## Uneven Information Causes Market Failure? It Just Ain't So!

BY JOSHUA C. HALL

In a famous 1970 paper, economics Nobel Laureate George Akerlof used the market for used cars to show how differences in information between buyers and sellers ("asymmetric information") could lead a market to shrink or collapse entirely. A large variety of markets have been said to fail because of asymmetric information, from all different types of insurance markets to the market for translators. In many cases these market-failure arguments have been used as a justification for government intervention. The problem with many, if not all, of these arguments, however, is that they fail to appreciate the incentives market participants have to find ways to overcome the information differences.

A good example of this tendency to see market failures everywhere is Phil Birnbaum's article, "Are Traded Players Lemons," in the 2005 issue of The Baseball Research Journal. Birnbaum suggests that the trade market for major-league baseball players might suffer from asymmetric-information problems. As evidence he presents data showing that "exceptional" traded players seem to do worse than one would predict using their statistical records. Comparing similar players who were traded and those who were not, he finds that non-traded players were 2-3 times as likely to meet their projected statistics as traded players. From this he concludes that traded players are often damaged goods and thus the player trade market might be a "lemon market" similar to the used-car market.

While Birnbaum does not argue for government intervention in the market for baseball players, further examination of this argument is useful because it can tell us a lot about why asymmetric information is gen-

erally not a problem for other markets where government intervention is prevalent. To find out why, let's start by examining why the used-car market is not filled with lemons.

In his original article Akerlof noted that two outcomes are possible in markets where sellers have more information than buyers. If buyers cannot distinguish between high-quality and low-quality cars, for example, they will only be willing to offer a price equal to the average quality of existing used cars on the market. A potential seller of a high-quality car then will not sell his car since he cannot receive a price commensurate with its value. Over time this information asymmetry could reduce the number of high-quality cars in the used-car market until the market fails because only "lemons" are left.

The second possible outcome is that buyers invest time and effort to reduce uncertainty over the quality of products. In the used-car market, this can be done in a variety of ways. For example, a few years ago I purchased a 20-year-old Mercedes at a garage sale. When I asked the owner about the car's history, he showed me his original bill of sale and a detailed maintenance history from a well-known local mechanic. Asymmetric-information problem overcome! More generally, warranties, brand names, and reputation help to mitigate car-buyer uncertainty over quality.

The important thing to note is that while some sellers have an incentive to try to use asymmetric information to their advantage, many sellers and all buyers have the incentive to find ways to overcome the asymmetry

Joshua Hall (joshua.c.hall@gmail.com) is an assistant professor of economics at Beloit College.

problem. As a result, the market for used cars looks more like the second outcome than the first. It is not filled with lemons because sellers of high-quality used cars have an incentive to provide assurances such as warranties that their cars are of high quality. The lemons problem is mitigated because buyers and sellers want trades to happen and thus have the incentive to create institutional solutions that facilitate exchange. The problem disappears when the buyers have assurance of the quality of a used car and thus the seller can charge a price high enough to make it worthwhile to sell. When the used-car market is viewed from a market-process perspective, it is clearly not a lemons market.

What about the market for baseball players? That market is also unlikely to be a market for lemons

When market

participants have

the incentive to

mechanisms to

facilitate that

exchange.

exchange, they also

have the incentive

to create institutional

because it has several institutional mechanisms to provide buyers with assurance of player quality. First, data on the performance histories of players, as well as their medical histories, is made available to trading partners at the time of the exchange. In addition, physicals are a part of every baseball trade—the baseball equivalent of taking a used car to your mechanic to verify the quality of the vehicle. Finally, in the market for baseball players sellers are also buyers. General managers need to be concerned about their reputation and the

ability to make future trades, thus they are more likely to make mutually beneficial trades than attempting to profit from asymmetric information. Given the high number of high- and low-quality players traded each year, it appears that these institutional mechanisms work quite well in facilitating exchange.

How do we reconcile this with Birnbaum's findings that traded players underperform projections at much higher rates than non-traded players? Assuming that Birnbaum's research is correct, is the only explanation that traded players must be lemons? The answer is no.

To see why, consider a car market with two types of individuals: those who do their own maintenance and those who cannot. Individuals who cannot do their own maintenance will sell their cars as maintenance begins to increase. On the other hand, those who do their own maintenance prefer to buy used cars because they get them at a discount and can fix them cheaply. If traded and non-traded cars in this market were analyzed, it would appear that traded cars are lemons. The difference between groups, however, does not arise because of asymmetric information but from differences in valuation.

## More-Valued Bundle

This seems to fit both Birnbaum's description and the baseball-player market. Teams are exchanging a bundle of players and their contracts for a bundle of players and contracts they value more, even if the players they receive are going to decline in overall performance. The

fact that Birnbaum looks only at "exceptional" players could be why he finds that most traded players decline in performance. For example, in 1974 the Atlanta Braves traded Hank Aaron to the Milwaukee Brewers. According to Birnbaum, Aaron was damaged goods in the sense that he underperformed after the trade. Does this mean that Aaron was a lemon? Of course not. The Brewers had just had their sixth straight losing season and wanted Aaron for his ability to draw fans to the ballpark as much as for his ability to hit home runs.

Even if a player's overall stats fall after the trade, he still might be more valuable because his *marginal contribution* is higher. After Jeff Conine was traded from the Baltimore Orioles to the Florida Marlins for the stretch drive in 2003, he often batted seventh in the order or was used as a pinch hitter; with the Orioles he had regularly batted cleanup. As a result, he averaged one fewer at bat per game and his overall stats were much lower. His contribution to winning was likely higher, however.

When market participants have the incentive to exchange, they also have the incentive to create institutional mechanisms to facilitate that exchange. The failure to recognize and appreciate these private mechanisms for overcoming asymmetric information—not the failure of actual markets—is often what leads to mistaken calls for government regulation.