RV Industry Forecast

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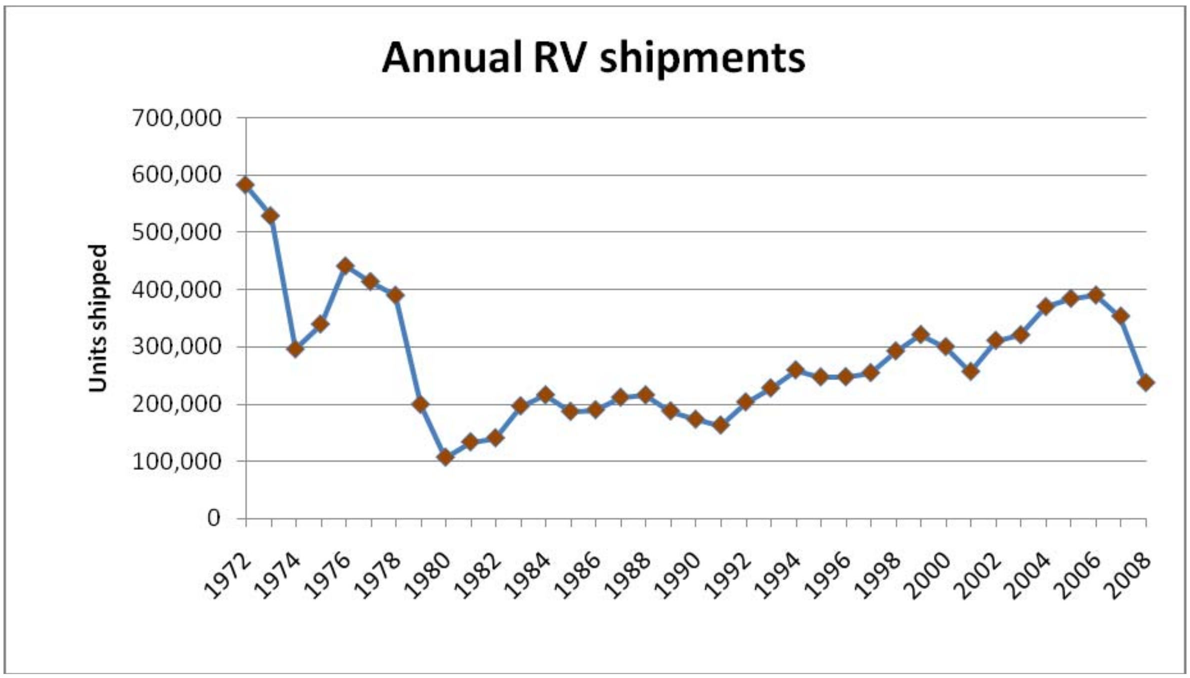
The recreation vehicle industry (motor homes and travel trailers) has experienced two distinct periods since 1972. From a peak of 583,000 units shipped in 1972, the industry declined at an average annual rate of 19 percent to 107,000 in 1980.[1] See Figure 1. This immense decline over eight years can be attributed to dramatic and unexpected increases in petroleum prices twice during the period.

Figure 1



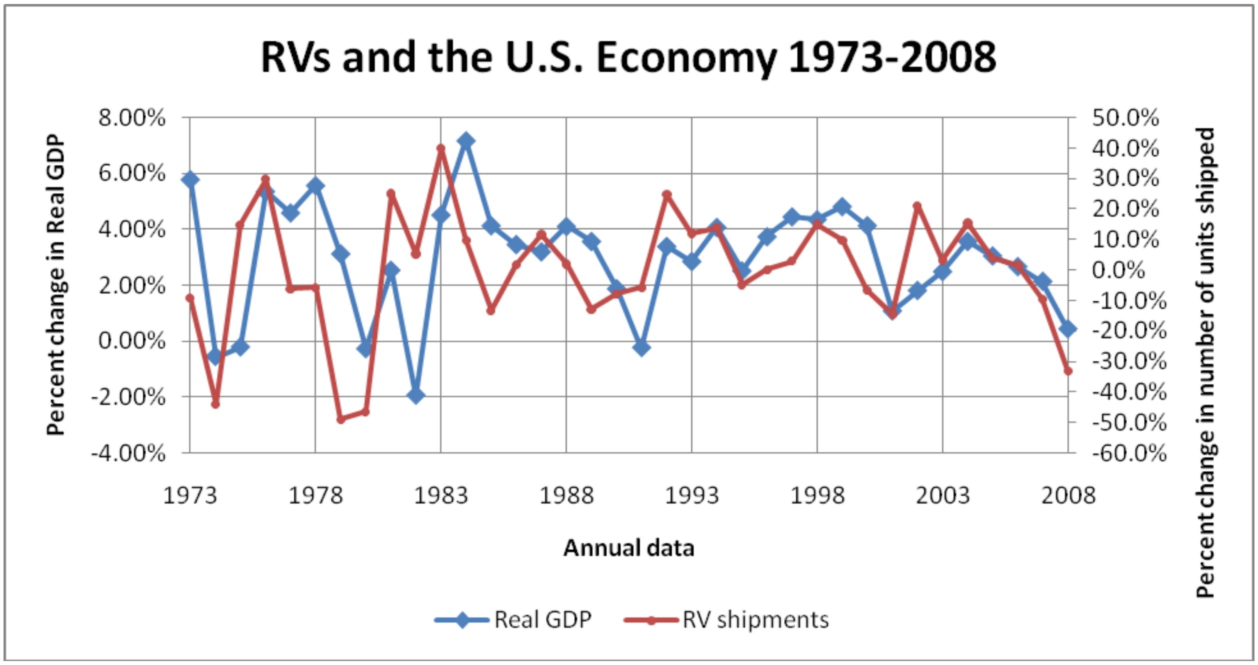
Subsequently, with more stable petroleum prices, the industry enjoyed a steady, but not uninterrupted, climb for the next 26 years to a peak of 390,000 units at an average annual rate of 5.1 percent. In the past two years (2007 and 2008) the industry has been subjected to record petroleum prices and suffered a decline of 153,000 or an average annual decline of 22 percent.

Where is the industry headed now? Will this recent decline continue and for how long? Or is a rebound at hand? The latter seems to be the most likely case.

[1] Data provided by Recreation Vehicle Industry Association (RVIA). Percentages calculated by the author from unrounded numbers.

There is a wide-spread belief that the RV industry leads the nation in recession and recovery. The evidence is, to this observer, not conclusive. Figure 2 presents the percent changes in U.S. Gross Domestic Product adjusted for inflation (Real GDP) from 1973 to 2008[2] along with the rates of change in RV shipments for the same period.

Figure 2

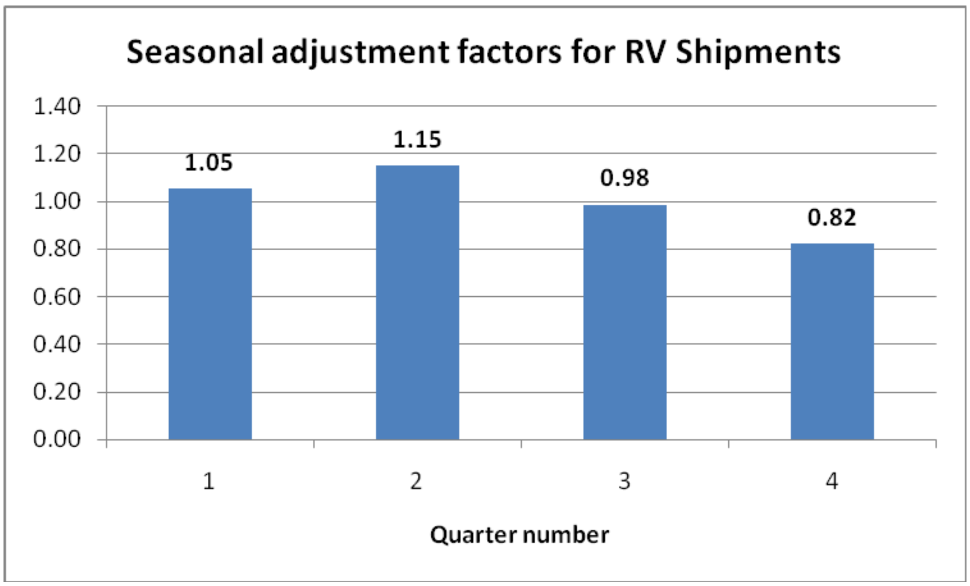


Close examination of Figure 2 reveals that increases in RV shipments peaked in advance of Real GDP growth three times; the troughs for RV shipments lead in three instances as well. However, peaks and troughs occurred simultaneously five times respectively. This hardly constitutes a case for the industry signaling changes in the direction of the national economy.

[2] Source: U.S. Bureau of Economic Analysis.

RV shipment data are reported monthly and aggregated to quarterly figures without adjustment for seasonal factors. Yet there is considerable seasonality in shipments. Traditionally, the first and second quarters of each year have more shipments than the last two quarters. Figure 3 offers seasonal adjustment factors for the industry from 1972 to 2008.[3]

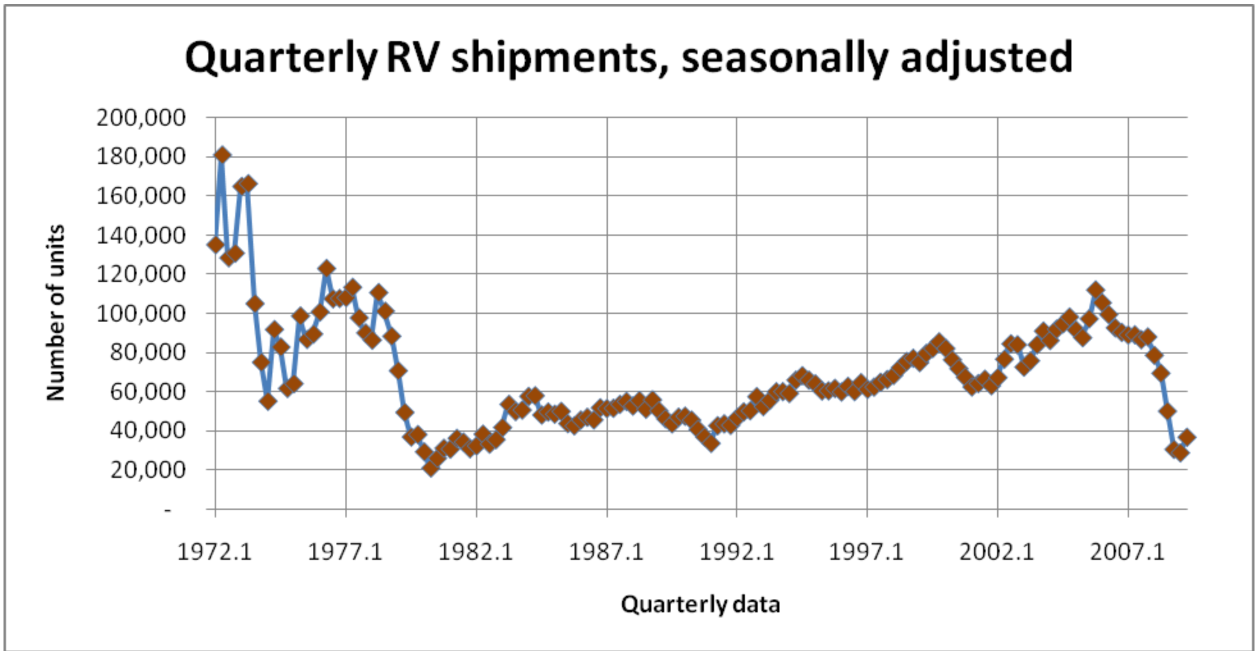
Figure 3



Applying these seasonal adjustment factors to the quarterly RVIA data yields the data for Figure 4.

[3] Calculated by the author from RVIA data. If the average shipments for the year are set to 1.00 then the average shipments of each quarter are numbers higher or lower than the annual average.

Figure 4



RV shipments declined in eleven of the thirteen quarters from 2005.4 to 2009.1. Then in 2009.2, there is an up-tick of 7,000 units (27 percent). Is the economy turning?

Currently the RV industry is in its eighth cycle since 1972 as shown in Table 1. The longest and deepest contraction was 16 quarters with an 83% decline in the late 1970s. This cycle began in 2005.4 and is believed to have ended in 2009.1, 13 quarters with a 74 percent decline in shipments.

Table 1

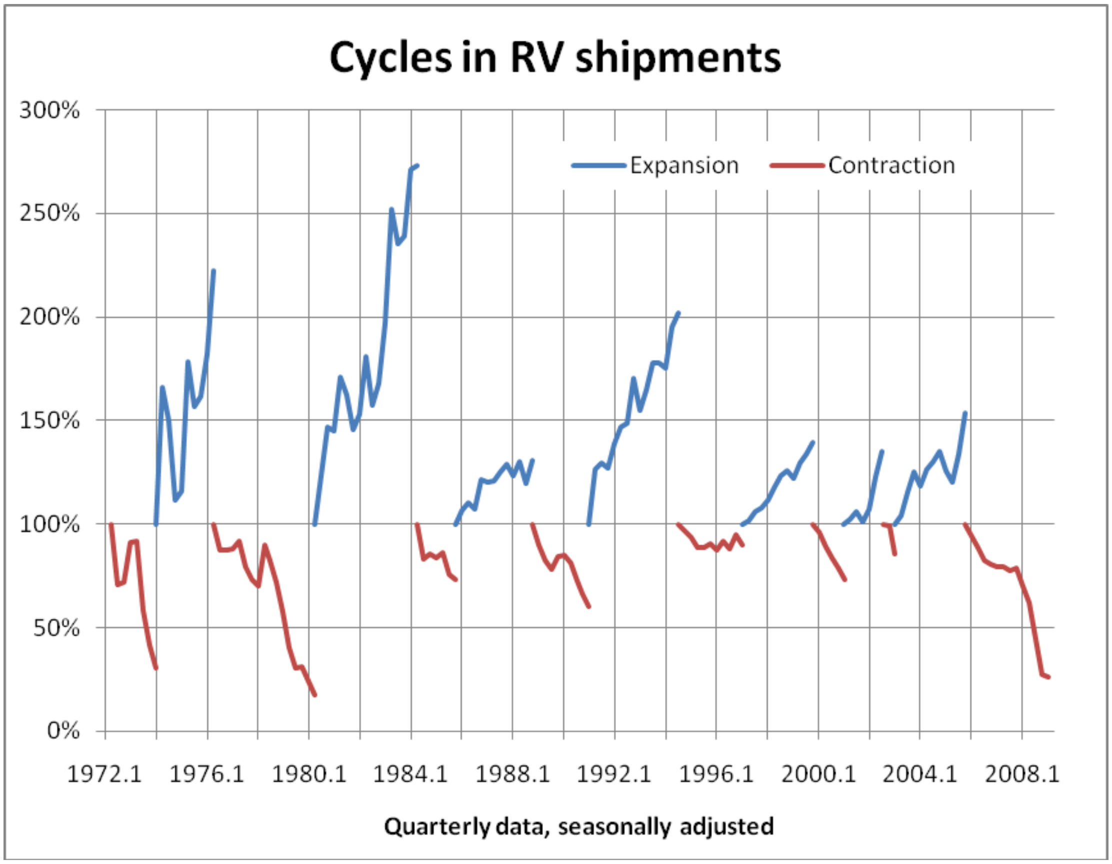
Cycles in RV Shipments

Contractions				Expansions			
Peak	Trough	Qtrs	Decline	Trough	Peak	Qtrs	Increase
1972.2	1974.1	7	-69%	1974.1	1976.2	9	122%
1976.2	1980.2	16	-83%	1980.2	1984.2	16	173%
1984.2	1985.4	6	-26%	1985.4	1988.4	12	35%
1988.4	1991.1	9	-40%	1991.1	1994.3	14	102%
1994.3	1997.1	10	-10%	1997.1	1999.4	11	39%
1999.4	2001.1	5	-27%	2001.1	2002.3	6	35%
2002.3	2003.1	2	-14%	2003.1	2005.4	11	54%

2005.4	2009.1	13	-74%	2009.1	?	?	?

These data are graphically presented in Figure 5. The base (100%) is the peak for a contraction or the trough for an expansion. The longest expansion lasted 16 quarters from 1980.2 until 1984.2 with a 173 percent increase in shipments. This followed the longest and deepest contraction, 1976.2 to 1980.2, also 16 quarters with an 83 percent in shipments.

Figure 5



By contrast, the recent decline is shown lasting 13 quarters with a 74 percent decrease in shipments. These percent decreases and increases are spread over varying numbers of quarters. They can be standardized by converting to average annual rates of change which are then comparable to similar rates in Real GDP. See Table 2.

Table 2

Average annual rates of change for Real GDP and RV Shipments in Expansions

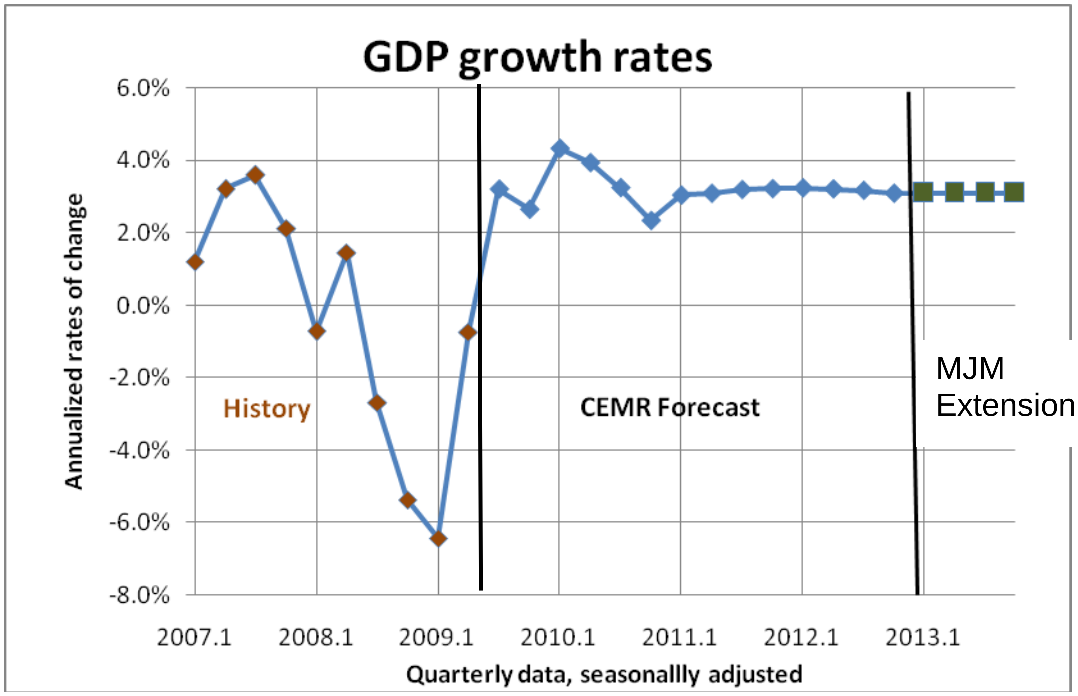
			Pct ch @ annual rate		
Qtrs	Trough	Peak	Real GDP	RV Shipments	
9	1974.1	1976.2	2.0%	42.6%	
16	1980.2	1984.2	3.2%	28.6%	
12	1985.4	1988.4	3.6%	9.4%	
14	1991.1	1994.3	3.3%	22.2%	
11	1997.1	1999.4	4.9%	12.9%	
6	2001.1	2002.3	1.8%	22.3%	
11	2003.1	2005.4	3.3%	17.0%	
11.3	**Averages**		**3.1%**	22.1%	annual rate
				5.1%	quarterly rate

In Table 2 it becomes clear that the annualized percent changes in RV shipments are much more vigorous and variable than the rates of increase in Real GDP during the same periods. The average of the Real GDP gains is 3.1 percent while that for RVs is 22.1 percent.

Is the recent downturn in the economy over? Along with many economists, the Center for Econometric Model Research at Indiana University (CEMR) is forecasting a recovery beginning in the third quarter of 2009. See Figure 6.

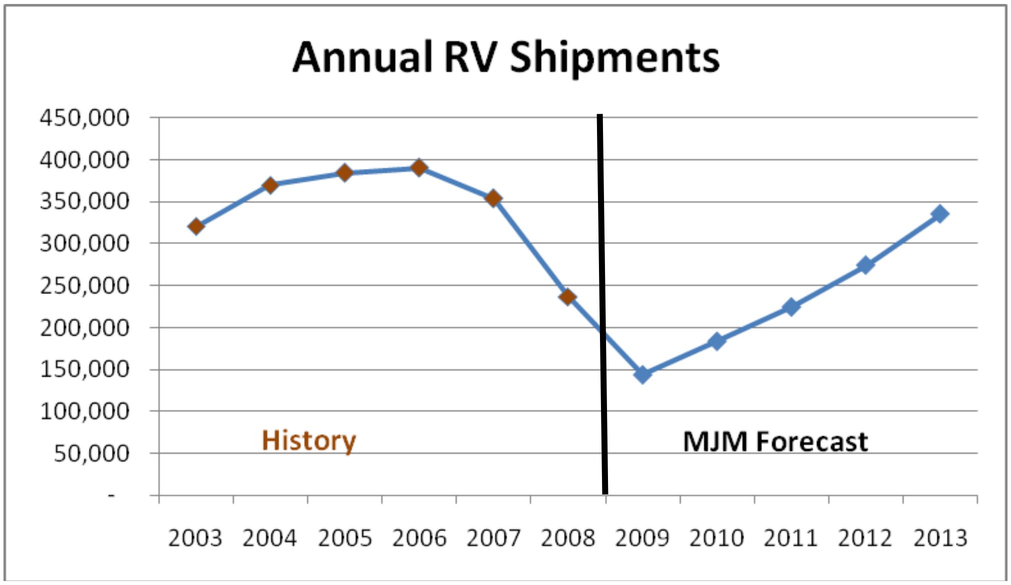
During the period forecast by CEMR, Real GDP grows at an average rate of 3.2 percent. This is close to the long-term growth rate of the U.S. economy. Therefore, we do not hesitate to extend this forecast at a rate of 3.1 percent for a year beyond the CEMR horizon.

Figure 6



With the average forecast rate of growth in Real GDP (3.2 percent) virtually the same as the rate (3.1 percent) during the past seven RV shipment expansions, our best expectation is that RV shipment growth will average 22.1 percent as it did during those same previous expansions years. This rate is converted to a quarterly rate of 5.1 percent and is applied to RV shipments through 2013. See Table 7.

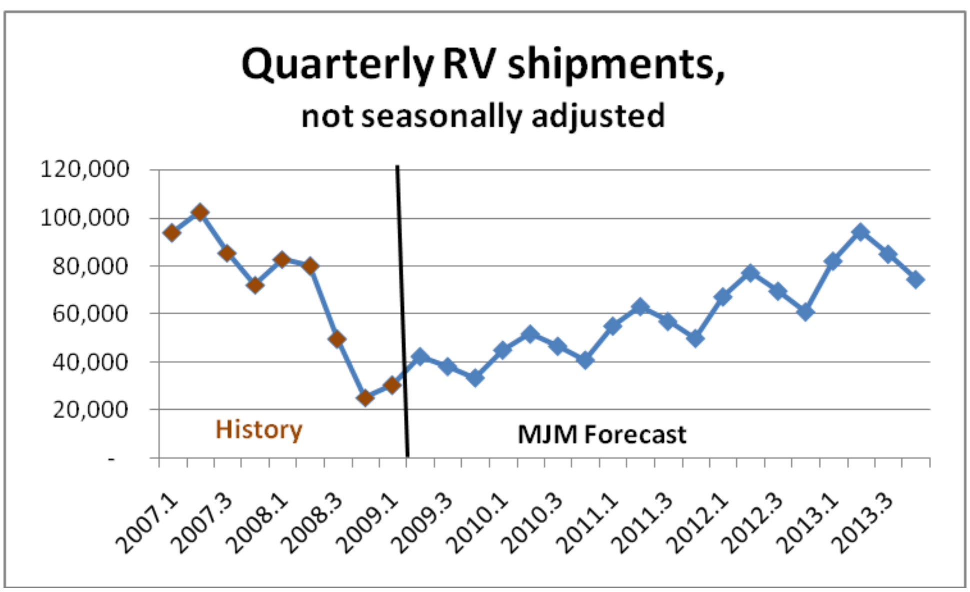
Table 7



This forecast almost restores RV shipments to 2007 levels and exceeds the 2003 shipment levels.

On a quarterly basis, removing seasonal adjustments provides the forecast shown in Figure 8.

Figure 8



This forecast compares favorably with one generated by the RV industry's most noted observer, Richard Curtin of the University of Michigan. In the Fall 2009 issue of RV RoadSigns, Dr. Curtin forecasts shipments for 2009 at 146,200 units compared to our forecast of 144,400. In 2010, Dr. Curtin anticipates 185,800 units compared to our more conservative 184,300. See Table 3.

Table 3

RV Shipment Forecast By Category[4]

Year	Travel Trailer	Fifth Wheel	Folding Camping	Truck Camper	Motor home Type A	Motor home Type B	Motor home Type C	Total RV
2006	203.6	88.8	34.0	8.2	32.7	3.0	20.2	390.5
2007	180.2	81.4	28.8	7.5	32.9	3.1	19.5	353.4
2008	128.1	57.0	18.9	4.7	14.9	1.9	11.5	237.0
2009	89.9	30.8	12.2	1.9	4.9	1.0	5.5	146.2
2010	116.7	39.0	13.5	2.2	6.2	1.2	7.0	185.8

[4] Unnumbered table from "RV Outlook Improves" by Richard Curtin, Director of the Surveys of Consumers at the University of Michigan, RV RoadSigns (RVIA, Fall 2009, Vol. 29 No. 3). Dr. Curtin has conducted research on the RV industry since 1979...