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- The **short-term trader** makes changes to a portfolio daily or weekly, based on indicators.

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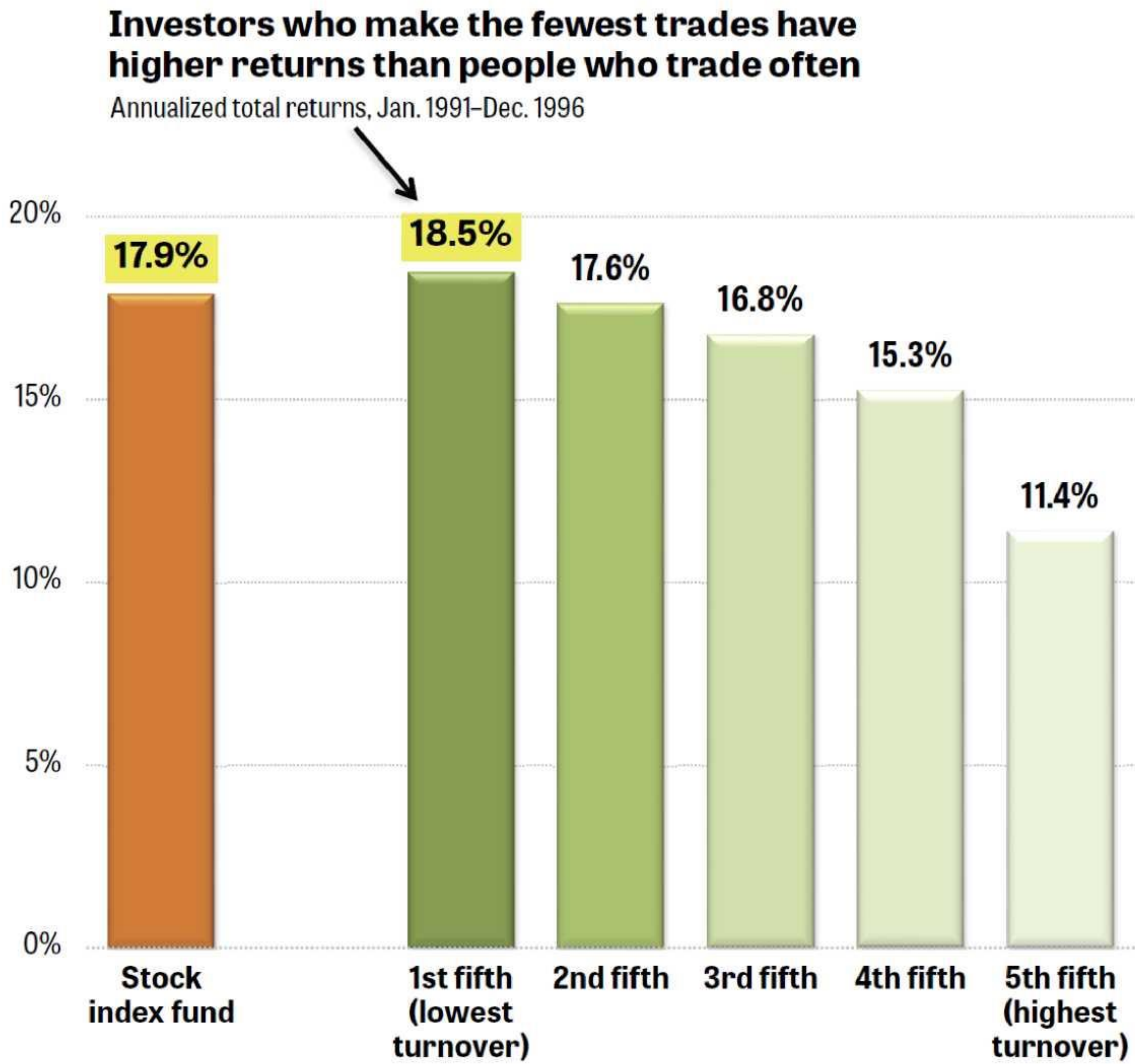
- Require **no more than monthly** portfolio changes — focus on loved ones, not LCD screens.
- Keep **losses low** during bear markets, with no fear of crashes and no need for market timing.



Source: Brad M. Barber & Terrance Odean, marketshadows.com/2014/08/06/why-do-investors-trade-too-much

Mark Hulbert on the record of market timers

"Just 11 of the 81 stock-market timers — those advisers who try to predict when to get into or out of the market to sidestep declines and participate in rallies — actually made money during the bear market that began after the Internet bubble burst in March 2000 and ended in October 2002."

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"A simple buy-and-hold approach using the Wilshire 5000 over the same period, by contrast, gained an annualized 4.2%, including reinvested dividends."

http://www.marketwatch.com/story/timing-this-market-is-guaranteed-to-make-you-a-loser-2014-08-08

An epidemic of financial illiteracy

Can you answer basic financial questions?

Imagine that the interest rate on your savings account is 1 percent per year and inflation is 2 percent per year. After one year, would you be able to buy with the money in this account ...

- □ A) more than today,
- □ B) exactly the same as today, or
- □ C) less than today?
- □ D) do not know

An epidemic of financial illiteracy

Of the Americans polled, 70% could not correctly answer this financial question and two equally easy ones.

Source: Annamaria Lusardi and Olivia Mitchell, Journal of Economic Literature, 2014

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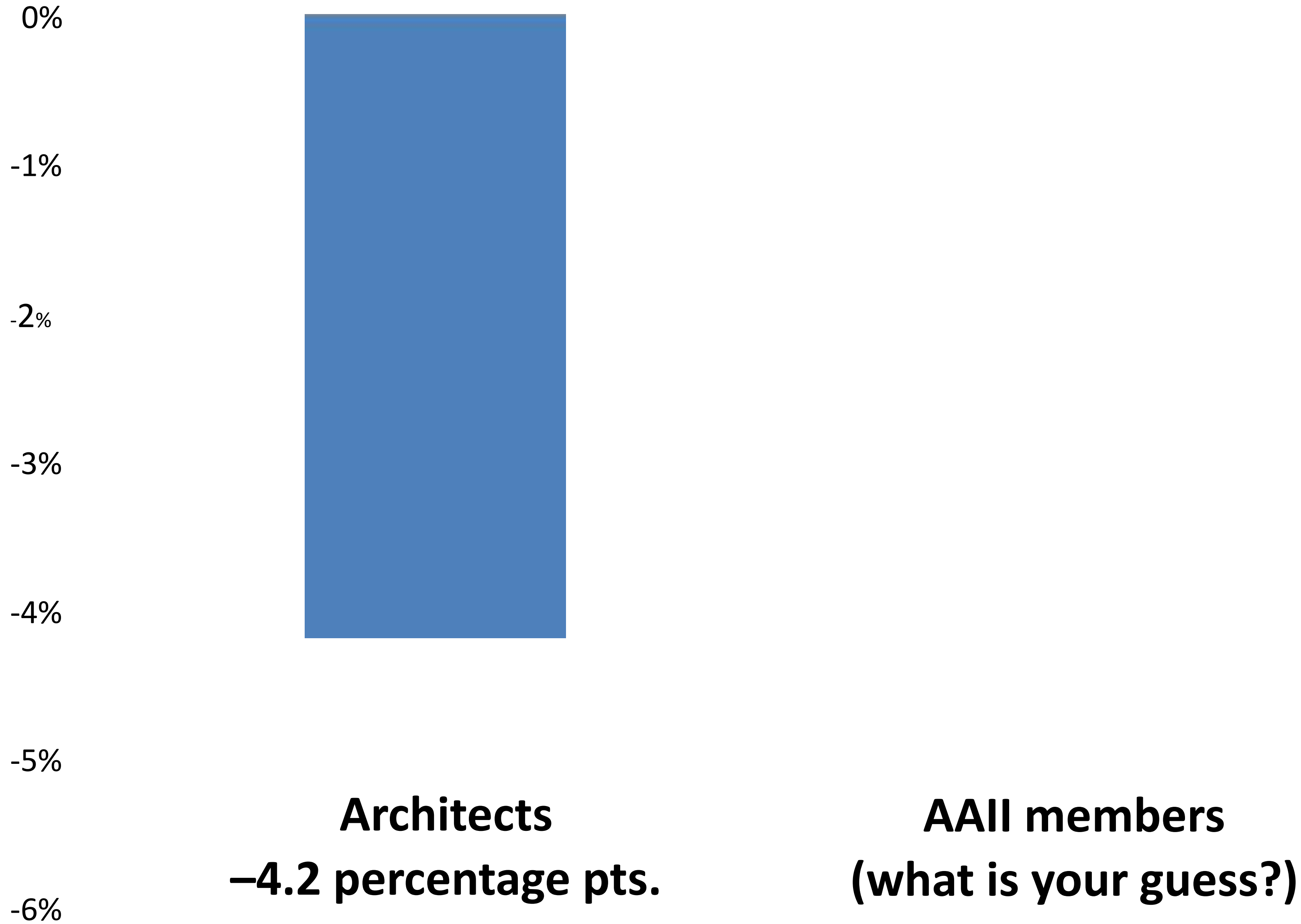
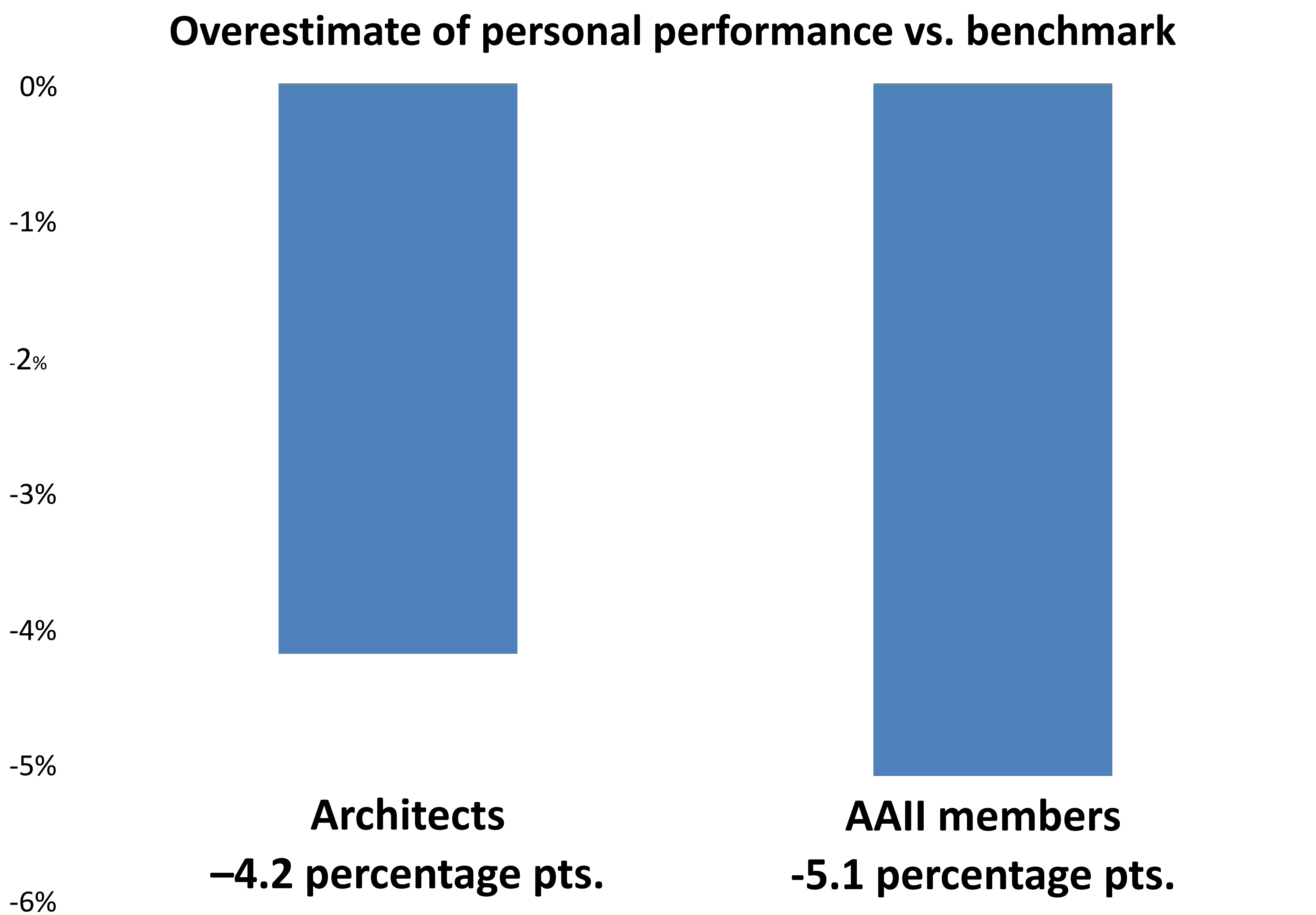
Overestimate of personal performance vs. benchmark



Source: William Goetzmann & Nadav Peles, psychologytoday.com/blog/mind-my-money/200806/what-was-your-portfolio-return



Source: William Goetzmann & Nadav Peles, psychologytoday.com/blog/mind-my-money/200806/what-was-your-portfolio-return

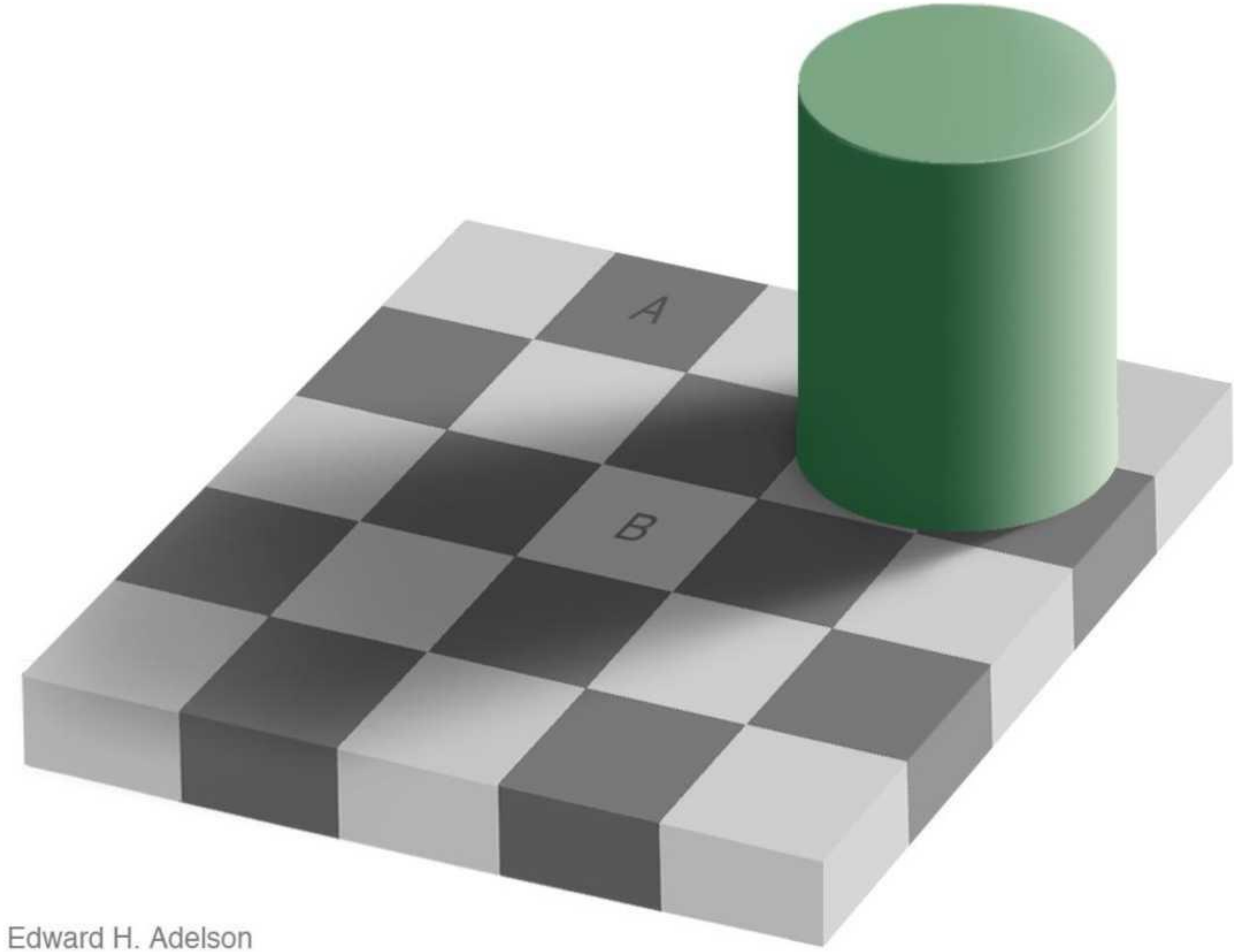
Question:
Which area of the drawing is a lighter shade of gray?

a. Area A

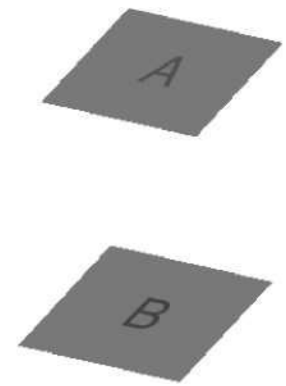
b. Area B

c. They are the same

d. It cannot be determined



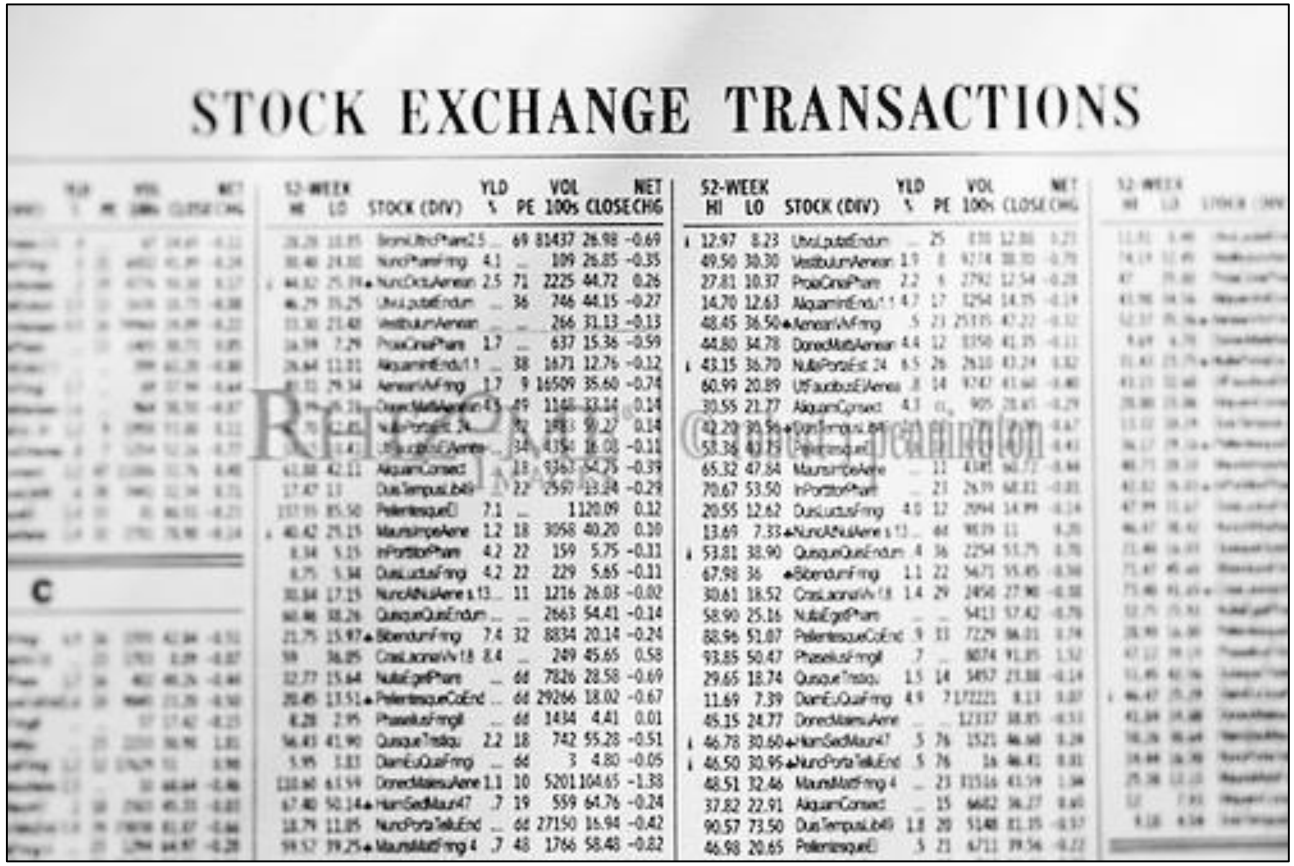
Answer: C. They are the same shade of gray. (Pantone Warm Gray 9)

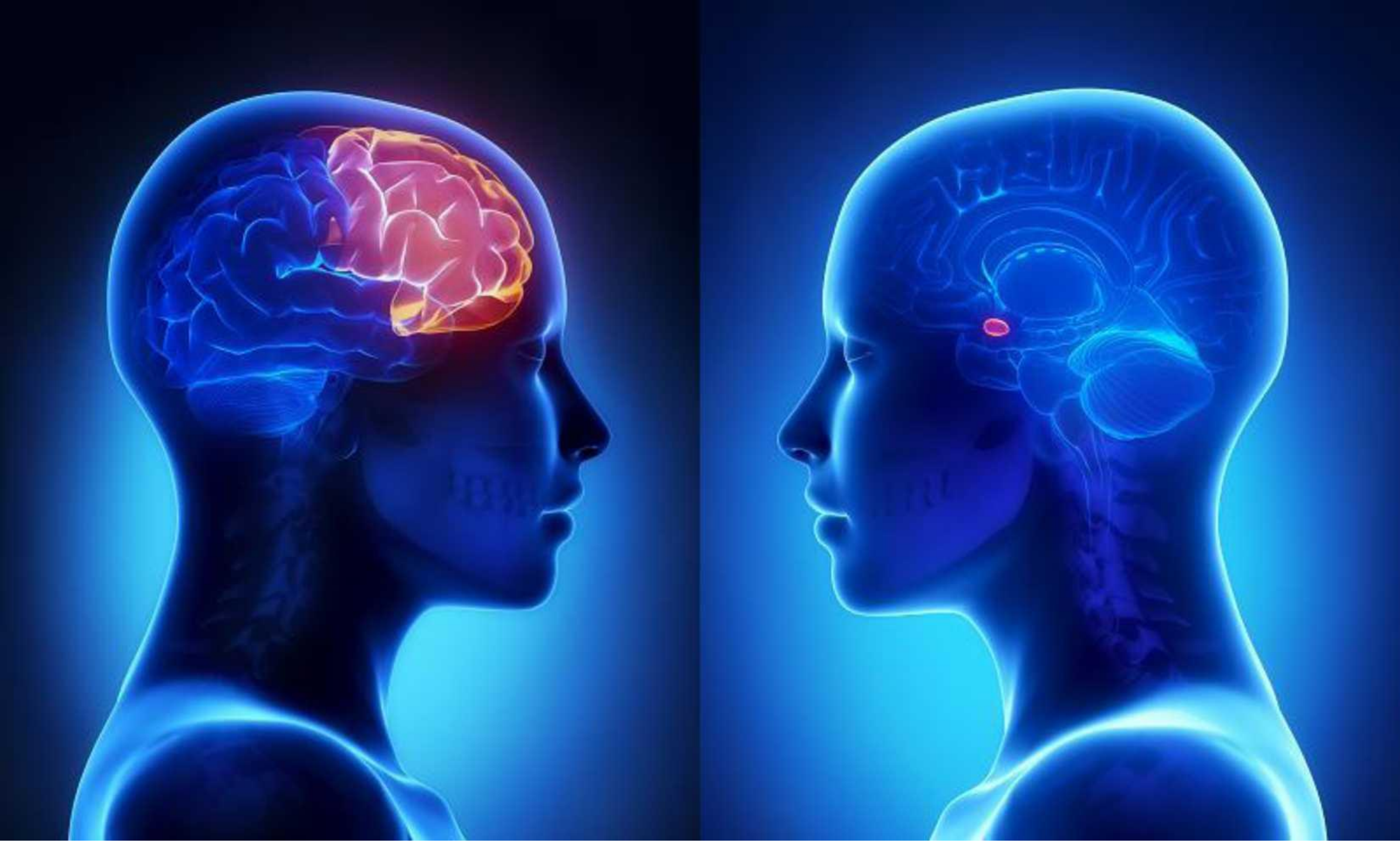


Edward H. Adelson

Which stock on the NYSE will go up the most tomorrow?

a. **The one with the lowest PE**
b. **The one with the highest EPS growth**
c. **It cannot be determined**





When you are confronted with several numbers, your higher mind (prefrontal cortex) shuts down and turns control over to your lower mind (amygdala).

Your amygdala makes you overconfident, leads you into bad financial decisions, and then activates your verbal center to explain why what you did was logical.

RETRAIN
YOUR
BRAIN
AND
RETAIN
YOUR
GAIN

Hulbert on the lack of persistence

The Hulbert Financial Digest has analyzed hundreds of investing newsletters over more than 33 years. A newsletter's past outperformance for ...

Source: Mark Hulbert at the 2013 AAII national conference in Orlando, Florida

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Newsletters needed 15 years of outperformance to have better than a random chance of outperforming in the next 15 years. Even then, the top newsletters had only a 50/50 chance of outperforming in the second 15 years.

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Exception: Newsletters with the worst underperformance tended to underperform again, whether the period was 1, 5, 10, or 15 years.

Source: Mark Hulbert at the 2013 AAII national conference in Orlando, Florida

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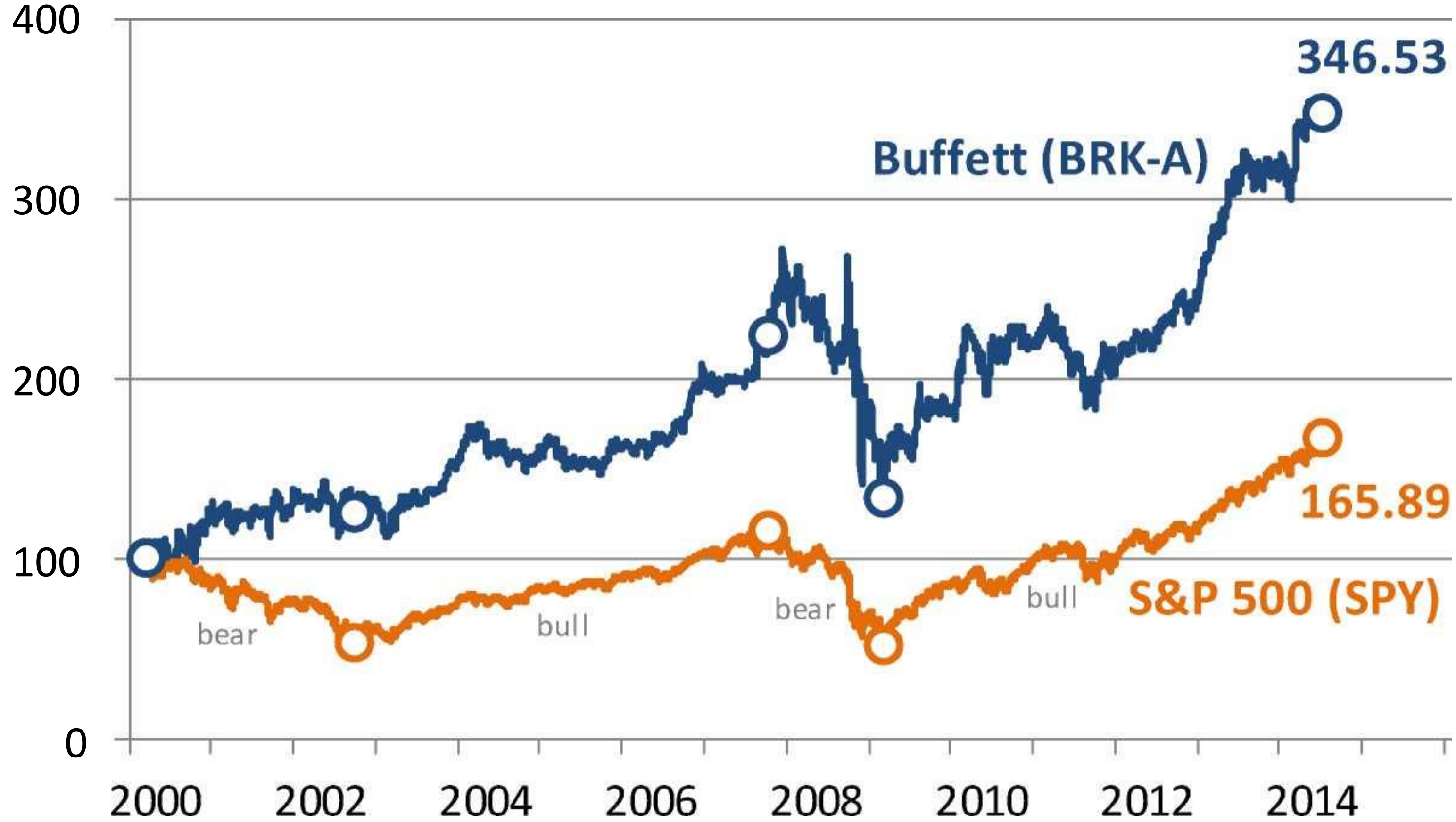
- Backtests should primarily be used as ***crash tests*** to predict future losses.
- The largest drawdown of any strategy will always be in the ***future.***
- Therefore, a strategy with large drawdowns in the past is likely to have ***large drawdowns in the future.***



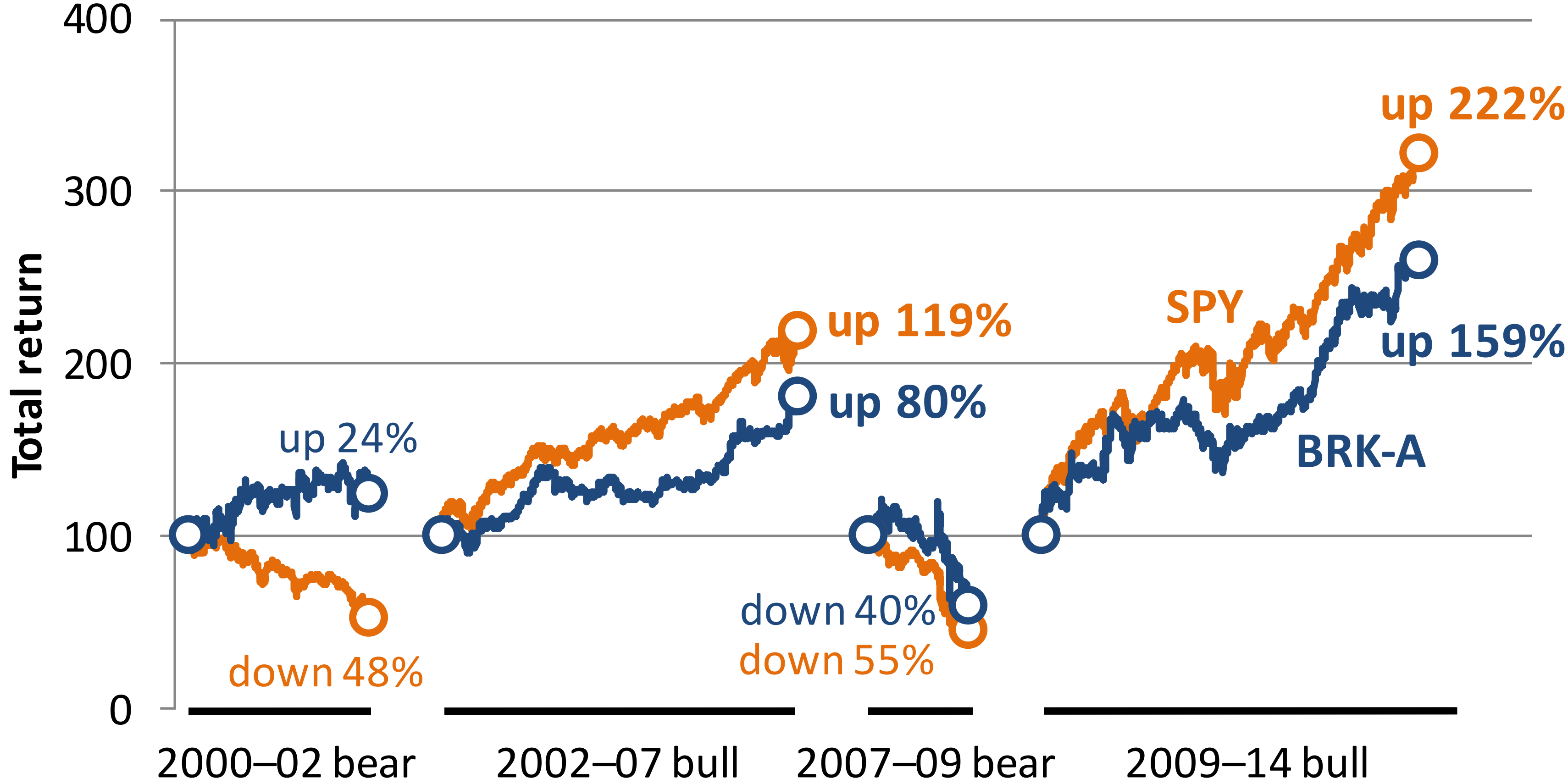
Question: How much did Warren Buffett outperform SPY in both of the last two bull markets?

a. He outperformed by more than 5 percentage points

b. He outperformed by 0 to 5 percentage points

c. He underperformed SPY

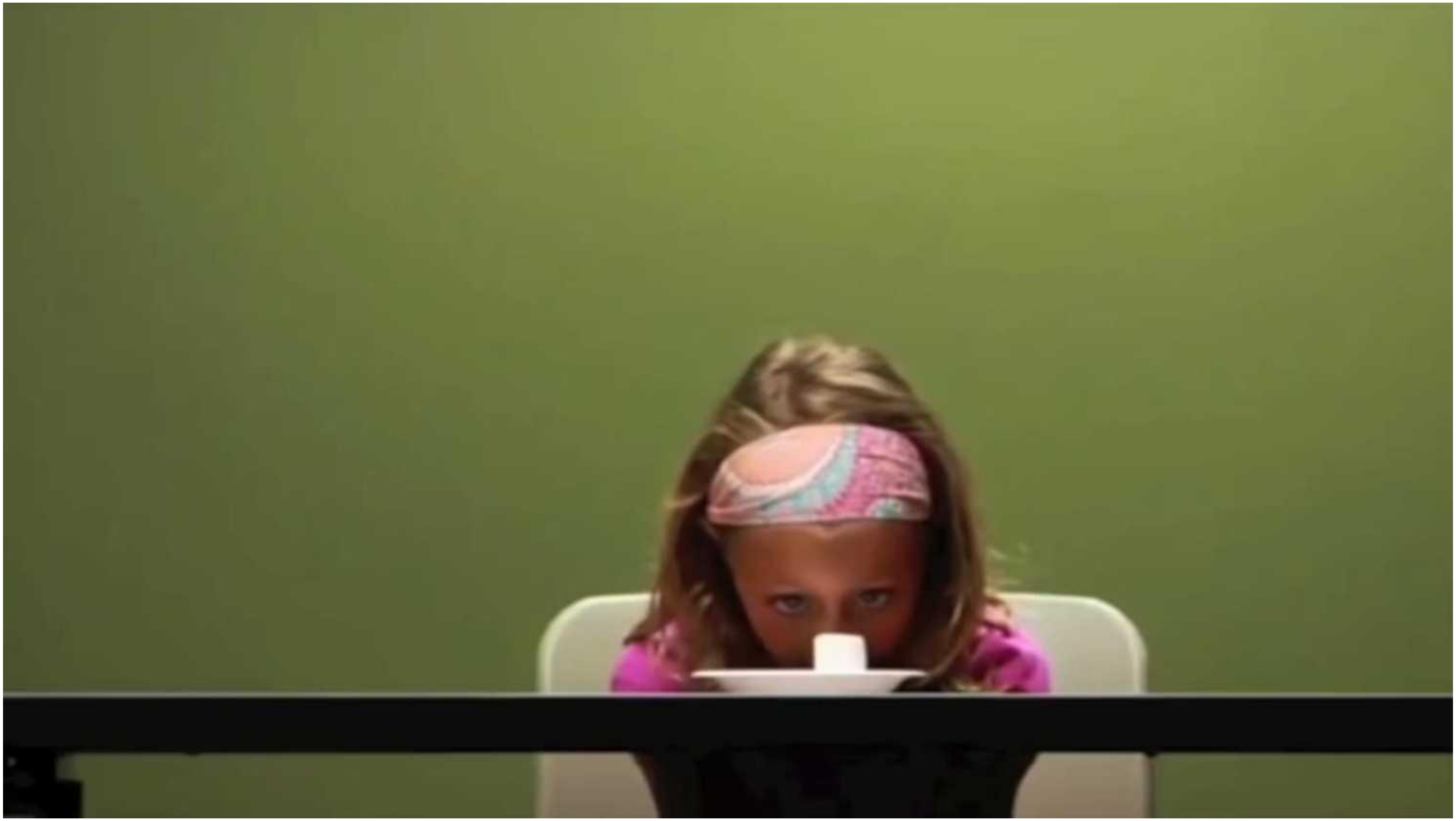
d. It cannot be determined



Answer: C. Warren Buffett underperformed SPY in <u>both</u> of the last two bull markets.

<u>All</u> of his outperformance was due to keeping his losses small in bear markets.

Can you pass the marshmallow test?



Children who waited 15 minutes to receive two marshmallows rather than one showed higher SAT scores, more years of education completed, and lower obesity rates years later. Investors must have patience, too.

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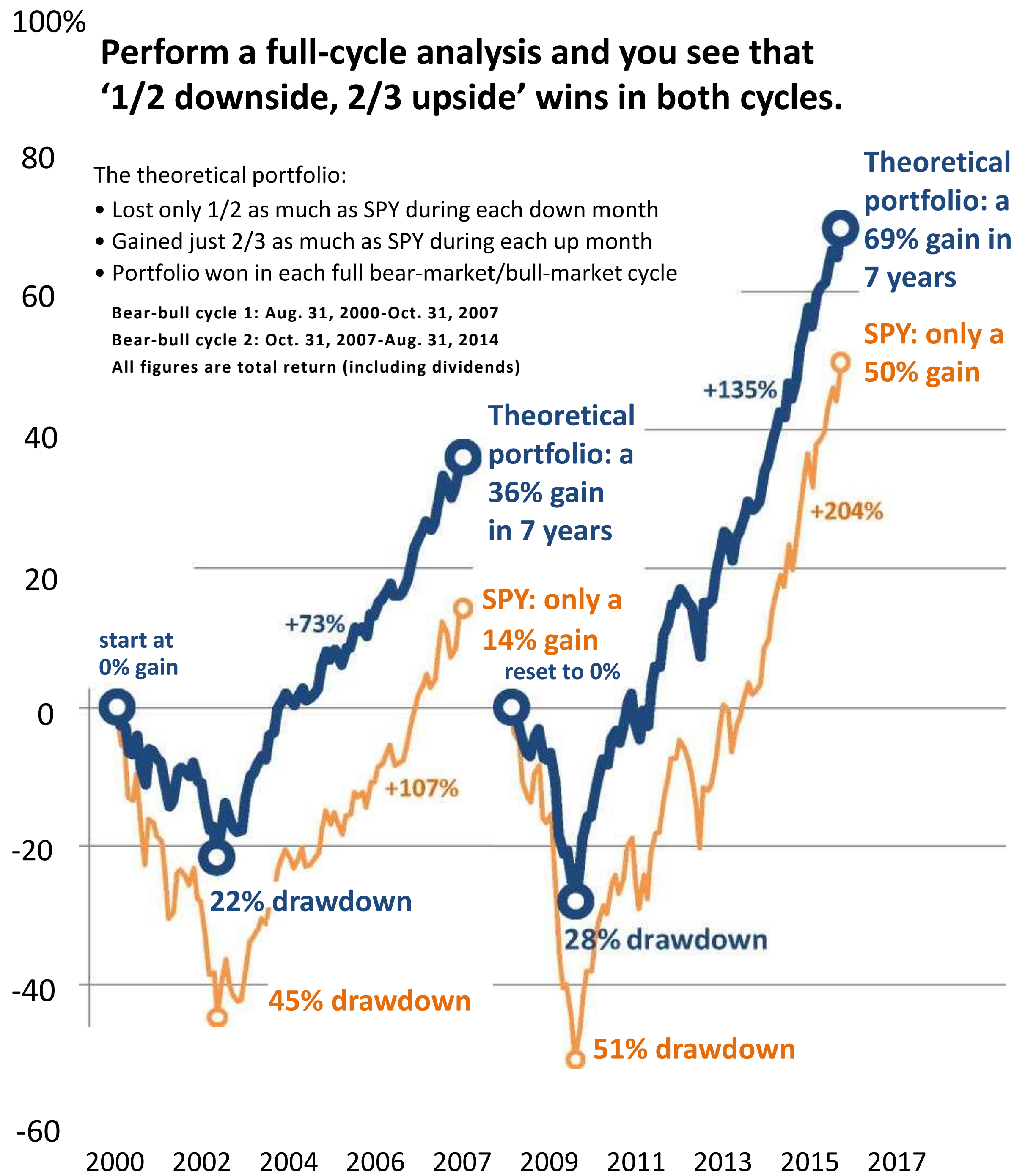
- The fund guarantees that your portfolio will receive 2/3 of the gain of the S&P 500 (SPY) in months that the index went up.
- The fund also guarantees that your portfolio will lose only 1/2 of the loss of SPY in months that the index went down.

The '1/2 down, 2/3 up' rule would have beaten the pants off SPY in the last two complete bear/bull-market cycles.

Keeping losses small during bear markets allows us to benefit from 'conscious underperformance' during bull markets. This, in turn, enables out-performance over each complete market cycle and, more importantly, over the remainder of your lifetime.



The three bedrock principles of investing

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1. **Compounding.** If you leave gains in your portfolio rather than removing them prematurely, your gains will compound, giving you financial freedom.
2. **Diversification.** Asset classes with a low correlation to each other can be combined into a portfolio that's less risky than any single asset class.
3. **Momentum.** Asset classes that have gained the most in the past 3 to 12 months tend to continue to rise over the next one month or more.

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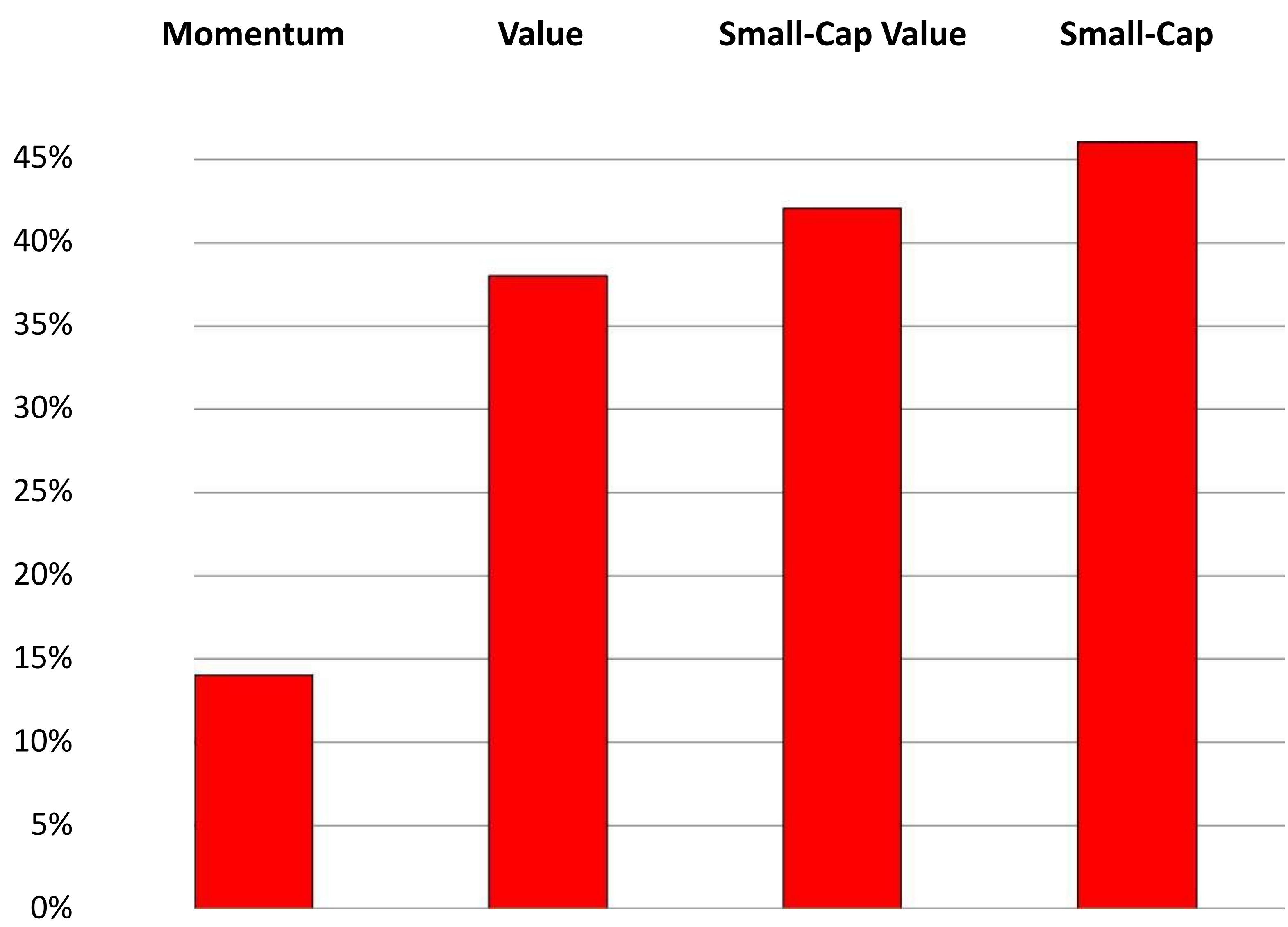
The Momentum Rule is an exception to the principle that past performance does not predict future performance.

Percentage of 36-month periods during 1982 to 2012 when each factor underperformed the broad market

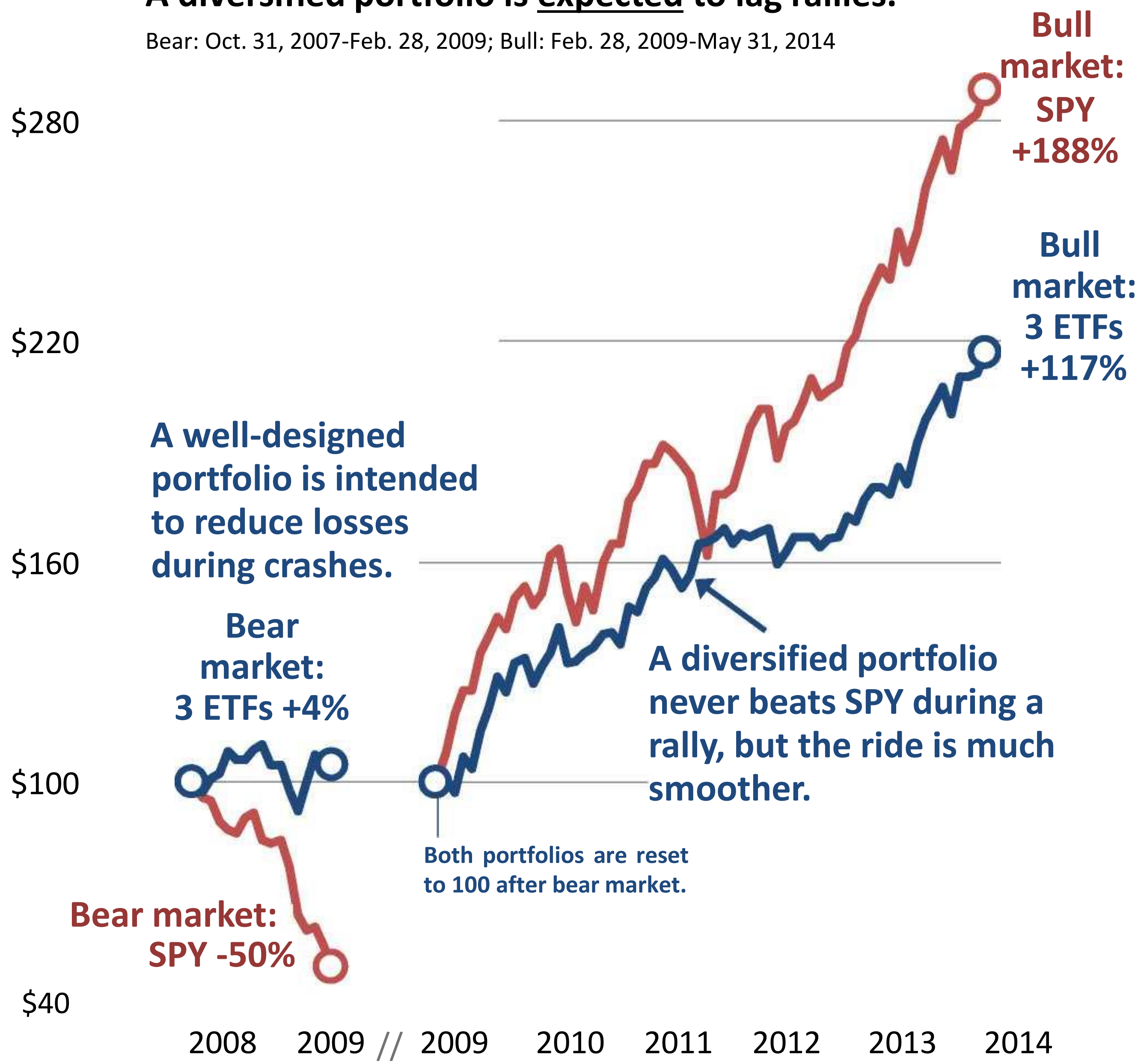


Source: "Fantasy versus Factors," Michael Nairne, advisorperspectives.com/newsletters13/30-fantasy2.php

Hold each month the 3 ETFs with the best momentum out of a universe of 9. *(Muscular Portfolios* calls this the Mama Bear Portfolio.) The strategy gives you 'conscious under-performance' during bull markets but out-performance during bear markets. The result is good performance over all complete bear/bull market cycles.

A diversified portfolio is <u>expected</u> to lag rallies.

Bear: Oct. 31, 2007-Feb. 28, 2009; Bull: Feb. 28, 2009-May 31, 2014



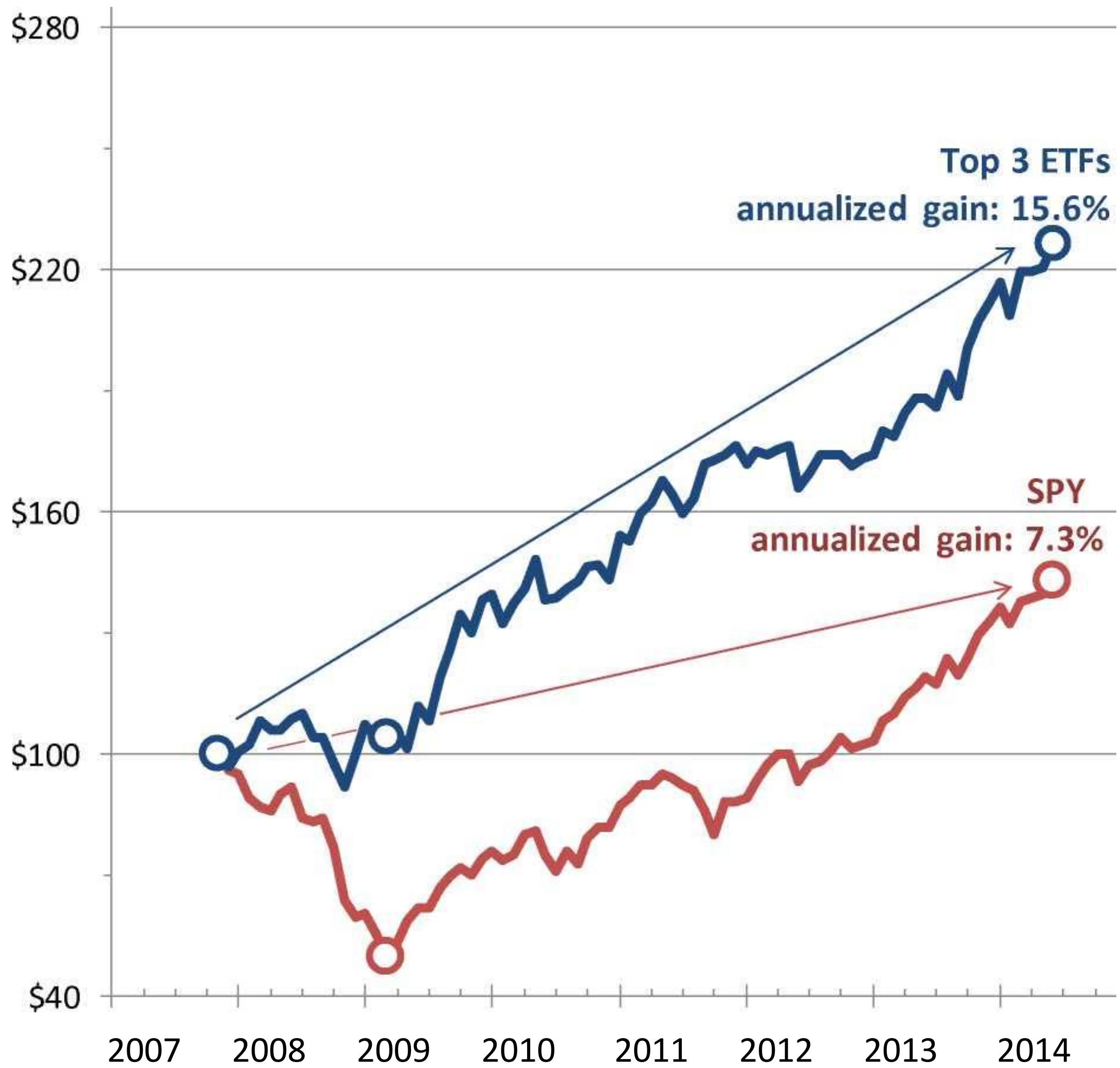
Source of post-discovery returns: CXOAdvisory.com

Holding each month the top 3 ETFs (instead of all 9) has delivered more than twice the annualized rate of gain of SPY in the latest bear/bull market cycle (through May 2014). In the 2007-2009 financial crisis, the maximum drawdown was only 17% instead of SPY's 50%.

Source of post-discovery returns: CXOAdvisory.com

...which helps it excel over an entire market cycle.

Better performance in bear markets produces better performance overall.



The Mama Bear Portfolio investing universe

Source: *Muscular Portfolios* (2018)

Asset class	Security name	Symbol
US large-cap stocks	Vanguard Russell 1000 ETF	VONE
US small-cap stocks	Vanguard S&P 600 ETF	VIOO
Developed-market large-cap stocks	Vanguard Europe Pacific ETF	VEA
Emerging-market stocks	Vanguard Emerging Markets ETF	VWO
US real-estate investment trusts	Vanguard REIT ETF	VNQ
Commodities	PowerShares DB Commodity ETF	PDBC
Gold	COMEX Gold Trust ETF	IAU
US Treasury bonds, long-term	iShares Barclays 20+ Year Treasury ETF	TLT
Cash (US T-bills, 1 to 12 months)	iShares Short Treasury ETF	SHV

COLOR KEY

equities alternatives fixed-income

1. Select a day of the month to tune up your portfolio: the 1st Wednesday, the 2nd Friday, whatever is best for you.
2. Use the following free page at MuscularPortfolios.com to find each ETF's 5-month price performance:
   https://MuscularPortfolios.com/mama-bear
3. Out of the nine ETFs in the Mama Bear universe, note the three with the highest 5-month performance.
4. Sell any ETF that's not in the top three, and immediately buy any top-three ETF that you don't already hold.
5. If you already own all three ETFs (because you purchased them in a previous month), do nothing.

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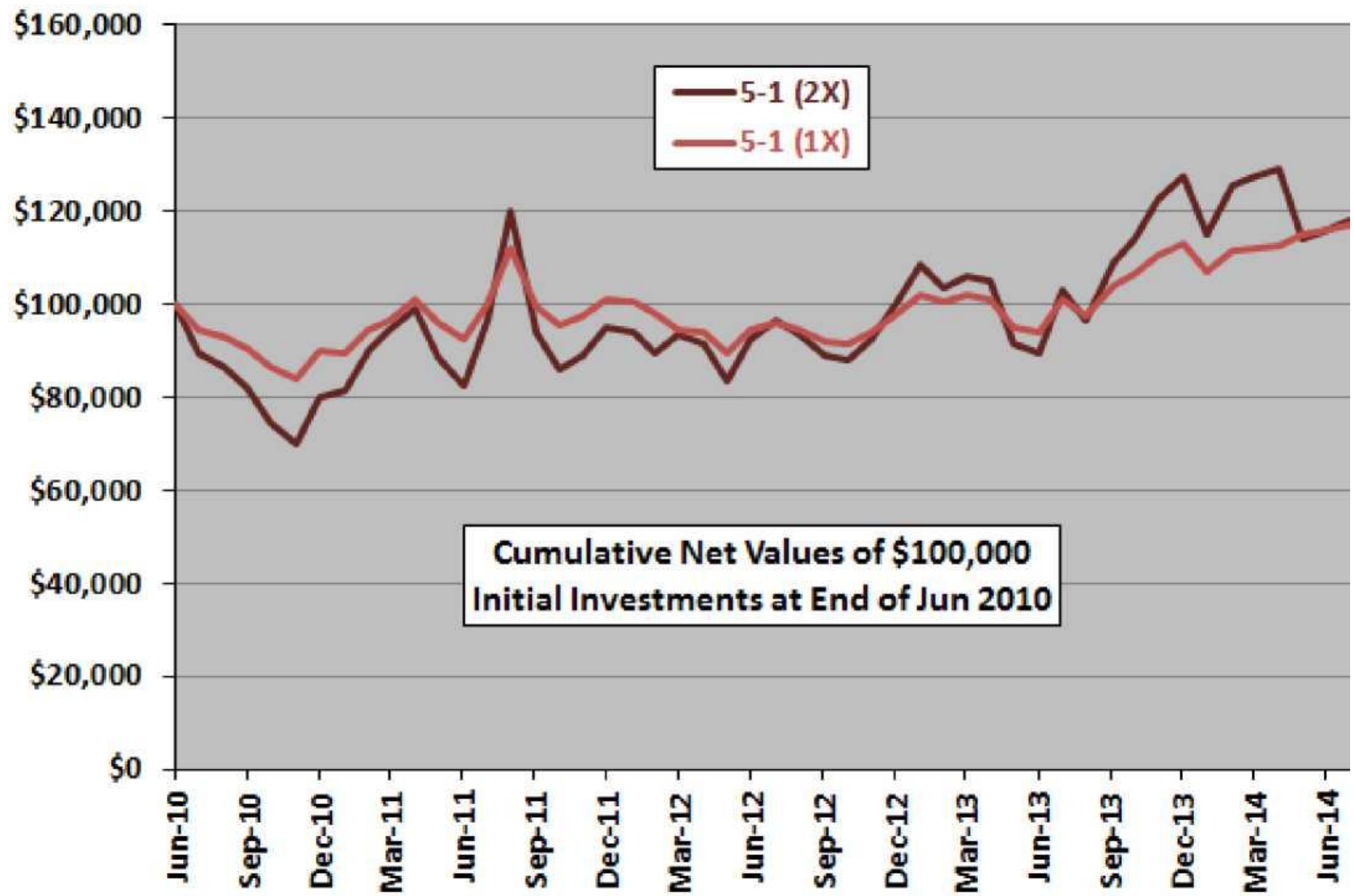
2. **Use mechanical investing** to eliminate:

   (a) the crashes of passive investing and

   (b) the illusions of active investing.
3. **Use diversification and momentum** with low-cost index ETFs to get the optimal combination of small drawdowns and high gain.

Taking on more risk using 2X leveraged ETFs doesn't work

Investors are actually rewarded for *lowering* risk, not increasing it. Buying a 2X leveraged ETF instead of the top normal ETF each month would have given you no better ending value but much worse volatility and maximum drawdowns (about 30% vs. 15%).



Source: http://www.cxoadvisory.com/24916/momentum-investing/simple-asset-class-leveraged-etf-momentum-strategy/


bri.li/money