



# How "passive" indexes can lead investors astray HE TROUBLE WITH BUBBL

The end of a market bubble is never pleasant, but it can be especially painful for investors in passive strategies that track major stock indexes. A key reason: those indexes tend to increase the weighting of rapidly rising sectors as bubbles inflate, setting up investors for a bigger fall.

### Market indexes: nothing succeeds like excess

A brief look at the fallout from four high-profile market bubbles is revealing. As shown below, the weights of popular sectors at the peaks of these bubbles can be enormous. Example: At the end of 1989, Japan represented nearly 63% of the MSCI EAFE Index — which is constructed to reflect all developed equity markets in Europe, Australasia and the Far East. Yet after Japan's "Lost Decade", Japan stocks accounted only about 20% of that same index. Meanwhile the broader EAFE Index itself rose about 34% (cumulative) during that same period, as the weightings of other countries with rising equity markets rose to fill the gap.

### Short, sharp changes can be worse

When sector bubbles collapse over shorter time periods, the overweights can impact major market indexes as well. Example: as the Internet bubble of the late 1990s collapsed, the weight of the S&P 500 Info Tech sector, one of the ten sectors represented in the S&P 500, shrank by more than half, from 33.3% to 15.4%, as the sector generated a cumulative loss of 73.8%. That collapse took the S&P 500 along with it;

the index fell 38.4% during the same period. The same effect could be seen during the global financial crisis, with financials plummeting nearly 80%, pulling the index down 48%.

### Lessons learned: bubbles and benchmarks

These are only a small sample of the kinds of distortions reflected in passive capitalization-weighted indexes, whose construction forces them to overweight sectors as they become more popular with investors. When added to the well-documented tendency of investors to herd toward supposedly "hot" opportunities, the damage to investment returns can be substantial.

The core issue, however, is not that every success contains the seeds of its own destruction. Rather, it's that using conventional passive, index-based investing as the center of a balanced investment strategy can introduce unexpected — and unwanted — volatility into a supposedly conservative portfolio, at just the moment when investors may be seeking refuge. And that's the real trouble with bubbles.

### As sector bubbles deflate, their weights can inflict damage on broader indexes

Event	Time frame	Sector/region	Weighting in its market index (%)		Cumulative loss (%)	
			Peak	End	Sector	Market
Japan "Lost Decade"	12/31/89-12/31/98	MSCI Japan	62.6	20.2	-58.0	+34.01
Internet bubble & aftermath	2/29/00-2/28/03	S&P 500 Info Tech	33.3	15.4	-73.8	-38.44
Global Financial Crisis	12/31/06-2/28/09	S&P 500 Financials	22.4	9.9	-79.6	-48.17
Energy Bust	6/30/08-9/30/15	S&P 500 Energy	15.9	6.7	-30.8	+50.01

Sources: Bloomberg, MSCI, Standard and Poors, as of November 17, 2015. Past performance is no guarantee of future results. All returns are cumulative rather than annualized, and calculated on a monthly basis. Market indexes for each sector are Japan: MSCI EAFE; S&P 500 Info Tech, Financials and Energy: S&P 500. All index and sector returns reflect price appreciation/depreciation; returns due to dividends are excluded. Please note that an investor cannot invest directly in an index. Unmanaged index returns do not reflect any fees, expenses or sales charges. This information is provided for illustrative purposes only and does not reflect the performance of an actual investment.

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