LONG-TERM REVERSALS, VALUE EFFECT AND MOMENTUM

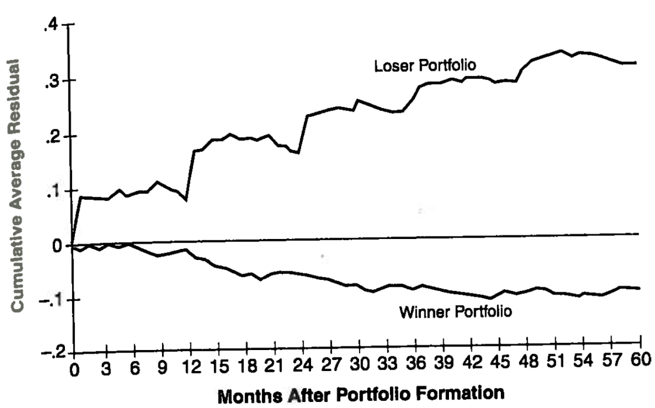
WHAT ARE YOU GOING TO LEARN?

- Three types of anomalies in the cross-section of average returns
  - Long-term reversals
  - Value effect
  - Momentum
- How are these patterns linked to typical behavioral mistakes?

LONG-TERM REVERSALS: DE BONDT-THALER WINNER LOSER EFFECT

- Take all stocks on the NYSE.
- Rank them by their past three-year cumulative return.
- Form two portfolios: a 'winner' portfolio with the best prior record and a 'loser' portfolio with the worst performers.
- Then look at the average return to these two portfolios over the next three years.
- The average return of the loser portfolio is higher than the average return of the winner portfolio by about 8% per year!

LONG TERM REVERSALS: WINNER-LOSER EFFECT



DOES THE STOCK MARKET OVERREACT?

- Representativeness
  - Investors who rely on representativeness heuristic become overly pessimistic about past losers and overly optimistic about past winners.

"STOCKS OF GOOD COMPANIES ARE BAD STOCKS" – SOLT AND STATMAN (1989)

- In investors' minds:
  - Stocks of good companies are representative of successful companies, high earnings, high returns.
  - Poor companies are representative of low earnings and poor returns.

AN EXAMPLE OF TWO STOCKS: DELL AND UNISYS

- Dell Computers sell custom-made computers directly to customers.
  - In June 1997, sales had risen by 47 percent, earnings per share had doubled, and the stock had soared with a rate of return of 161 percent over the preceding years.
- Obviously, in investors' minds, Dell Computers was representative of a successful company.

AN EXAMPLE OF TWO STOCKS: DELL AND UNISYS

- Unisys resulted from a 1986 takeover by Burroughs of Sperry Univac.
  - Both struggling companies at the time.
  - After the merger, they became one large struggling company.
  - By June 1997, Unisys had lost billions, market share had fallen, and the share price was down.
- Obviously, in investors' minds, Unisys was representative of an successful company.

HOW DO INVESTORS FORM THEIR RETURN EXPECTATIONS?

- In June 1997, Professor Shefrin of Santa Clara University conducted a survey of investors' expectations (MBA students who were living and working in Silicon Valley at the time).
  - The respondents expected DELL would return 20.9 percent over the next year.
  - Unisys was expected to have a return of 6.3 percent over the next year.

WHAT HAPPENED?

- Between July 1997 and June 1998, Dell price continued to soar – returning 216%.
- As for Unisys, over the same period, it returned 270.5%.

SUMMARY

- Long-term reversal: winner –loser effect
- Investor overreaction
  - Representativenes

VALUE EFFECT

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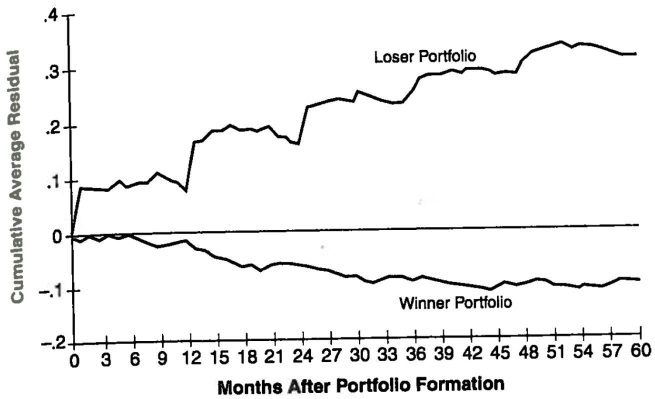
LONG TERM REVERSALS: WINNER-LOSER EFFECT



Shefrin, H. (2000), Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing, p35 .

VALUE INVESTING

- Long-standing tradition of "value investing" dating back to Benjamin Graham and David Dodd's investment classic *Security Analysis* published in 1934
  - Find securities that are *cheap* relative to their intrinsic long-run value

PRICE-EARNINGS (P/E) RATIO

- Price-earnings (P/E) ratio – the price per share divided by annual earnings per share.
- If P/E ratio is high…
  - investors are paying a lot per dollar of earnings.
  - A high P/E ratio indicates that earnings will grow fast to justify the current price.
- Conversely, if P/E ratio is low…
  - Market forecasts that earnings will remain low…

PREDICTIVE POWER OF SCALED-PRICE RATIOS

- Low P/E (value) stocks outperform high P/E (growth) stocks.

BEHAVIORAL EXPLANATION: OVERREACTION

- High P/E (glamour/growth) stocks have gone up "too high" because investors have become overly optimistic of future growth rates.
- Low P/E (value) stocks have sunk "too low" because investors have become excessively pessimistic.

FAMA-FRENCH THREE-FACTOR MODEL

- According to the efficient market school, size and book-to-market reflect systematic risk.

SUMMARY

- Value investing
- Investor overreaction
  - Representativenes

MOMENTUM EFFECT

WHAT ARE YOU GOING TO LEARN?

- Three types of anomalies in the cross-section of average returns
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MOMENTUM EFFECT

- Take all stocks traded on the NYSE.
- Rank them into ten groups based on their prior six-month return.
- Then compare the average return over the subsequent six-months.
- The portfolio of biggest prior winners outperforms the portfolio of the biggest prior losers by an average of 10% per year. (Jegadeesh and Titman (1993).

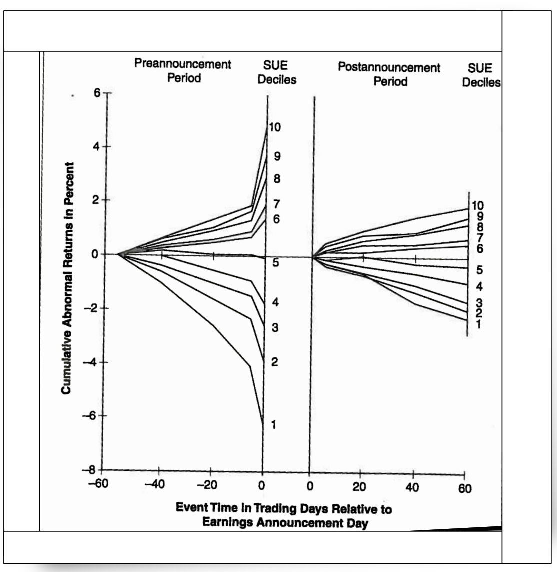
MOMENTUM RETURNS 1927 – 2014

(SOURCE: KEN FRENCH DATA LIBRARY)

MOMENTUM VS. LONG-TERM REVERSAL

- The length of the prior ranking period is very crucial!
  - Momentum: past winners continue to win!
  - Long-term reversal: past winners perform poorly!

POST-EARNINGS ANNOUNCEMENT DRIFT



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WHICH BEHAVIORAL BIASES?

- Overconfidence and anchoring
  - Investors are slow to recognize the information.
  - They remain overconfidently anchored to their prior views.
  - They underweight the evidence that disconfirms their prior views.

MOMENTUM VS LONG-TERM REVERSAL

- Underreaction in the intermediate term vs. long-term overreaction
  - Conservatism bias
  - Representativeness bias

SLOW DIFFUSION OF INFORMATION

- Momentum is due to slow diffusion of private information in the economy
  - Greater momentum effect among small firms and firms low analyst coverage

SUMMARY

- Momentum
  - A combination of overconfidence, together with anchoring leads investors to adapt insufficiently to the arrival of new information.