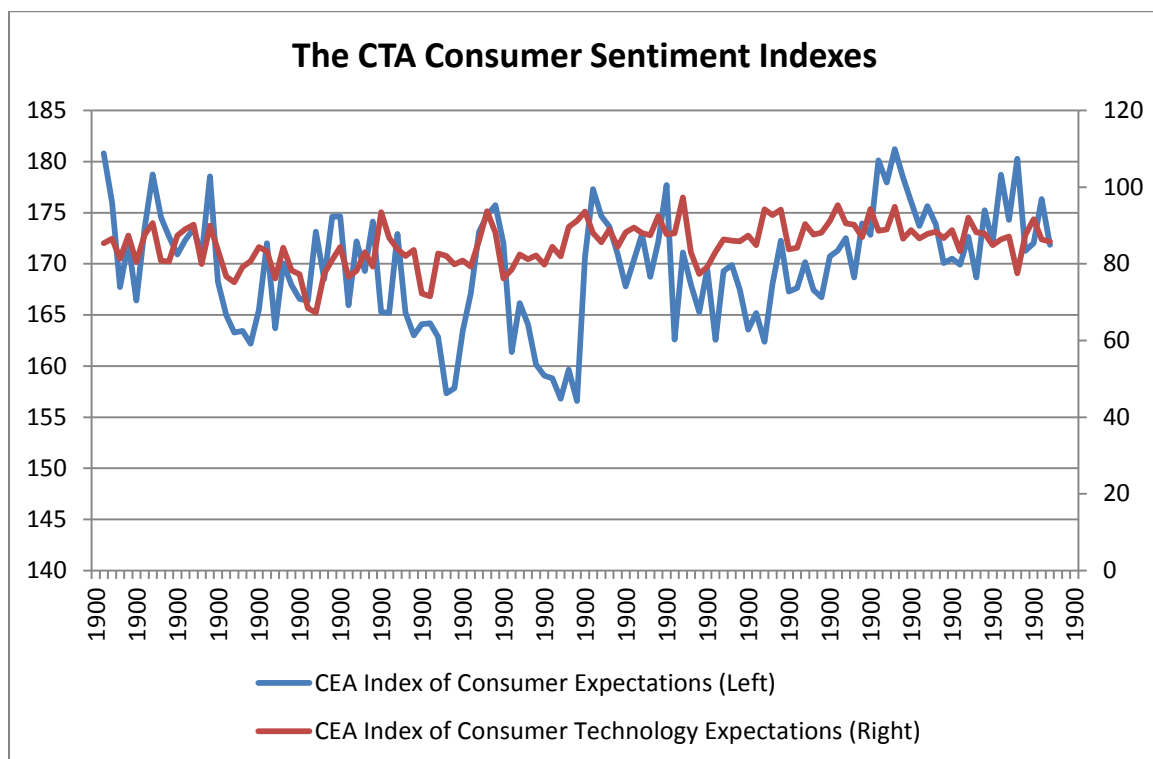


The CTA Consumer Sentiment Indexes

The CTA Consumer Sentiment Indexes represent more than six years of research into cutting-edge methods for measuring consumer expectations about the future. The indexes measure how consumers perceive the overall health of the economy and the outlook for technology spending. Both indexes focus on consumer perceptions of the future. These forward looking expectations provide market observers valuable information into how consumers will likely behave over the pursuing months.

The CTA Index of Consumer Expectations slipped in September whereas the CTA Index of Consumer Technology Expectations remained relatively unchanged.

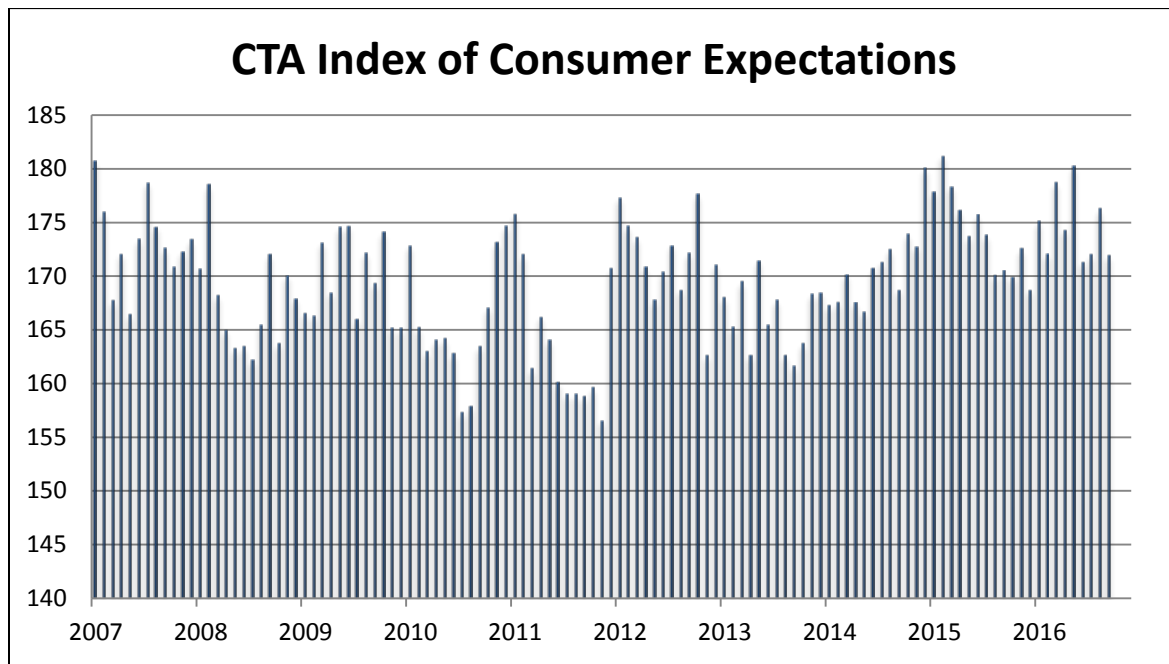


The CTA Index of Consumer Expectations

The CTA Index of Consumer Expectations (ICE) measures consumer expectations about the broader economy. The index carries a maximum value of 300 and a minimum value of 100.

Table 1: CTA Index of Consumer Expectations

2013											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
168.0	165.3	169.5	162.6	169.3	169.9	167.5	163.5	165.2	162.4	168.0	172.3
2014											
167.3	167.6	170.2	167.5	166.7	170.7	171.3	172.5	168.7	174.0	172.8	180.1
2015											
177.9	181.2	178.4	176.1	173.7	175.7	173.9	170.1	170.5	169.9	172.6	168.7
2016											
175.2	172.1	178.7	174.3	180.3	171.3	172.0	176.3	171.9			



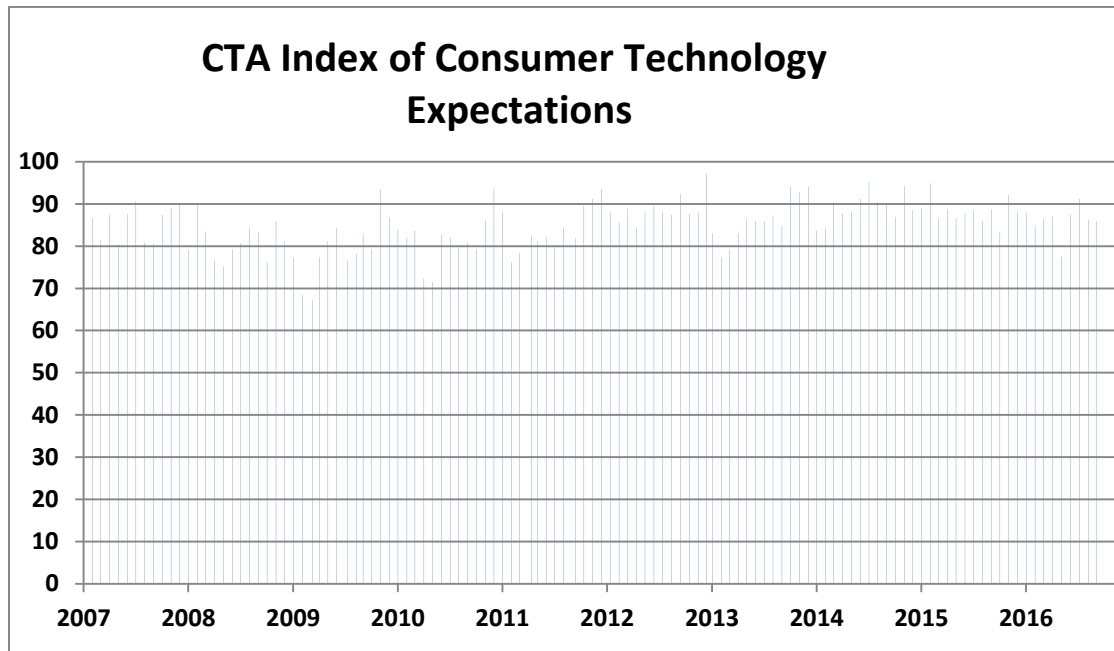
- The CTA Index of Consumer Expectations (ICE) decreased by 4.3 percentage points for the month and is now 0.8 percent higher on a year-over-year basis.

The CTA Index of Consumer Technology Expectations

The CTA Index of Consumer Technology Expectations (ICE) measures consumer expectations about technology spending. The index carries a maximum value of 200 and a minimum value of zero.

Table 2: CTA Index of Consumer Technology Expectations (ICTE)

2013											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
83.0	77.4	79.2	83.1	86.4	86.0	85.9	87.3	84.9	94.2	92.7	94.1
2014											
83.7	84.2	90.4	87.7	88.2	91.2	95.3	90.5	90.2	87.0	94.3	88.6
2015											
88.9	94.9	86.5	88.7	86.6	87.8	88.4	86.7	88.8	83.3	92.1	88.2
2016											
87.9	84.9	86.4	87.1	77.5	87.5	91.2	86.3	85.8			



- The CTA Index of Consumer Technology Expectations (ICTE) decreased 0.5 points, and is down 3.4 percent from September 2015.

About the CTA Consumer Sentiment Indexes

The CTA Consumer Sentiment Indexes are published by the Consumer Technology Association. The Indexes are published monthly on the fourth Tuesday of each month. The survey data are collected each month by random-digit-dial for 1,000 respondents and weighted to be representative of the U.S. population.

For an in-depth analysis of the methodology used in the CTA Consumer Sentiment Index see the whitepaper “The CTA Consumer Sentiment Indexes.”

About CTA

About Consumer Technology Association:

Consumer Technology Association (CTA)[™], formerly Consumer Electronics Association (CEA)[®], is the trade association representing the \$287 billion U.S. consumer technology industry. More than 2,200 companies – 80 percent are small businesses and startups; others are among the world’s best known brands – enjoy the benefits of CTA membership including policy advocacy, market research, technical education, industry promotion, standards development and the fostering of business and strategic relationships. CTA also owns and produces CES[®] – the world’s gathering place for all who thrive on the business of consumer technologies. Profits from CES are reinvested into CTA’s industry services.

Appendix I: Composition of the CTA Index of Consumer Expectations

The CTA Index of Consumer Expectations is derived from three components – Expectations for the U.S. Economy, Expectations for the Job Market, and Expectations for Personal Financial Health. The CTA Index of Consumer Technology Expectations is derived from two components – Expectations for Purchasing Tech and Expectations for Purchasing More Tech.

Table 3: Expectations for the U.S. Economy

2012											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
41.9	40.1	39.8	36.4	37.0	37.0	36.5	37.4	42.1	43.1	37.8	38.3
2013											
36.0	35.3	35.2	33.8	37.1	36.5	35.9	33.0	35.4	32.0	35.5	37.4
2014											
33.9	32.7	34.5	32.5	34.7	34.0	34.3	34.9	34.8	32.1	37.7	39.7
2015											
40.3	40.4	40.5	36.0	36.1	36.7	35.5	34.4	34.1	37.6	35.5	35.2
2016											
35.9	34.9	37.5	37.3	38.0	35.8	37.9	37.7	34.9			

Table 4: Expectations for the Job Market

2012											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
82.9	83.3	82.6	82.7	82.8	82.4	84.5	83.2	81.9	84.8	79.5	84.4
2013											
82.7	80.8	83.5	80.7	83.2	82.8	82.6	82.5	81.5	82.4	83.1	82.3
2014											
82.7	86.4	83.7	83.0	80.6	85.0	83.8	85.8	82.6	86.3	83.4	85.5
2015											
85.8	84.6	84.4	86.4	84.6	86.2	84.5	85.4	84.1	81.6	84.4	82.2
2016											
86.8	85.7	86.2	82.3	88.1	80.5	81.6	84.3	85.4			

Table 5: Expectations for Personal Financial Health

2012											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
52.5	51.3	51.3	51.9	48.0	51.1	51.9	48.1	48.2	49.7	45.3	48.4
2013											
49.3	49.2	50.8	48.1	49.0	50.6	49.0	48.1	48.3	48.0	49.4	52.6
2014											
50.7	48.5	51.9	51.9	51.4	51.7	53.2	51.8	51.3	55.6	51.8	54.8
2015											
51.8	56.3	53.6	53.7	53.1	52.8	53.8	50.3	52.3	50.6	52.7	51.2
2016											
52.5	51.5	55.1	54.6	54.2	55.0	52.5	54.4	51.6			

Table 6: Expectations for Buying Tech

2012											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
53.2	50.8	52.9	50.2	51.9	52.5	51.8	51.6	54.4	52.0	52.2	58.5
2013											
50.0	46.2	45.0	48.6	50.8	49.8	50.0	51.5	49.4	55.4	55.7	54.4
2014											
49.1	49.9	52.9	49.6	52.5	52.9	55.6	53.6	53.7	52.5	55.3	52.2
2015											
53.0	55.2	50.4	51.8	50.6	51.1	52.4	50.7	53.3	49.2	54.3	53.3
2016											
52.2	50.0	52.5	51.6	43.7	52.5	54.7	50.4	51.0			

Table 7: Expectations for Spending More on Tech

2012											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
34.8	34.7	36.0	34.2	36.2	37.0	36.3	35.8	38.0	35.7	35.8	38.8
2013											
33.0	31.2	34.2	34.5	35.6	36.2	35.9	35.8	35.4	38.9	37.0	39.7
2014											
34.7	34.4	37.5	38.1	35.6	38.3	39.7	36.9	36.5	34.5	39.0	36.4
2015											
35.9	39.6	36.1	37.0	36.0	36.8	36.0	35.9	35.6	34.1	37.8	34.9
2016											
35.7	34.9	33.8	35.5	33.9	35.0	36.9	35.9	34.8			