

How Stable is Consumer Spending on Consumer Technologies?

by

Shawn G. DuBravac, CFA

How stable is consumer spending on consumer technologies? Controlling for seasonality, do we see significant variability from year to year in consumer spending?

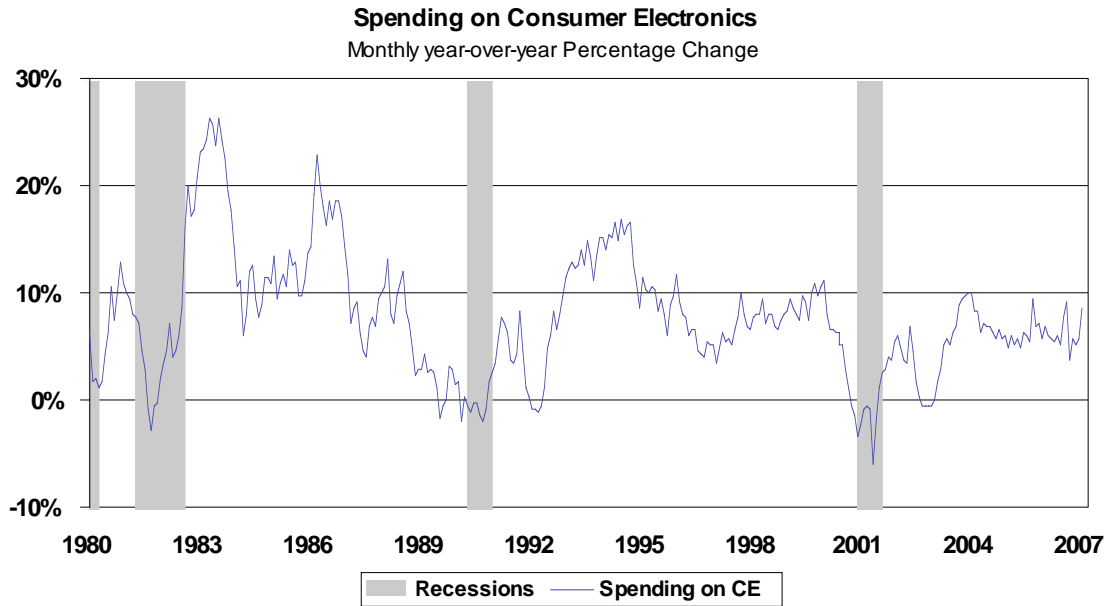
Since January 1960, monthly year-over-year nominal consumer spending on consumer technologies has averaged 8.8 percent – with a standard deviation of 6.2 percent. Standard deviation is an often used measure of variability. A low standard deviation tells us we would expect to see observations clustered around the average. Given a typical distribution, we expect 68 percent of all observations to be within one standard deviation of the average and 95 percent of all observations to be within two standard deviations of the average.

In the case above, a standard deviation of 6.2 percent tells us 68 percent of our 568 monthly observations will be between 2.6 percent and 15 percent. Interpreted another way, there is a 68 percent chance that any give month's year-over-year growth in consumer spending on consumer electronics will be between 2.6 percent and 15 percent.

Over the last 568 monthly periods, spending on consumer technologies has experienced a year-over-year decline in just 46 months – 8.1 percent of the time.

Compare this with consumer spending on new automobiles which exhibits both a lower average monthly year-over-year growth rate of 5.6 percent and a significantly higher standard deviation of 15.4 percent. Given the lower average growth rate and the higher volatility, it is clear consumer spending on new autos has experienced significantly more months with negative year-over-year growth than spending on consumer technologies. Over the last 568 monthly periods, spending on new autos has experienced a year-over-year decline in 206 months – over 36 percent of the time.

The last time monthly spending on consumer technologies declined on a year-over-year basis was over four years ago – when spending fell slightly during each of the months from January to June in 2003. As the chart illustrates, months experiencing year-over-year spending declines on consumer electronics tend to occur when the aggregate economy is in recession.



Above and beyond one-off examples like new autos, consumer spending on consumer technologies has done better than spending on all goods in aggregate. Year-over-year consumer spending on durable goods has fallen in 75 of the last 568 months – 13.2 percent of the time. It has also had a lower average (4 percent) and a slightly higher standard deviation (6.7 percent).

The story is even more remarkable when we look at year-over-year spending on an annual basis. Consumer spending on consumer technologies in nominal terms has fallen only twice in the last 40 years. It fell 1.3 percent in 1960 and one percent in 2001. These results show the robustness of the consumer electronics industry. Over the last 40 years – in good economic years and bad ones – consumers have again and again allocated a growing portion of their total spending to consumer electronics.