

RESEARCH SPOTLIGHT

Ties that Bind

BY TIM SABLİK

Adam Smith famously observed that people acting in their own self-interest are often “led by an invisible hand” to advance the interests of society as a whole. There are cases, however, where an economic agent is protected against losses from his risk-taking, allowing him to take risks that are personally optimal, but which negatively affect a third party. This is referred to by economists as moral hazard.

Moral hazard is commonly an issue in the context of insurance; for example, a homeowner might opt to spend less time and money protecting his property from theft because his insurance policy would cover the losses. Thus, insurance companies typically limit moral hazard by requiring deductibles and by increasing premiums following a pattern of losses.

Since moral hazard can lead to undesirable economic outcomes and hamper market transactions, economists are interested in learning how parties avoid this inefficient behavior. C. Kirabo Jackson of Northwestern University and Henry Schneider of Cornell University explore the issue of moral hazard in the New York City taxi industry. They look at taxi drivers who lease their vehicles from owners who pay the costs of maintenance and repair. The drivers keep all fares they earn, minus lease fees and an accident deposit, capped by the city’s Taxi and Limousine Commission (TLC) at \$650 and \$500, respectively. The costs of vehicle maintenance or accident repair can run much higher, and since the drivers are not liable for the majority of the downside, but reap the full profits of the upside, they are susceptible to significant moral hazard. They might drive more aggressively to pick up more passengers, unconcerned by the increased wear and damage this inflicts on the car.

In their article, Jackson and Schneider ask whether leasing to a driver from the same country of birth might reduce the moral hazard problem, and thereby reduce the owner’s losses. They theorize that social connections could provide the pressure that formal contracts lack in this situation. Using data on New York taxi drivers from 2005 and 2007, they find that 44 percent of drivers lease “in-network” (that is, from owners with the same country of origin). The authors then perform a series of tests to isolate the causal effects of driving in-network on driving behavior, which they measure using summonses for TLC violations.

In order to isolate the in-network driving effect, the authors must control for the effect of individual driver ability. They do this in two ways. First, they look at the

records of the drivers who were in-network in one period and out of network in another. Presumably, driving ability did not systematically change between the two periods. Although the sample of drivers who switched networks is relatively small (3.2 percent of the sample), the authors note that this subsample is representative of the whole in terms of driving experience, age, and countries of birth.

In addition, Jackson and Schneider test a second model incorporating the distance between residences of drivers and owners from the same country. They reason that drivers who happen to live close to owners from the same country will be more likely to lease from them. Proximity of owners and drivers from the same country of origin is therefore correlated with in-network driving, but not correlated with driver ability,

allowing the researchers to isolate the in-network effect on driving outcome.

In the sample as a whole, approximately one in three drivers receives a summons in a six-month period, or an average of 0.39 summonses per driver. Testing the data without controlling for ability, the authors find that in-network drivers have 0.09 fewer summonses per six-month period, which is a fairly small improvement. When controlling for individual ability by using the data for drivers who switched networks, however, the researchers find that in-network drivers have 0.334 fewer summonses per six-month period, a statistically significant improvement. The results from the second test method are similar, though statistically somewhat weaker.

The authors then explore whether the strength of the owner’s and driver’s social network motivates this improvement in driver performance. The researchers measure social network strength as the density of residents from a particular country who live in a neighborhood. They posited that a greater density of residents from the same country leads to a stronger social network, and in-network drivers who are part of a strong social network will have greater incentive to perform better or risk being cut off from that network of support.

In fact, this is what the authors find: The interaction between leasing in-network and the owner’s network density had the greatest influence on driving outcome. This suggests that the ability of the owner to enforce social sanctions on the driver accounts for most of the improved behavior demonstrated by in-network drivers.

Jackson and Schneider conclude that even in developed economies, social ties can reduce the effect of moral hazard in cases where formal contracts might fall short. **RF**

C. Kirabo Jackson and Henry S. Schneider. “Do Social Connections Reduce Moral Hazard? Evidence from the New York City Taxi Industry.” *American Economic Journal: Applied Economics*, July 2011, vol. 3, no. 3, pp. 244-267.