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**Why Is It So Difficult To Buy a High-Quality Used Car?**

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"I discovered that the informational problems that exist in the used car market were potentially present to some degree in all markets. "

—George A. Akerlof, Nobel Prize winner, 2001

Are you in the market for a vehicle? During the 2007-09 recession, new vehicle sales plunged to their lowest levels in nearly 30 years. They have since fully recovered as people replace their aging vehicles with shiny new cars, trucks, vans, and sport utility vehicles. Prices of new vehicles, however, are at all-time highs, leading many buyers to look for used vehicles. It can be a challenge, though, for buyers to figure out whether they are getting a good deal. The seller generally knows far more about the vehicle. Even with careful examination, the buyer still likely won't know everything the seller knows. When one party knows more about the product than the other party, there is "asymmetric information." In the case of a used car, the seller has more information and the advantage. The opposite can also be true in a transaction—the buyer can have more information and the advantage.

### **The Market for Lemons**

The used-car market is often used to discuss the implications of asymmetric information. In this market, sellers have greater knowledge about the condition and quality of their cars than buyers. For example, a seller is likely to know about engine or transmission problems, the maintenance history, and any defective equipment. In other words, the seller is likely to know whether the car is a "lemon" (a car with defects). The buyer, however, is at a disadvantage. Even with a careful visual inspection or a test drive, defects can be missed or hidden. The seller is in the driver's seat (so to speak) in this market.

To better understand asymmetric information, consider a buyer looking for a particular car make and model. Let's call it the Economy car Utility Maximizer. The buyer is willing to pay up to \$14,000 for a high-quality used car (a "cherry") but only \$10,000 for a low-quality used car (a lemon). Imagine she visits two sellers advertising 2012 Utility Maximizers. One seller is selling a cherry; the other is selling a lemon. Each seller knows the history of the car for sale—they have good information and know whether it is a cherry or a lemon. The buyer, however, doesn't see much difference between the two cars. She can't tell whether either car is a cherry or a lemon. In other words, there is asymmetric information. As such, because

she can't know for sure, the buyer assumes that neither car is of high quality. So, she is willing to only offer a price below that of a high-quality car: \$12,000.

Now consider the larger used-car market. Other buyers behave in similar ways. Because they cannot distinguish between lemons and cherries, they offer prices somewhere in the middle. Some sellers who really do have high-quality used cars aren't willing to sell them below their true value, so they keep the cars instead. Sellers of low-quality cars, however, gladly sell their lemons. Low prices, then, reduce the overall quality of used cars on the market, leading to a market dominated by lemons. With fewer cherries on the market, buyers offer even less, further reducing the quantity of high-quality cars on the market. This cycle leads to market inefficiency because transactions that would have benefited both buyers and sellers fail to take place. That is, although sellers are willing to sell high-quality used cars to buyers at a fair price, the transactions do not occur because the buyers are unsure about the condition of the cars.

### **Closing the Asymmetric Information Gap**

Regulation has helped buyers receive better information. The 1975 Magnuson-Moss Warranty Act (also known as the Lemon Law) regulates warranties on vehicles (and other consumer goods), and a variety of state laws (also referred to as lemon laws) protect consumers from defective products, including vehicles.

To reassure used-car buyers—and to get them to pay a higher price—some sellers provide warranties or "certify" their highest-quality used cars. Generally, a car labeled certified has been inspected and repaired (if necessary) to meet high quality standards and may include a warranty. Buyers can also take several steps to help reduce the asymmetric information gap. First, research can help steer them to a generally more-reliable car. Third-party sources, such as Consumer Reports and J.D. Power, collect and analyze data to estimate the average reliability and quality of certain car models.

Once a buyer finds a car, various sources can provide additional information about that car. For example, auto mechanics can look for defects hidden or overlooked. For a fee, they will look "under the hood" and run diagnostic tests. Additional information (such as maintenance, odometer, and accident history) is available by researching the car's VIN (vehicle identification number). Various companies will provide a VIN report for a fee.

In the future, buyers may be able to easily obtain even more information about a car's history from the car's event data recorder (EDR), which is similar to the "blackbox" on an airplane. Today, nearly all new cars have an EDR. These microcomputers collect data related to safety and accidents, including speed, braking, seatbelt use, and airbag deployment. EDRs are likely to become more powerful and collect more data over time.

### **Consider the Cost**

In the rush to close the asymmetric information gap, it is important to realize that obtaining information can be costly. Some information may have explicit costs (fees or subscriptions), while others have implicit, or opportunity, costs. Any time you spend researching a product is time you could have spent doing something else. Therefore, the more expensive a transaction is, the more beneficial your research may be. So it's wise to seek out information before buying a house or car or choosing a college but less important for choosing a frying pan or a stapler.

### **Other Markets with Asymmetric Information**

Other markets also have the challenge of asymmetric information. In the insurance market, for example, buyers usually have more information than sellers (insurance companies). The person wanting health insurance has more information about his or her current health than the insurance company. This imbalance can lead to two potential problems in the health insurance market. The first is adverse selection: People with health problems are more likely to buy health insurance than healthy people, who might decide they don't need health insurance. This imbalance can create a pool of insured people with more health problems than the general population. If this is the case, health insurance companies will likely pay more claims and charge higher premiums. The Patient Protection and Affordable Care Act has attempted to reduce adverse selection by creating financial incentives to encourage all people (even the young and healthy) to buy insurance.

The second potential pitfall is moral hazard: People with insurance tend to take on more risk (knowing insurance will pay some of the cost if anything bad happens) than they would otherwise. This increase in risky behavior could increase the number of claims insurance companies must pay and result in higher premiums. Insurance companies attempt to learn about a potential customer's health and other habits before granting medical or life insurance to reduce the risk to the company and

ensure an appropriate monthly premium is charged.

Credit markets also notably feature asymmetric information problems. A potential borrower has better information about his or her own ability and willingness to repay a loan than the lender. Lenders attempt to learn about potential borrowers' credit and financial history from credit reports. This information improves the ability of lenders to choose whom they should lend to and what interest rate they should charge.

Finally, asymmetric information problems also plague labor markets. Job seekers know more about their own job skills and work ethic than potential employers. Employers generally conduct interviews and check references but may also give assessments and seek additional information online, including on social media. In addition, some employers review credit reports, require drug testing, and/or perform a criminal background check.

### **Conclusion**

When one party to a transaction has more information than the other, the party with more information has the advantage. This circumstance is a problem not only for the party with less information, but also for the market itself as transactions that would have benefited both buyers and sellers fail to occur. For example, even though some people are willing to sell high-quality cars for a suitable price, buyers won't pay top dollar because they are unable to assess a car's true condition. So, the car owners won't sell, and the beneficial transactions never occur. However, the growing availability of information— if you seek it out— may help close the asymmetric information gap.

## 中文译文：

### 为什么买一辆高质量的二手车如此困难？

“我发现二手车市场中存在的信息问题在所有市场中都有可能在一定程度上存在。”  
——乔治·A·阿克洛夫，2001 年诺贝尔奖获得者

你想买一辆车吗？在 2007-09 年的经济衰退期间，新车销量跌至近 30 年来的最低水平。随着人们用闪亮的新车、卡车、厢式货车和运动型多用途车替换老化的车辆，这些问题得到了充分的关注。然而，新车价格创下历史新高，导致许多买家开始寻找二手车。不过，对于买家来说，要想弄清楚他们是否得到了一笔好交易，这可能是一个挑战。一般来说，卖方对车辆的了解要多得多。即使仔细检查，买方仍可能不知道卖方知道的一切。当一方比另一方更了解产品时，就会出现“信息不对称”就二手车而言，卖方拥有更多信息和优势。相反的情况也可能发生在交易中——买方可以获得更多的信息和优势。

## 柠檬市场

二手车市场经常被用来讨论信息不对称的影响。在这个市场上，卖方比买方更了解其汽车的状况和质量。例如，卖方可能知道发动机或变速箱问题、维护历史和任何有缺陷的设备。换言之，卖方很可能知道这辆车是否是“lemon”（一辆有缺陷的车）。然而，买方处于不利地位。即使进行仔细的可视化检查或试驾，也可能会遗漏或隐藏缺陷。可以说，卖方在这个市场上处于领先地位。

为了更好地理解不对称信息，考虑一个买家寻找特定的汽车品牌和型号。让我们称之为经济型汽车效用最大化器。买家愿意为一辆高品质的二手车（樱桃）支付高达 14000 美元，但为一辆低质量的二手车（柠檬）只支付 10000 美元。想象一下，她拜访了两位销售商，为 2012 效用最大化者做广告。一个卖家在卖樱桃；另一个是卖柠檬。每个卖家都知道待售汽车的历史——他们有很好的信息，知道它是樱桃还是柠檬。然而，买主并没有发现这两辆车有什么不同。她分不清这两辆车是樱桃车还是柠檬车。换句话说，信息不对称。因此，由于她不能确定，买方认为这两辆车都不是高质量的。因此，她只愿意提供低于高品质汽车的价格：12000 美元。

现在考虑更大的二手车市场。其他买家也有类似的行为。因为他们无法区分柠檬和樱桃，所以他们提供的价格在中间。一些确实拥有高品质二手车的卖家不愿意以低于其真实价值的价格出售，因此他们保留了这些车。然而，低质量汽车的销售者很乐意出售他们的柠檬。因此，低价降低了市场上二手车的整体质量，导致市场以柠檬为主。由于市场上樱桃的数量越来越少，买家提供的价格甚至更低，这进一步减少了市场上高品质汽车的数量。这种循环导致市场效率低下，因为原本可以让买卖双方都受益的交易未能发生。也就是说，尽管卖家愿意以低价向买家出售高品质二手车，但交易不会发生，因为买家不确定汽车的状况。

## 弥合信息不对称鸿沟

监管帮助买家获得了更好的信息。1975 年的《马格努森-莫斯保修法》（也称为柠檬法）对车辆（和其他消费品）的保修进行了规定，许多州法律（也称为柠檬法）保护消费者免受缺陷产品的影响，包括车辆。

为了让二手车购买者放心，并让他们支付更高的价格，一些卖家提供保修或“认证”他们最优质的二手车。通常，已检查和维修（如有必要）**carlabeled certified**，以满足高质量标准，并可能包括保修。买家还可以采取一些措施来帮助缩小不对称信息差距。首先，研究可以帮助他们转向一种更可靠的汽车。第三方来源，如消费者报告和 **J.D.Power**，收集和分析数据，以估计某些车型的平均可靠性和质量。

一旦买家找到一辆车，各种来源可以提供有关该车的其他信息。例如，汽车技师可以查找隐藏或忽略的缺陷。收费后，他们将“秘密”检查并进行诊断测试。其他信息（如保养、里程表和事故记录）可通过搜索车辆的 **VIN**（车辆识别号）获得。各公司将免费提供 **VIN** 报告。

未来，买家可能会很容易从汽车的事件数据记录器（**EDR**）中获得更多关于 **acar** 历史的信息，这类似于飞机上的“黑盒子”。如今，几乎所有新车都有 **EDR**。这些微型计算机收集与安全 and 事故相关的数据，包括速度、制动、安全带使用和气囊展开。随着时间的推移，**EDR** 可能会变得更加强大，并收集更多的数据。

## 考虑成本

在急于弥合不对称信息差距的过程中，重要的是要认识到获取信息的成本可能会很高。一些信息可能有明确的成本（费用或订阅），而其他信息则有隐含的成本或机会成本。你花在研究产品上的任何时间都是你本可以花在做其他事情上

的时间。因此，交易越昂贵，你的研究可能越有益。因此，在买房、买车或选择大学之前，最好先了解一下相关信息，但在选择煎锅或订书机时，就不那么重要了。

## 信息不对称的其他市场

其他市场也面临信息不对称的挑战。例如，在保险市场，买方通常比卖方（保险公司）拥有更多的信息。想要健康保险的人比保险公司有更多关于他或她目前健康状况的信息。这种不平衡可能导致健康保险市场中的两个潜在问题。第一个是逆向选择：有健康问题的人比健康人更有可能购买健康保险，健康人可能会决定他们不需要健康保险。这种不平衡会造成一个比一般人群有更多健康问题的参保人群。如果是这样，健康保险公司可能会支付更多的索赔，并收取更高的保费。

《患者保护和平价医疗法案》试图通过建立财政激励措施来减少逆向选择，鼓励所有人（即使年轻健康）购买保险。

第二个潜在陷阱是道德风险：有保险的人往往比没有保险的人承担更多的风险（知道如果发生任何不好的事情，保险会支付一些费用）。这种风险行为的增加可能会增加保险公司必须支付的索赔数量，并导致更高的保费。保险公司在提供医疗或人寿保险之前，试图了解潜在客户的健康和其他习惯，以降低公司面临的风险，并确保每月收取适当的保费。

信贷市场也明显存在信息不对称问题。潜在借款人比贷款人更了解自己偿还贷款的能力和意愿。贷款人试图从信用报告中了解潜在借款人的信用和财务历史。这些信息提高了贷款人选择贷款对象和利率的能力。

最后，信息不对称问题也困扰着劳动力市场。求职者现在比潜在雇主更关心自己的工作技能和职业道德。雇主通常会进行面试和查阅参考资料，但也可能会进行评估，并在网上（包括社交媒体）寻求更多信息。此外，一些雇主审查信用报告，要求进行药物测试和/或进行初步背景调查。

## 结论

当交易的一方比另一方拥有更多信息时，拥有更多信息的一方具有优势。这种情况不仅对信息较少的一方来说是一个问题，而且对市场本身也是一个问题，因为本可以使买卖双方都受益的交易未能发生。例如，即使有些人愿意以合适的价格出售高品质的汽车，买家也不会支付高价，因为他们无法评估汽车的真实状况。因此，车主不会出售汽车，也不会发生有益的交易。然而，不断增长的信息



可用性——如果你能找到它，可能有助于缩小不对称的信息差距。