

Why Have Used Car Prices Risen So Fast?

Since 1981 used car prices have climbed at double digit annual rates, making them one of the fastest rising components of the consumer price index (CPI). In contrast, the prices of new cars have lagged behind the overall CPI. Some of this difference stems from the method the CPI uses to calculate new and used car

price inflation. But more than half reflects economic factors that have affected the used car market.

Part of the discrepancy between used and new car prices arises because the CPI treats their quality changes differently. The new car price index is adjusted for the costs of improvements. Costs of government-mandated changes, such as better fuel efficiency and safety measures, as well as other new features are counted as increases in real expenditures and not as inflation. This is not true for used car prices; no adjustment is made to offset the price impact of changing automobile quality.

The amount these quality changes contribute to *used* car price inflation can be estimated by using the difference between the rates of increase in quality-adjusted and not-quality-adjusted *new* car prices. According to this measure, between 1972 and 1980 almost the entire spread between CPI used and new car inflation can be attributed to quality changes in automobiles (table). But since then, only about forty percent of the divergence is explained by quality adjustment differences. The remainder probably has been caused by several economic factors that have tightened the used car market.

First, the voluntary restraints on Japanese imports since May 1981 have limited the supply of imported cars, especially the less expensive models with few options. * Consumers, looking for a less costly alternative to a new domestic car, have been forced into the used car market. Naturally, this puts pressure on prices in the used car market.

Second, new cars have become less affordable for more people, particularly since 1980. For example, between 1973 and 1980, the amount of time it took the

*In 1983 the average price of imported cars exceeded the average price of domestic cars for the first time, despite the stronger dollar. This relative price appreciation in imports is the combined result of a more upscale model mix and premiums to dealers because of short supplies.

Average Annual Rates of Car Price Change

In percent

Period	Overall CPI	Used Car Inflation (CPI)	New Car Inflation (CPI)*	Used Car Inflation (Quality Adjusted)†
1972-I to 1981-I	7.9	9.1	5.8	5.6
1981-II to 1984-II	5.0	15.7	3.8	10.5

*CPI new car inflation excludes costs of quality changes

†Quality Adjustment is based on the difference between CPI and Bureau of Economic Analysis measures of new car prices
The latter does not adjust for the costs of quality changes

average worker to earn the cost of a new car rose from about 28 weeks to 32 weeks. Since then it has risen to almost 38 weeks, more than double the rate of increase in the previous period. As a result, consumers now keep their cars almost two years longer (currently for 7.4 years on average) and finance them for about a year longer (currently about 48 months on average). In effect, the supply of used cars in the market has been reduced further by this trend toward keeping automobiles longer.

Finally, it is possible that inadequate production of some domestic auto models has led to higher used car prices. Certain popular new models, especially large-size cars, have been in short supply during this expansion, raising demand for similar-sized used cars. Also, increased demand for used cars may have resulted from resistance by some consumers to legally-mandated quality changes (such as unleaded gasoline) in new models, changes that are not yet completely included in the used car stock.

In conclusion, quality adjustment is sufficient to explain the gap between new and used car inflation between 1972 and 1980. Since then this gap has widened. Economic factors as well as this technical factor seem to be behind the large contribution used cars have made to the increase in the CPI so far in this expansion.