in the case of international disputes.

Although the establishment of international arbitration has favored the growth of international trade, it has also meant that an increasing share of disputes, and in fact those posing some the most complex and novel questions of law, have not found their way to the courts and not contributed to the development of the regular jurisprudence. Thus, as in the case discussed above of preferential information among members of a group, the development of a parallel channel devoted to the needs of a subset of all traders may at the same time have positive aggregate effects, but worsen the functioning of the common institution freely available to all (Casella, 1996). The distributional effects can be questioned on equity grounds, but risk also to engender popular resentment towards the partial solutions that private agents have been able to engineer.

The combination of aggregate benefits with declined performance of the anonymous institution, be it a market or a non-discriminatory public good, is a direct consequence of addressing problems of information or enforcement through the personal links of a network. Self-selection in the use of the network isolates agents or projects that have more to gain from revealing their true types and from guaranteeing that contracts are unambiguous and binding. The loss of these transactions lowers the average quality of the remaining trades, creating a “lemon” effect that harms individuals who do not interact through the network (see Montgomery, 1991, for an elegant application to labor markets).

This result is also, I believe, the central challenge for policy. On one hand, the recourse to personal connections is natural, universal and effective, a cheap way of acquiring information; often, when complex agreements are difficult to enforce, the only way. Policy should acknowledge and exploit these channels, using them as seeds to reach people and spread information further. On the other hand, we have little understanding of what leads one network to form and flourish, while other potential ones never come into being. Simply paving the way for the connections that do exist ignores the negative consequences on those who are excluded and can dangerously feed their resentment.

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