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E-commerce stocks: Are we in bubble trouble?

Key takeaways

- **E-commerce stock valuations** have not yet reached prior peak levels, and favorable underlying economic conditions and generational demographics may continue to support present valuations.
- **However, the momentum-driven environment**—historically a precursor to market bubbles—may have elevated select shares of these firms beyond more reasonable economic justifications.
- **For your clients who are concerned** about the rapid rise in e-commerce valuations, consider discussing the potential benefits of Fundamental Index® strategies, which use objective financial measures rather than market capitalizations to select and weight securities.

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E-commerce stocks outpaced the broad U.S. stock market by more than 250% from 2000 through early 2018, sparking comparisons with the late 1990s "tech bubble" and the U.S. "housing market bubble," which peaked in 2006.[1] Charles Schwab Investment Management evaluated this result, finding that the rapid rise in e-commerce valuations partially reflects an underlying consumer preference shift from "brick" to "click," with millennials driving this trend. In spite of this supportive undercurrent, valuations on e-commerce stocks may have stretched beyond reasonable economic justifications. As a result, we believe that Fundamental Index® strategies might be an appropriate investment opportunity to discuss with your clients who are concerned that e-commerce valuations are in bubble territory.

Our research-based approach

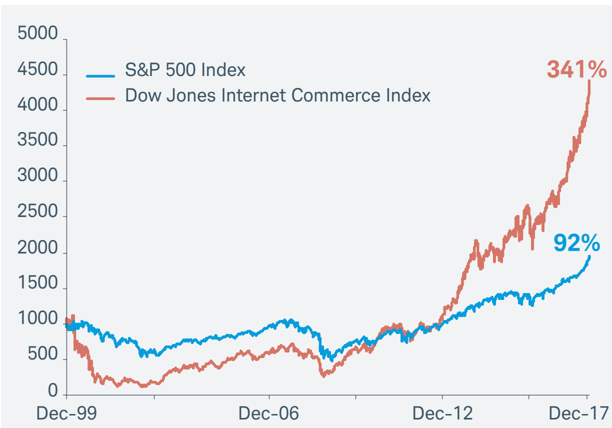
To evaluate whether e-commerce stocks are currently in a bubble, we compared the valuation characteristics of e-commerce stocks today with valuations during the tech bubble and U.S. housing market bubble, given the relative parallels in extreme market conditions. We also examined investor behaviors that might be uniquely contributing to the present-day undercurrent of sustained price momentum in e-commerce stocks.

E-commerce valuations in perspective

Exhibit 1 illustrates the remarkable performance of e-commerce stocks over approximately the past 17 years compared with the broader market. For perspective, the S&P 500® Index experienced an unprecedented 12 consecutive months of positive returns in 2017, followed by fresh record highs in early 2018. Yet even more impressive still was the performance of the Dow Jones Internet Commerce Index—representing a composite of the 15 largest and most actively traded e-commerce stocks—which rose 341% from 2000 to January 2018, compared with 92% for the S&P 500 Index.[2]

Exhibit 1: Putting the rise of e-commerce stocks in perspective*

After essentially tracking the broad U.S. stock market's steady growth through 2008, e-commerce stocks surged.



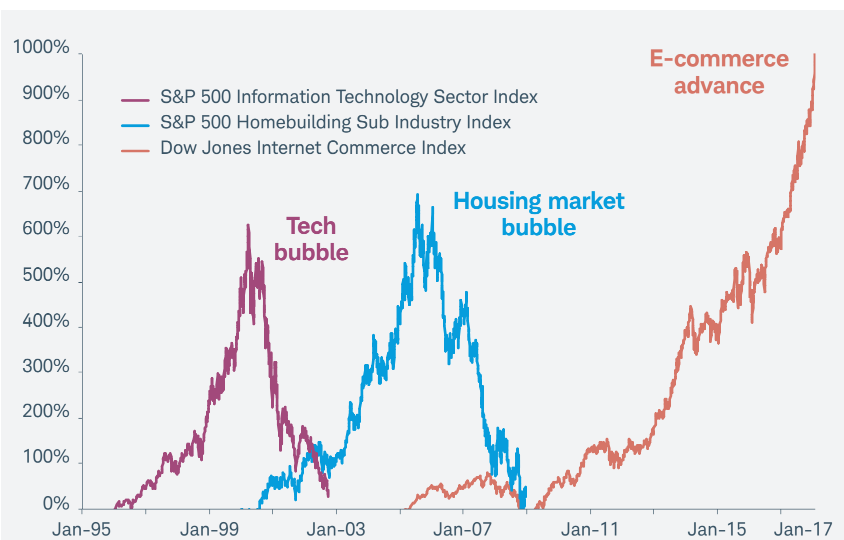
Sources: Bloomberg, Charles Schwab Investment Management. Indexes normalized to a starting value of 1000.
Past performance is no guarantee of future results.

Sizing up one bubble to another

If we compare the current e-commerce run-up in stock prices to past market bubbles, as in Exhibit 2, the picture may seem somewhat alarming on the surface, illustrating that e-commerce stocks have comfortably eclipsed the peaks of prior market bubbles. Unlike the tech bubble run to the peak that lasted approximately four years and U.S. housing market bubble run to the peak that lasted approximately seven years, the current run-up in e-commerce stocks has eclipsed both of these time spans. However, unlike the periods leading up to the tech and U.S. housing market bubbles, the rise in e-commerce stocks has been supported by shifting generational behaviors that we believe has led to a fundamental change in the outlook for e-commerce companies.

Exhibit 2: The e-commerce advance vs. the tech and housing market bubbles*

E-commerce stocks have comfortably eclipsed the peaks of prior market bubbles.



Bloomberg, Charles Schwab Investment Management. Index price returns normalized to a starting value of 0%.
Past performance is no guarantee of future results.

Millennials represent a majority influence on the consumer marketplace today, and are shifting how companies across many industries do business.

The rising e-commerce tide

Millennials, the largest generation in U.S. history, represent a majority influence on the consumer marketplace today, and, in terms of marketing and distribution strategies, are shifting how companies across many industries do business. Older generations are adopting the trends that millennials are setting, and collectively, these consumers present substantial opportunities for internet marketing. New online platforms for goods and services are being developed to attract millennials while attempting to retain buying by "traditional" customers such as Generation-X and baby boomers.

Supporting the idea of a shift in consumer preferences, e-commerce stock prices have significantly outpaced the performance of traditional department stores starting in 2008, as shown in Exhibit 3. Increasingly, consumers are shopping online instead of in person. This trend illustrates that at least part of the e-commerce surge represents a fundamental shift and an economic disruption, rather than an unsupported market bubble.

Valuation comparisons to the tech bubble

Valuations of e-commerce stocks today relative to Technology stocks during the late 1990s seem natural to compare, given the similarity in business type and momentum experiences during the tech craze.

- As of January 31, 2018, the total e-commerce weight in the S&P 500 Index was approximately 8.3%, with the majority of stocks—5.3%—concentrated in Information Technology.
- This is much smaller than the Technology weight in the broad market during the late 1990s to early 2000, which represented more than 30% of the S&P 500 Index at its pre-tech bubble peak.
- If e-commerce stocks experienced a correction, the effect on the broader market would therefore likely be far less than when the tech bubble burst.

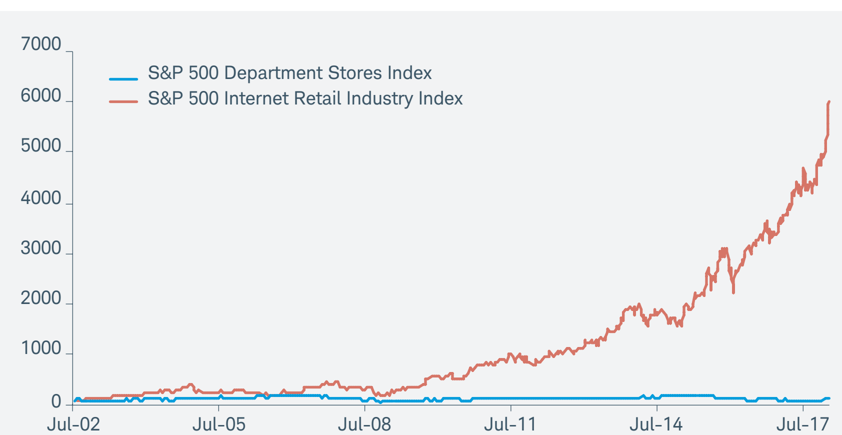


Exhibit 3: From brick to click*

Internet-based retail stocks began to outperform department-store stocks in 2008, a trend that has continued to gain momentum.

Sources: Bloomberg, Charles Schwab Investment Management. Indexes normalized to a starting value of 100.[3]

Past performance is no guarantee of future results.

Next, we compared valuations at the broad sector level. Exhibit 4 provides a table of trailing 12-month P/E ratios in and around the various stages of the tech bubble.

Exhibit 4: P/E ratios around the time of the tech bubble

Tech bubble	Date	P/E S&P 500 Index	P/E Technology
Start	01/03/1996	18	20
Peak	03/27/2000	30	80
End	10/09/2002	17	35

- P/E valuations rose from 20 to 80 from the start to the peak of the tech bubble, a staggering 300% increase for Technology stocks, before plummeting back to 35, less than half of their peak value.
- Information Technology is a major sector for the S&P 500 Index, inevitably driving market valuations up from 18 to 30, and then down significantly when the bubble burst.
- The S&P 500 Index started and ended with a nearly identical P/E (17 vs 18) ratio.

A similar comparison of P/E ratios for the S&P 500 Index and e-commerce stocks during the peak of the U.S. housing market bubble versus valuations today revealed the findings in Exhibit 5.

Exhibit 5: P/E ratios around the time of the U.S. housing market bubble vs. 2018

E-commerce	Date	P/E S&P 500 Index	P/E e-commerce
2005	2/24/2005	18	31
2018	1/31/2018	23	69
End	?	–	–

- E-commerce P/E ratios have risen from 31 to 69, up more than 100% compared with where they began, yet representing only half of the increase at the peak of the tech bubble.
- Additionally, e-commerce P/E ratios are still lower than where Information Technology stocks were during the peak of the tech bubble (69 vs. 80).
- The P/E ratio for the S&P 500 Index has risen from 18 to 23, a much more moderate rise than during the tech bubble.
- Historically speaking, Information Technology stocks have had higher valuations than the general market, but at a P/E ratio of 69, e-commerce shares are trading at relatively rich levels.

Baby boomers dominate ownership of e-commerce stocks—and stocks in general—from a generational standpoint.

Generational influences

Baby boomers dominate ownership of e-commerce stocks—and stocks in general—from a generational standpoint, which means that their collective actions are arguably the most critical factor.[4] Online shopping continues to grow in popularity, particularly among millennials. Yet despite their love of spending time shopping online, millennials primarily support companies through the acquisition of goods and services. Baby boomers as a generation have this ability plus ample financial capital to purchase shares of the companies themselves. In addition to having more assets at risk, baby boomers in the retirement phase and focused on preserving savings have historically been much more likely to flee at the first sign of trouble. This could exacerbate any future decline. As much as boomers jumped into Technology stocks leading up to the tech bubble, and into real-estate-leveraged products ahead of the U.S. housing market bubble, they were first to leave these stocks during the Great Recession. Therefore, although baby boomers may not be trendsetters where online purchases are concerned, their investment decisions could become the deciding factor if e-commerce stocks began to shift out of favor.

Investment considerations for your clients

Are e-commerce stocks in bubble territory? Our research and findings suggest not quite yet. Moreover, fundamental factors appear to be supporting valuations in this area of the stock market. Nevertheless, we believe the momentum-driven environment has elevated the P/E ratios of select e-commerce stocks to levels that merit some degree of caution where your clients' portfolios are concerned, especially if e-commerce stocks begin to fall out of favor. Cap weighted index strategies rely on price and tend to overweight momentum areas, increasing the possibility of providing overexposure, especially when factoring in relative performances over recent years.

For your clients who are concerned about a possible valuation bubble among e-commerce stocks, consider discussing the potential benefits of Fundamental Index strategies. Unlike many traditional index strategies that typically weight securities based on market capitalization, Fundamental Index strategies use objective financial measures of company size to weight and select securities. In addition, these strategies tend to outperform when momentum-based strategies fall out of favor, making them excellent complements to cap weighted index products.

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Charles Schwab Investment Management

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* All chart data through 01/31/2018.

[1] The relative outperformance of e-commerce stocks is based on price return comparisons between the Dow Jones Internet Commerce Index and the S&P 500 Index from 12/31/1999 to 01/31/2018.

[2] Charles Schwab Investment Management, Inc.; Bloomberg. Index price returns generated for the period of 12/31/1999 to 01/31/2018.

[3] Index price returns for the period of 07/19/2002–the inception date of the S&P 500 Internet Retail Index–through 01/31/18.

[4] Charles Schwab Investment Management, Inc.; ICI Research Perspective: "Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2015."

Dow Jones Internet Commerce Index–A modified capitalization-weighted index intended to track the performance of companies involved in internet commerce-related activities.

S&P 500 Homebuilding Sub Industry Index–A capitalization-weighted GICS Level 4 sub-industry group index.

S&P 500 Information Technology Sector Index–A capitalization-weighted GICS Level 1 index.

S&P 500 Internet Retail Industry Index–A capitalization-weighted GICS Level 4 sub-industry group index.

S&P 500 Department Stores Index–A capitalization-weighted GICS Level 4 sub-industry group index.

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