



The Estimated True Values of New 2007 Big Three Vehicles

By James Bleeker

2010-04-19

The following table provides the estimated true values and ranges of true values of Big Three vehicles for model year 2007. *The column entitled "Discounted Fractional Loss from Accelerated Deterioration of Big Three Vehicles" should provide some guide for subsequent years.*

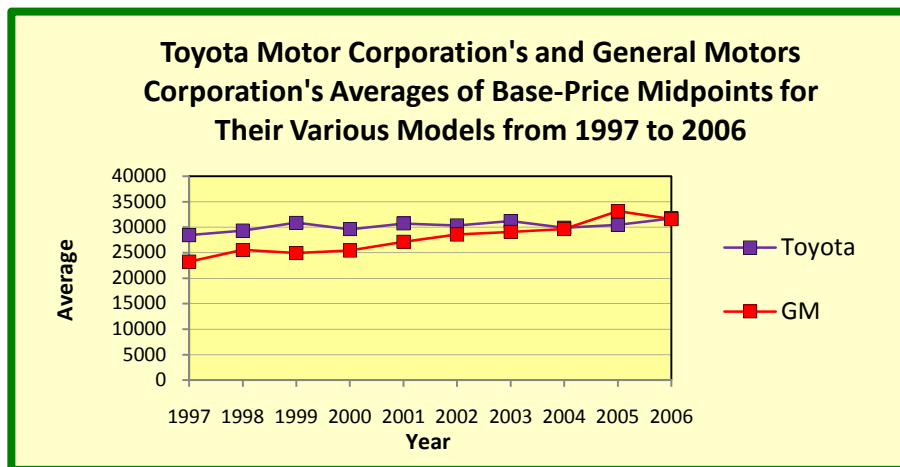
True Value Estimates of the Big Three's 2007 Vehicles Estimated Manufacturer Suggested Retail Price Ranges and Averages for Ford Motor and Three of Its Marques, General Motors Corporation and Six of Its Marques, and the Chrysler Group and Three of Its Marques, the Estimated 3-Year Fractional Loss of True Value Resulting from Accelerated Deterioration of Big Three Vehicles Discounted to the Present at the Rate of 6% per Annum, Compounded Annually, and the True Value Estimates for Typical 2007 Vehicles by the Big Three and Each of Their Motor Vehicle Lines						
Manufacturer	Line	Estimated 2007 M.S.R.P. Range	Estimated 2007 M.S.R.P. Average	Discounted Estimated Fractional Loss from Accelerated Deterioration of Big Three Vehicles	Estimated 2007 True Value Range*	Estimated 2007 True Value Average
Ford	Lincoln	28,995-52,305	\$43,482	-0.46	15,655-28,245	\$23,480
Ford	Mercury	20,595-32,325	\$27,834	-0.46	11,120-17,455	\$15,030
Ford	Ford	15,475-38,950	\$27,035	-0.49	7,890-19,865	\$13,790
Ford Motor Company		15,475-52,305	\$30,104	-0.46	7,890-28,245	\$16,255
General Motors	Buick	24,580-30,265	\$29,530	-0.49	12,535-15,435	\$15,060
General Motors	GMC	21,045-44,645	\$33,837	-0.51	10,310-21,875	\$16,580
General Motors	Cadillac	39,975-86,985	\$56,303	-0.52	19,190-41,755	\$27,025
General Motors	Saturn	15,675-26,000	\$22,319	-0.42	9,090-15,080	\$12,945
General Motors	Chevrolet	11,200-54,290	\$29,305	-0.51	5,490-26,600	\$14,360
General Motors	Pontiac	18,270-31,290	\$24,392	-0.51	8,950-15,330	\$11,950
General Motors Corp.		11,200-86,985	\$32,701	-0.51	5,490-41,755	\$16,025
Chrysler Group	Jeep	23,340-34,825	\$29,607	-0.50	11,670-17,415	\$14,800
Chrysler Group	Chrysler	21,550-39,310	\$30,622	-0.45	11,855-21,620	\$16,840
Chrysler Group	Dodge	16,440-36,355	\$27,665	-0.49	8,385-18,540	\$14,110
Chrysler Group		16,440-39,310	\$29,081	-0.49	8,385-21,620	\$14,830

* The True Value range of each company is the True Value range of its marques.

The computations for these true value estimates are quite involved.

Note What appears below is a summary of what appeared in an Auto on Info article dated November 2006.

We begin with the observation that in the past many U.S. consumers have valued a new vehicle by the number of features it has without regard to the model's reliability and durability. The following chart helps depict this; the mean of the base-price midpoints is the average of the midpoints of the base-price range of each model.



We assume that Toyota vehicles bare true value, that is, that the U.S. marketplace has properly priced vehicles by Toyota Motor Corporation.

We draw upon Toyota age-equivalent estimates for typical 1998 Big Three vehicles. These estimates appear in the table below and are quite close to the [Toyota age equivalents for 1999](#).

We engage the assumptions that Toyota quality has been rather constant and that the gap between Toyota quality and Big Three quality has remained rather steady. Manufacturer shares of [Consumer Reports' Used Cars to Avoid](#) indicate that this is, in large measure, the case; however, products by Ford Motor Company have clearly improved some.

We (1) take the 1998 Toyota age-equivalent estimates for the Big Three and their brands at age 3 years and (2) look up the approximate fractions of original value that a typical Toyota retained in late 2006 at each of the corresponding age-equivalent estimates (from National Edition: N.A.D.A.: Official Older Used Car Guide: 1987 through 1998: Passenger Cars, Light Duty Trucks: May through August 2006, by using midpoints of model ranges but not weighing the midpoints by model sales).

We compute the gap between each of the fractions computed above and the fraction of original value that a typical Toyota vehicle retained in late 2006 at age 3 years. This gap gives the estimated fractional loss resulting from the accelerated deterioration of vehicles by the Big Three. The table on the following page provides these fractional losses.

<p align="center">Estimated Fractional Loss of True Value Resulting from Accelerated Deterioration of Big 3 Vehicles</p> <p align="center">Estimates in Years of When a Typical 1998 Model of Toyota Motor Corporation Will Be as Troublesome as Typical 1998 Models of Big 3 and Their Several Marques Were at Age 3 Years, the Approximate Fractions of Original M.S.R.P. that a Typical Toyota Vehicle Retains at Each Corresponding Age-Equivalent Estimate, the Approximate Fraction of Original M.S.R.P. that a Typical Toyota Vehicle Retains at Age 3 Years, and the Gap between the Two Fractions</p>					
Manufacturer	Line	Toyota Age-Eq. Estimate at 3 Years	Toyota Fractional Value at Age-Eq. Estimate	Toyota Fractional Value at 3 Years	Estimated Fractional Loss from Accelerated Deterioration of Big 3 Vehicles
Ford	Lincoln	13	0.23	0.78	-0.55
Ford	Mercury	13	0.23	0.78	-0.55
Ford	Ford	14	0.20	0.78	-0.58
Ford Motor Company		13	0.23	0.78	-0.55
General Motors	Buick	15	0.20	0.78	-0.58
General Motors	GMC	18	0.17	0.78	-0.61
General Motors	Cadillac	23	0.16	0.78	-0.62
General Motors	Oldsmobile	18	0.17	0.78	-0.61
General Motors	Saturn	10	0.28	0.78	-0.50
General Motors	Chevrolet	18	0.17	0.78	-0.61
General Motors	Pontiac	18	0.17	0.78	-0.61
General Motors Corporation		18	0.17	0.78	-0.61
Chrysler Group	Jeep	16	0.18	0.78	-0.60
Chrysler Group	Chrysler	12	0.24	0.78	-0.54
Chrysler Group	Dodge	15	0.20	0.78	-0.58
Chrysler Group		14	0.20	0.78	-0.58

We next discount the estimated fractional loss in value resulting from the accelerated deterioration of Big Three vehicles to the present (when the vehicles were brand new) at the rate of 6% per annum, compounded annually. This gives us the values appearing in the top table under the column entitled "Discounted Fractional Loss from Accelerated Deterioration of Big Three Vehicles."

For estimates of 2007 manufacturer and brand averages of model midpoints of manufacturer suggested retail prices (M.S.R.P.s), we multiply the 2006 values by 1.035, as the annual rate of growth of such, compounded annually, since 1997 has been 3.5%. These estimates appear in the top table under the columns entitled "Estimated 2007 M.S.R.P. Range" and "Estimated 2007 M.S.R.P. Average."

Finally, we (a) multiply each of the fractional loss values times each of the corresponding range and average values and (b) then subtract each product from the corresponding range or average value to obtain the values appearing in the columns entitled "Estimated 2007 True Value Range" and "Estimated 2007 True Value Average."

Caution

The foregoing computations do not take account of Big Three accelerated deterioration after the third year, and consequently, the estimated true value averages may overstate the worth of Big Three vehicles.

The following table summarizing results from an online survey of Auto on Info suggests that a knowledgeable consumer may offer much less than what the top table suggests is the true value of a Big Three vehicle.

<p align="center">Median Value of a New Big Three Vehicle as Assessed by Mini-Survey Respondents Reporting Ownership of a Reliable Two Product on or before July 8, 2005, by Manufacturer</p>					
Manufacturer	Big 3 Vehicle Valued at Only 50% of What Is Currently Asked	Big 3 Vehicle Valued at Nothing	Big 3 Vehicle Valued at Nothing Plus Respondent Would Require \$20,000+ per Year to Drive It	Big 3 Vehicle Valued at Nothing Plus Respondent Would Require \$200,000+ per Year to Drive It	Respondent Unwilling to Own a Big Three Vehicle under Any Circumstance
Toyota Motor Corporation				✓	
Honda Motor Company		✓			