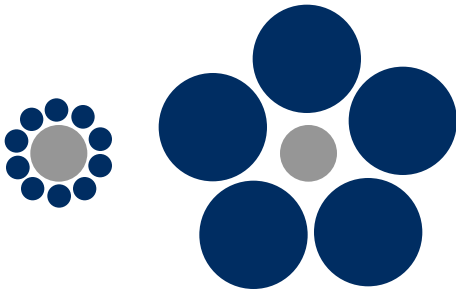


---

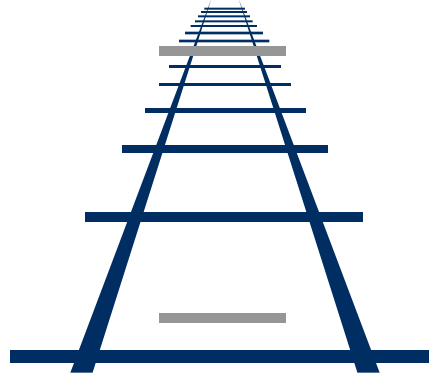
# INVESTOR BEHAVIOR

# SEEING IS NOT BELIEVING

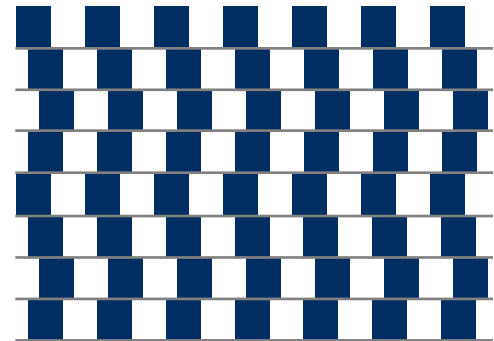
Which gray circle is bigger?



Which gray bar is longer?

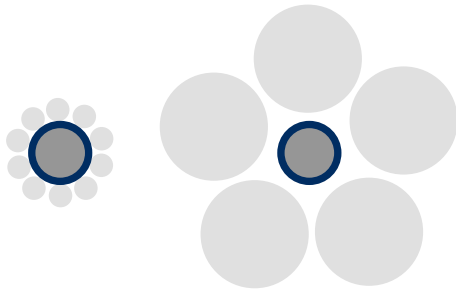


Are the gray horizontal lines parallel?

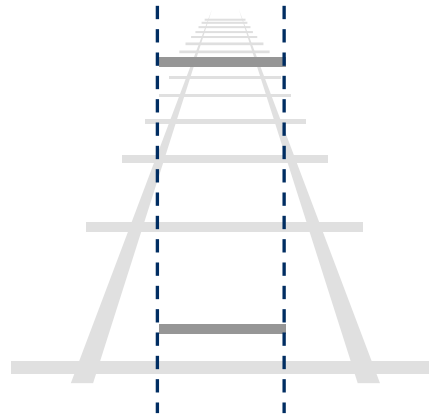


# RATIONAL MINDS CAN ACT IRRATIONALLY

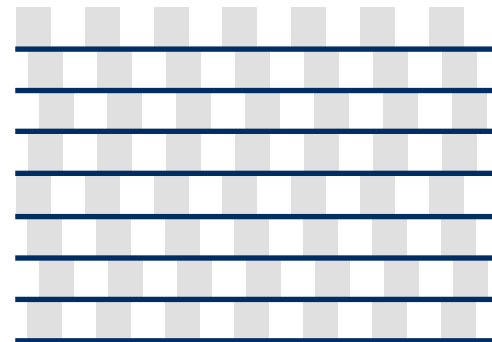
They are the same size.



They are the same size.



The horizontal lines are parallel.



---

## THE EFFICIENT-MARKET THEORY

---

- Security prices efficiently incorporate all public information
- They reflect their true investment value at all times
- Asset allocation relies on market efficiency and rational investor behavior
- However, investors do not always behave rationally

---

## PATTERNS OF INVESTOR IRRATIONALITY

---

- Overconfidence
- Hindsight bias
- Short-term focus
- Regret
- Mental accounting
- Hot-hand fallacy

---

# OVERCONFIDENCE

---

## Definition

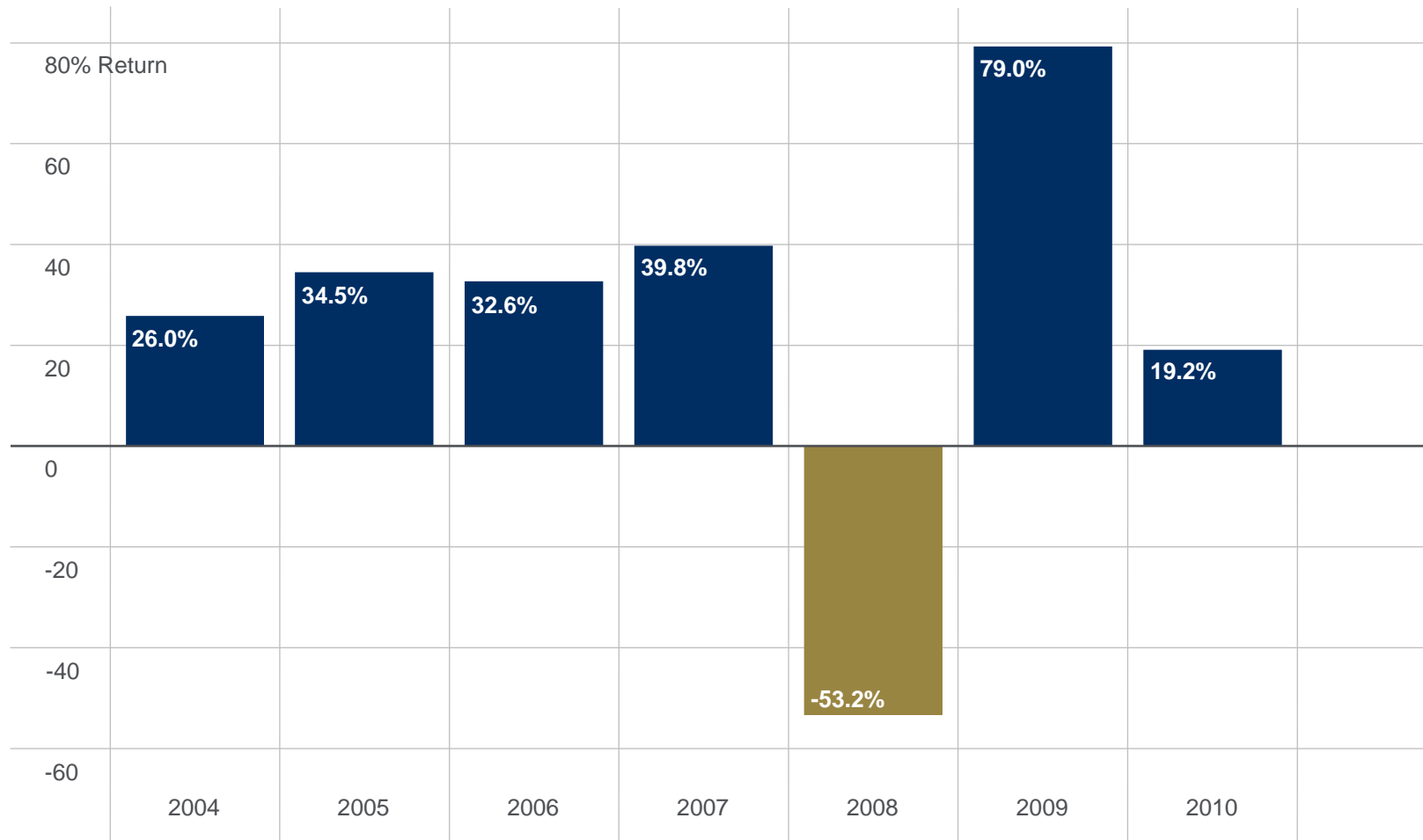
- Rating oneself as above average when it comes to selecting investments

## Implications

- Miscalculating the probability of good outcomes
- Focusing on the potential upside of investments
- De-emphasizing the potential downside of investments

# OVERCONFIDENCE: FALSE PERCEPTION

## HISTORICAL PERFORMANCE OF EMERGING-MARKET STOCKS 2004 – 2010



Past performance is no guarantee of future results. • An investment cannot be made directly in an index. • This is for illustrative purposes only and not indicative of any investment. Created by Raymond James using Ibbotson Presentation Materials. • © 2011 Morningstar. All Rights Reserved. 3/1/2011

---

# HINDSIGHT BIAS

---

## Definition

- Believing that unpredictable past events, in retrospect, were obvious and predictable

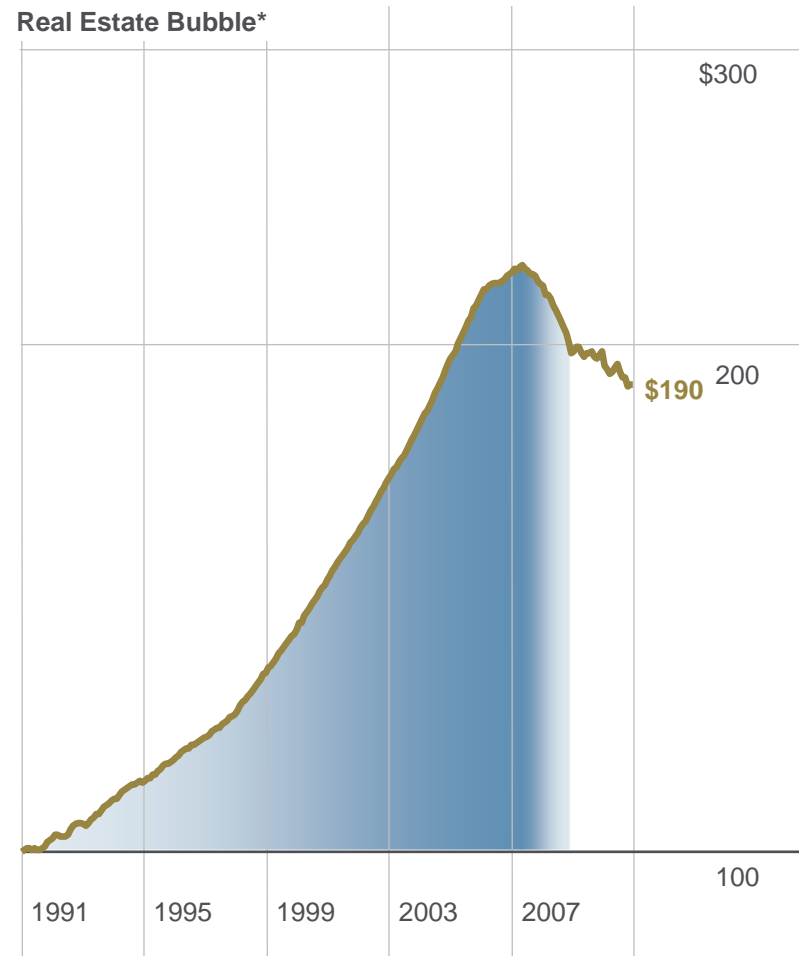
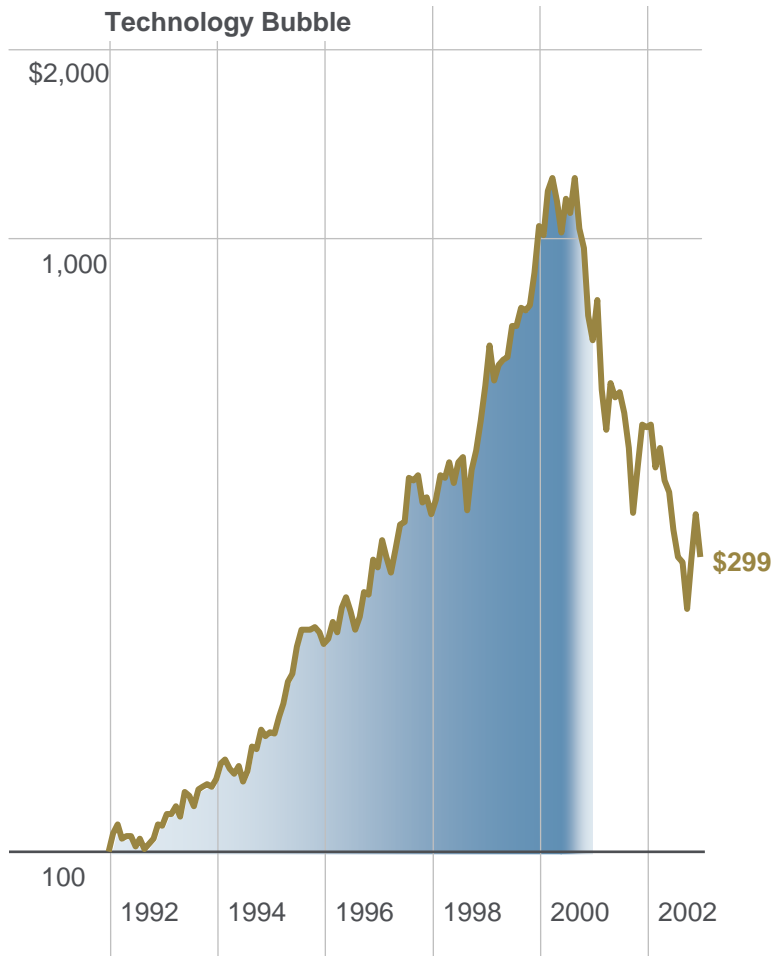
## Implications

- Feelings of anger and regret
- Failure to avoid what appears to have been foreseeable
- Overconfidence



# HINDSIGHT BIAS: TECHNOLOGY AND REAL ESTATE BUBBLES

## AN EXAMINATION OF TECHNOLOGY STOCKS AND HOME VALUES



Past performance is no guarantee of future results. • An investment cannot be made directly in an index. • \*Data available through November 2010. This is for illustrative purposes only and not indicative of any investment. Created by Raymond James using Ibbotson Presentation Materials. © 2011 Morningstar. All Rights Reserved. 3/1/2011

---

## SHORT-TERM FOCUS

---

### Definition

- Inappropriately focusing on short-term risk versus long-term risk

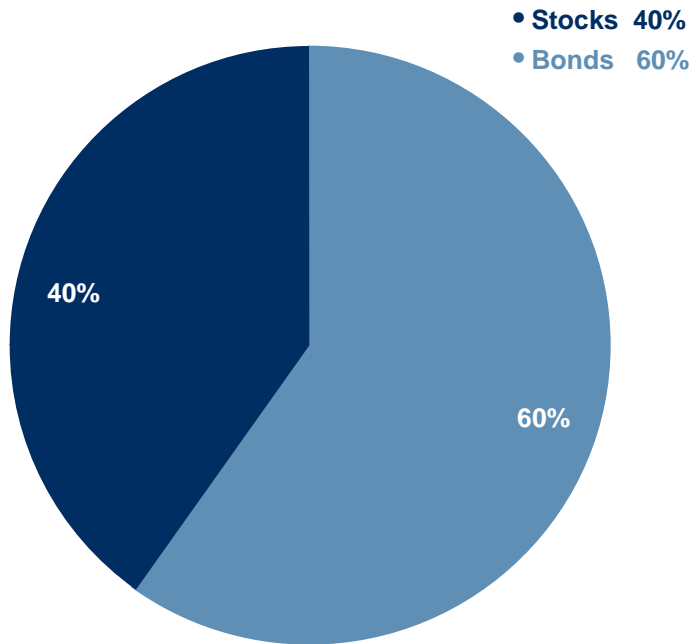
### Implications

- Many investors talk long term but act short term
- Overly sensitive to interim volatility regardless of time horizon
- May tend to behave as though their time horizon is far shorter than it truly is

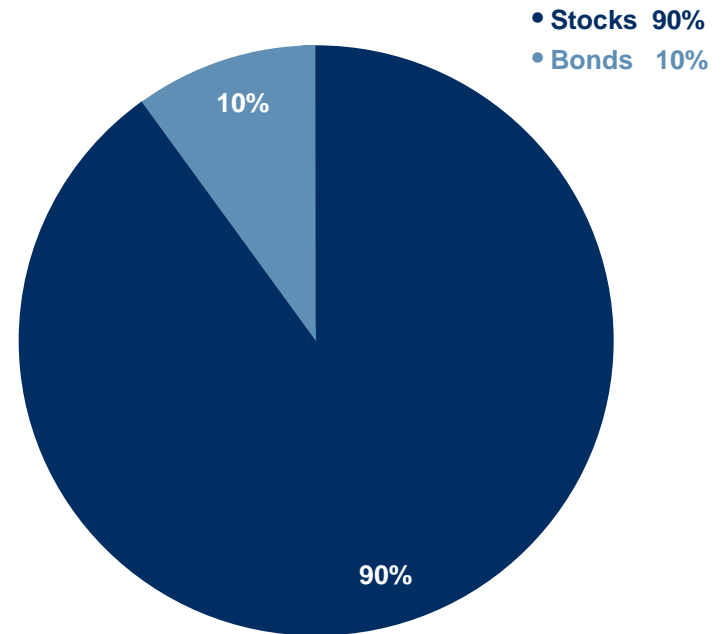
# SHORT-TERM FOCUS: AVOIDING POTENTIAL NEAR-TERM LOSSES

## CHOICE OF ASSET ALLOCATION AFTER EXAMINING DIFFERENT RETURN DISTRIBUTIONS

When shown a distribution of **one-year returns**, investors allocated 40% to stocks.



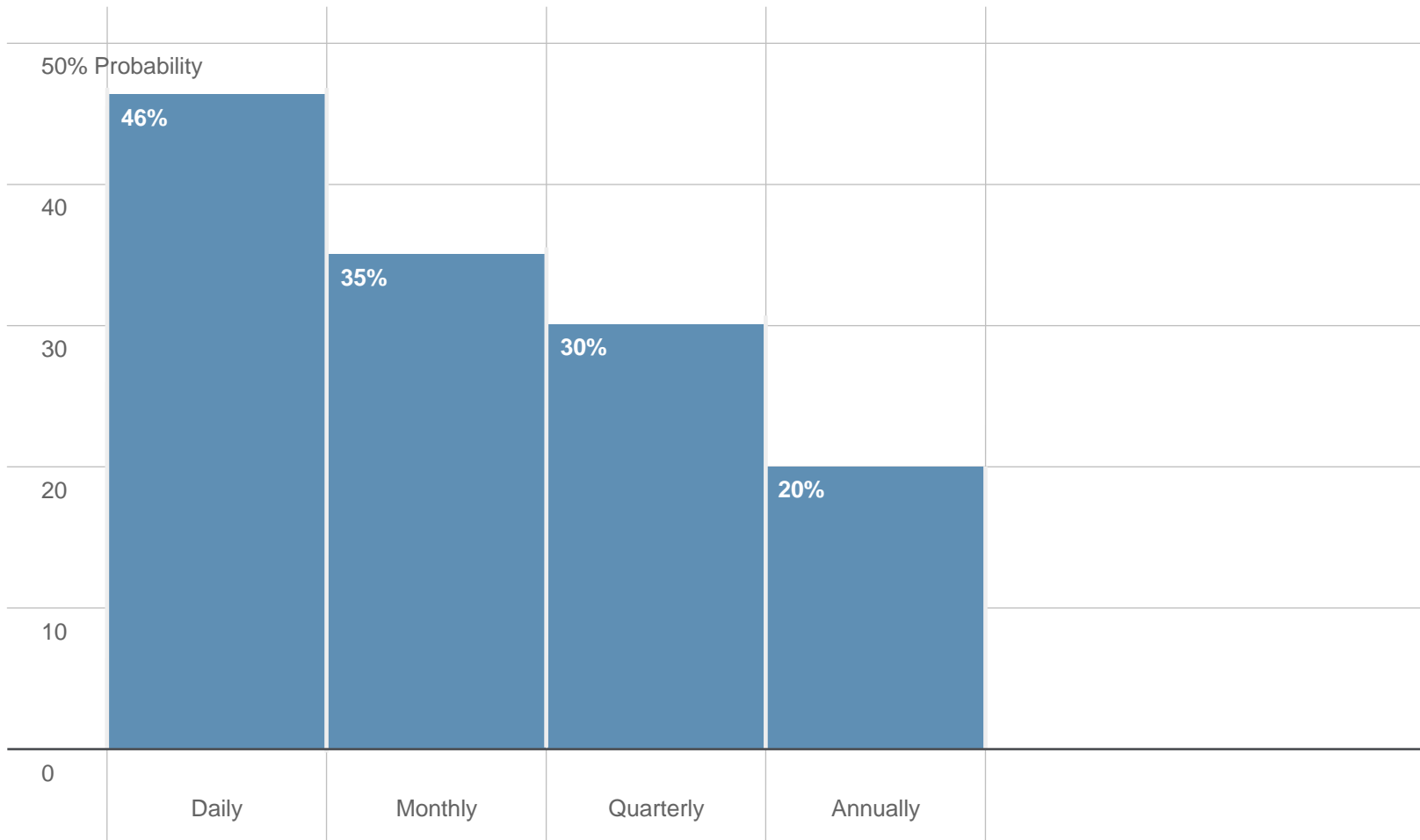
When shown a distribution of **30-year returns**, investors allocated 90% to stocks.



Source: Shlomo Benartzi and Richard H. Thaler, "Risk Aversion or Myopia? Choices in Repeated Gambles and Retirement Investments," March 1999. Created by Raymond James using Ibbotson Presentation Materials. © 2011 Morningstar. All Rights Reserved. 3/1/2011

# SHORT-TERM FOCUS: COPING WITH NEAR-TERM FLUCTUATIONS

## PROBABILITY OF LOSING MONEY IN THE MARKET 1991 – 2010



Past performance is no guarantee of future results. • An investment cannot be made directly in an index. • This is for illustrative purposes only and not indicative of any investment. Created by Raymond James using Ibbotson Presentation Materials. © 2011 Morningstar. All Rights Reserved. 3/1/2011

---

# REGRET

---

## Definition

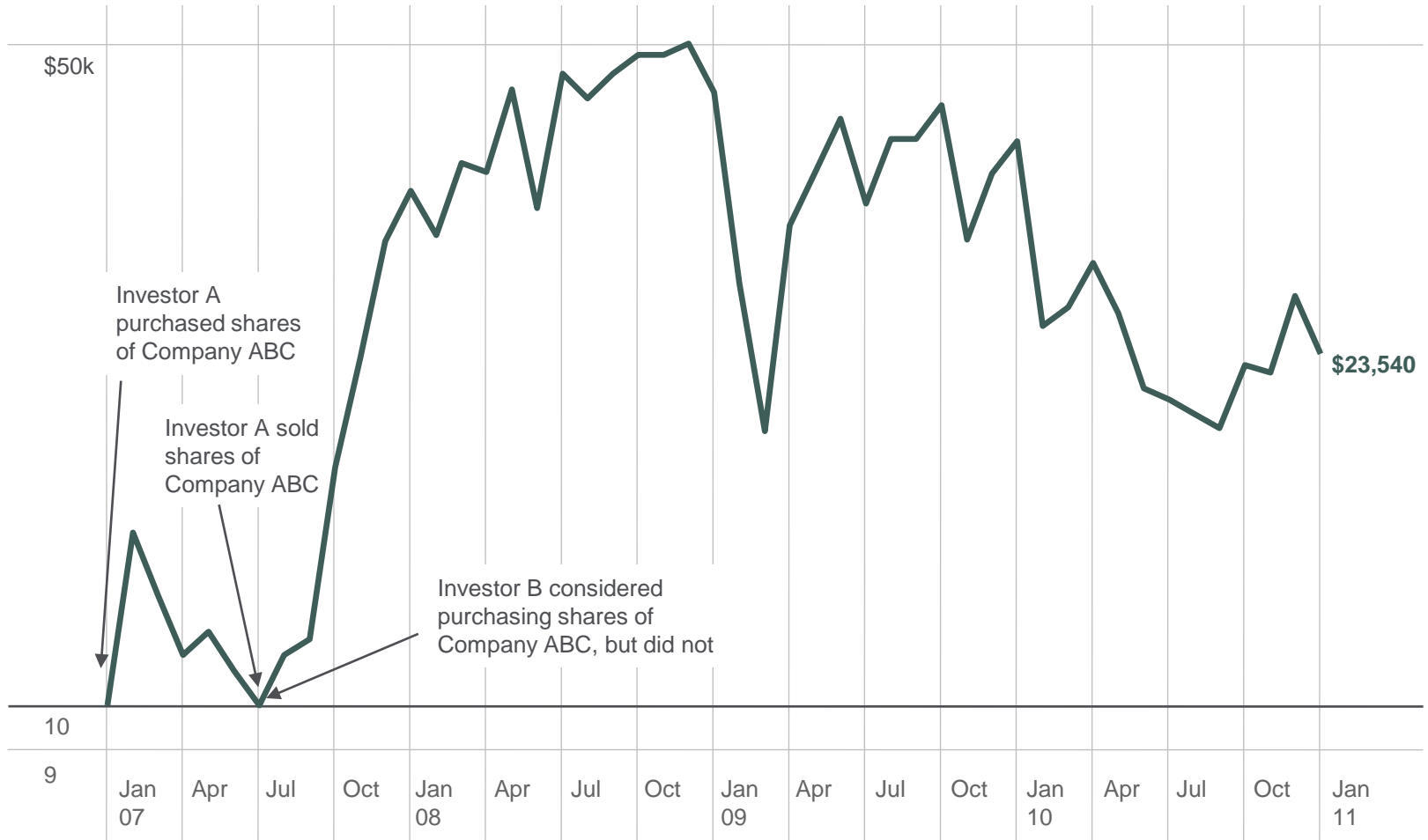
- Having illogical feelings of guilt because of a poor outcome

## Implications

- Investors' future investment decisions might be affected
- Can cause investors to become more risk averse/risk tolerant
- These individuals may blame advisors for perceived mistakes

# REGRET: ACTION VERSUS INACTION

## ANALYZING VARIOUS TYPES OF REGRET



Past performance is no guarantee of future results. • An investment cannot be made directly in an index. • This is for illustrative purposes only and not indicative of any investment. Created by Raymond James using Ibbotson Presentation Materials. © 2011 Morningstar. All Rights Reserved. 3/1/2011

---

# MENTAL ACCOUNTING

---

## Definition

- Mentally compartmentalizing investments while ignoring the aggregate portfolio

## Implications

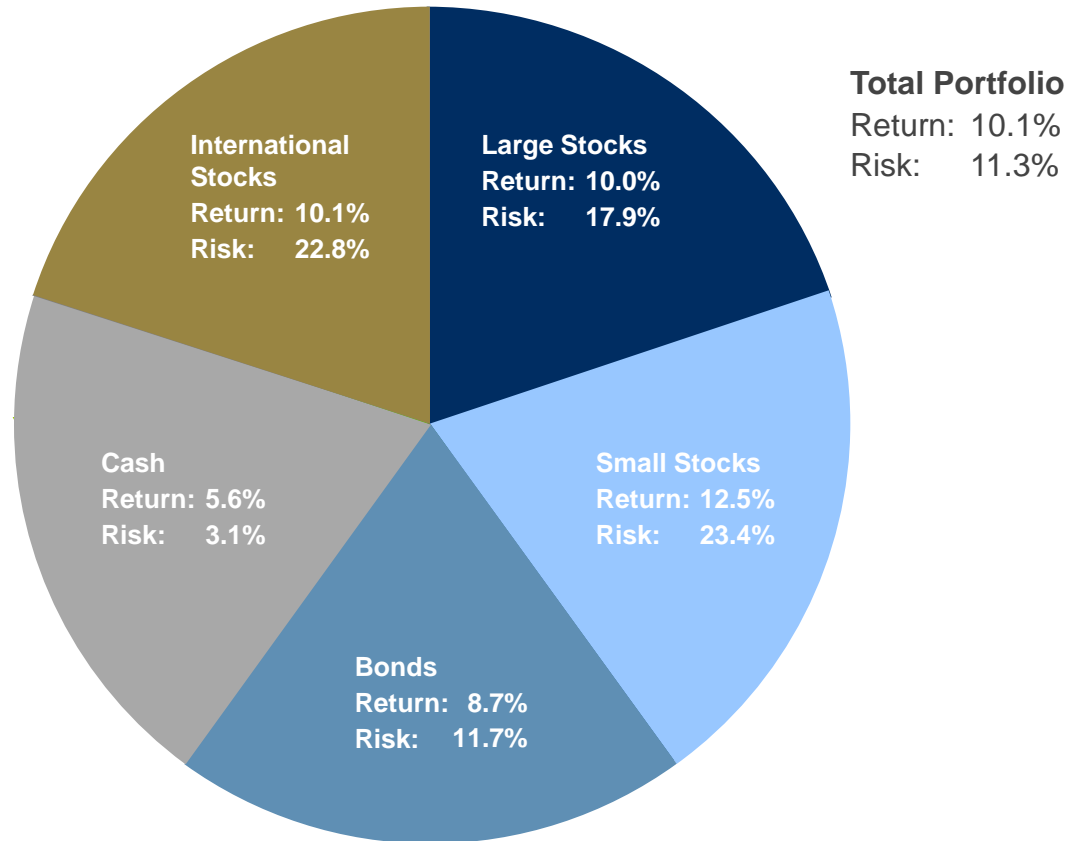
- Investors tend to disaggregate a diversified portfolio
- Risk and return components viewed in a vacuum
- Leads to heightened concern about the riskiness of a component of a portfolio

---

# MENTAL ACCOUNTING: SUM OF THE PARTS

## RISK AND RETURN CHARACTERISTICS 1970 – 2010

---



Past performance is no guarantee of future results. • An investment cannot be made directly in an index. • This is for illustrative purposes only and not indicative of any investment. Created by Raymond James using Ibbotson Presentation Materials. © 2011 Morningstar. All Rights Reserved. 3/1/2011



---

## HOT-HAND FALLACY

---

### Definition

- Perceiving trends where none exist and consequently taking action on this faulty observation

### Implications

- Investors desire to invest in last year's winners
  - Favoring a “hot” money manager or asset class
- Skill is inferred from a random pattern of chance
- Can lead to erroneous assumptions and predictions

# HOT-HAND FALLACY: ASSET CLASS WINNERS AND LOSERS

ANNUAL PERFORMANCE OF VARIOUS ASSET CLASSES 1996 – 2010

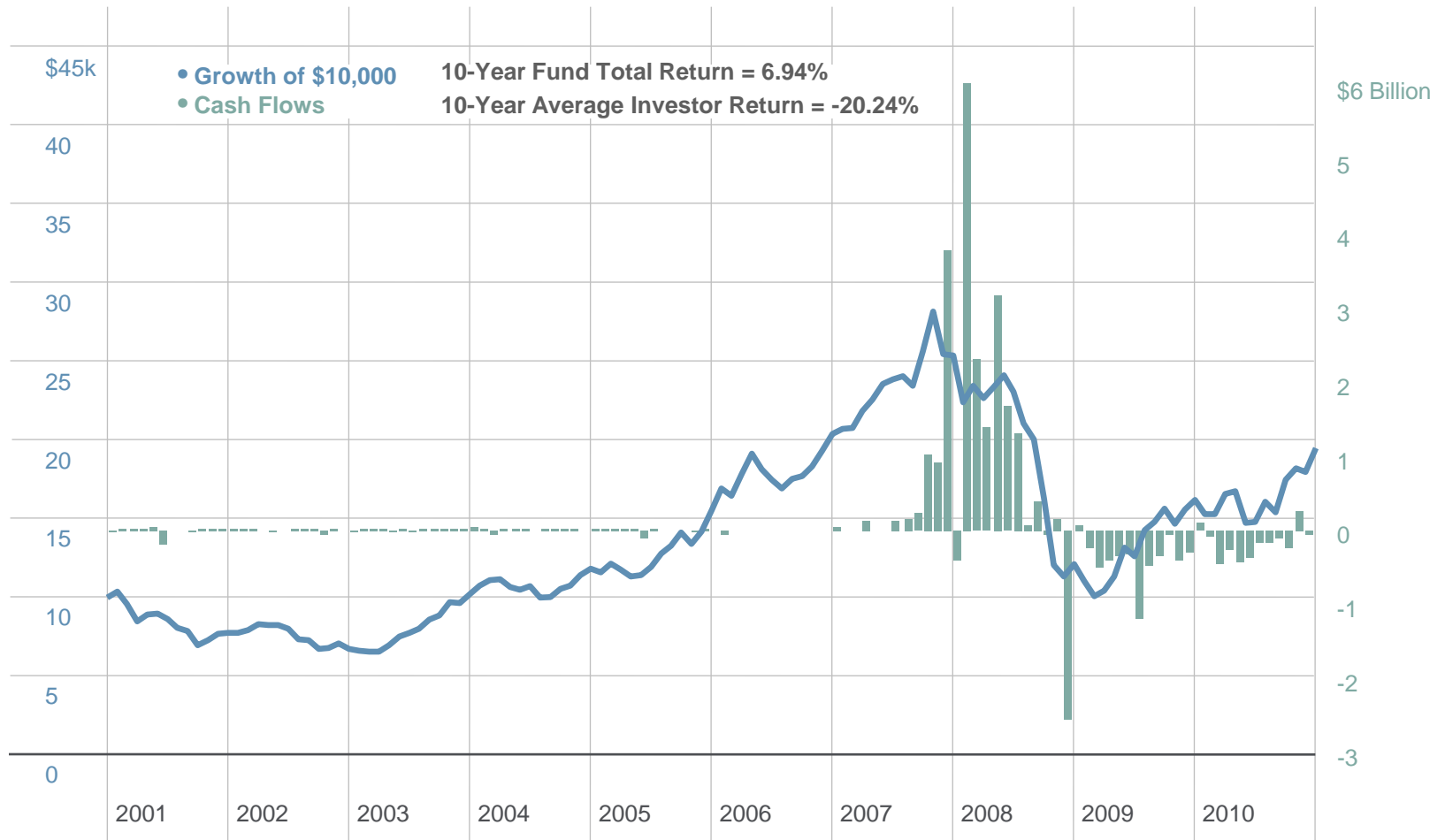
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Highest Return	23.0	33.4	28.6	29.8	21.5	22.8	17.8	60.7	20.7	14.0	26.9	11.6	25.9	32.5	31.3
	17.6	22.8	20.3	27.3	5.9	3.8	1.6	39.2	18.4	7.8	16.2	9.9	1.6	28.1	15.1
	10.3	15.9	13.1	21.0	0.6	3.7	-6.5	28.7	12.0	7.3	15.8	5.5	-20.7	26.5	13.6
	6.4	15.9	12.2	14.3	-3.6	-0.8	-13.3	24.8	10.9	5.7	12.9	5.4	-36.7	14.0	10.1
	5.2	5.3	4.9	4.7	-9.1	-11.9	-15.7	1.4	8.5	4.9	4.8	4.7	-37.0	0.1	8.2
Lowest Return	-0.9	2.1	-7.3	-9.0	-14.0	-21.2	-22.1	1.0	1.2	3.0	1.2	-5.2	-43.1	-14.9	0.1

• **Small Stocks** • **Large Stocks** • **International Stocks** • **Long-Term Government Bonds** • **Treasury Bills** • **Diversified Portfolio**

Past performance is no guarantee of future results. • An investment cannot be made directly in an index. • This is for illustrative purposes only and not indicative of any investment. Created by Raymond James using Ibbotson Presentation Materials. © 2011 Morningstar. All Rights Reserved. 3/1/2011

# HOT-HAND FALLACY: CHASING FUND PERFORMANCE

## WEALTH VERSUS CASH FLOWS 2001 – 2010



Past performance is no guarantee of future results. • An investment cannot be made directly in an index. • This is for illustrative purposes only and not indicative of any investment. Created by Raymond James using Ibbotson Presentation Materials. © 2011 Morningstar. All Rights Reserved. 3/1/2011

---

## SUMMARY

---

- Investor misconceptions can be dangerous
- They need to be identified early and countered in an appropriate manner
- Markets and investing must be viewed in a rational and productive manner

---

## DISCLOSURES

---

- ***Investors should carefully consider the investment objectives, risks, charges and expenses of mutual funds before investing. The prospectuses contain this and other information about mutual funds. The prospectuses are available from our office and should be read carefully before investing.***
- Investing in small-cap stocks generally involves greater risks and, therefore, may not be appropriate for every investor.
- International investing involves special risks, including currency fluctuations, different financial accounting standards, and possible political and economic volatility.
- Investing in emerging markets can be riskier than investing in well-established foreign markets.
- Asset allocation and diversification do not ensure a profit or guarantee against a loss.
- There is an inverse relationship between interest rate movements and bond prices. Generally, when interest rates rise, bond prices fall and when interest rates fall, bond prices generally rise.
- Holding stocks for the long-term does not insure a profitable outcome. Investing in stocks always involves risk, including the possibility of losing one's entire investment.

*Continued on next slide*

---

## DISCLOSURES (CONTINUED)

---

- U.S. government bonds and Treasury bills are guaranteed by the U.S. government and, if held to maturity, offer a fixed rate of return and guaranteed principal value. U.S. government bonds are issued and guaranteed as to the timely payment of principal and interest by the federal government. Treasury bills are certificates reflecting short-term (less than one year) obligations of the U.S. government.
- Companies engaged in the technology sector are subject to fierce competition and their products and services may be subject to rapid obsolescence.
- Declines in the value of real estate, economic conditions, property taxes, tax laws and interest rates all present potential risks to real estate investments.