BLACKROCK®

Perspectives on Risk

Critical Conversations on Risk Management

Risk depends on perspective

Risk depends on perspective

The perspectives that matter to you

You

Your Financial Advisor

Your Investment Manager

“Risk is not being able to retire.”

vs.

“Risk is the standard deviation of a portfolio.”

vs.

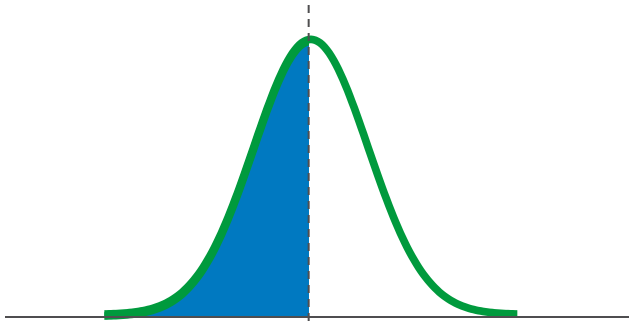
“Risk is relative performance versus peers.”

Articulating your view of risk

Do you think of risk as:

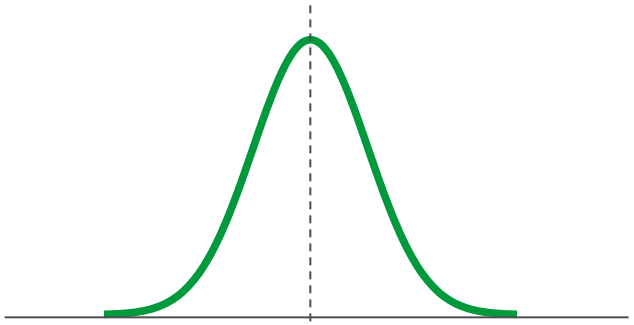
- Crossing a certain asset level?

- Probability of loss?
  (e.g., downside deviation)



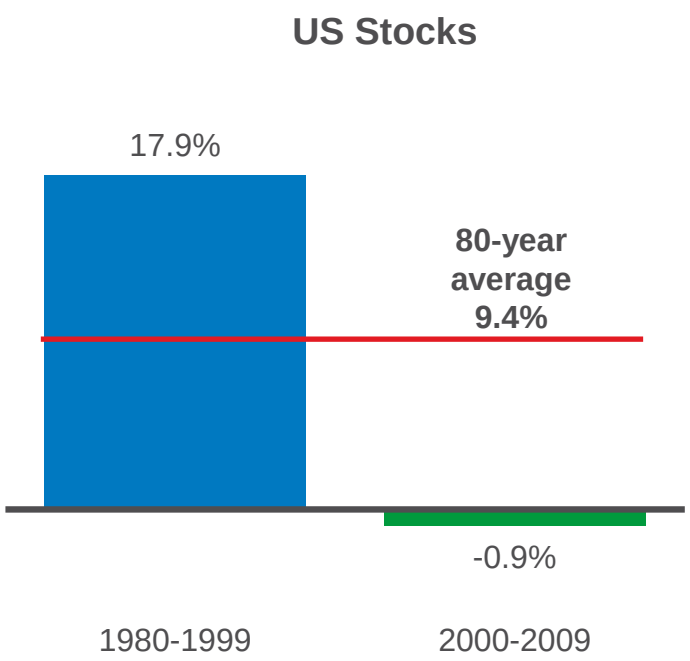
- Negative impact to their goals?

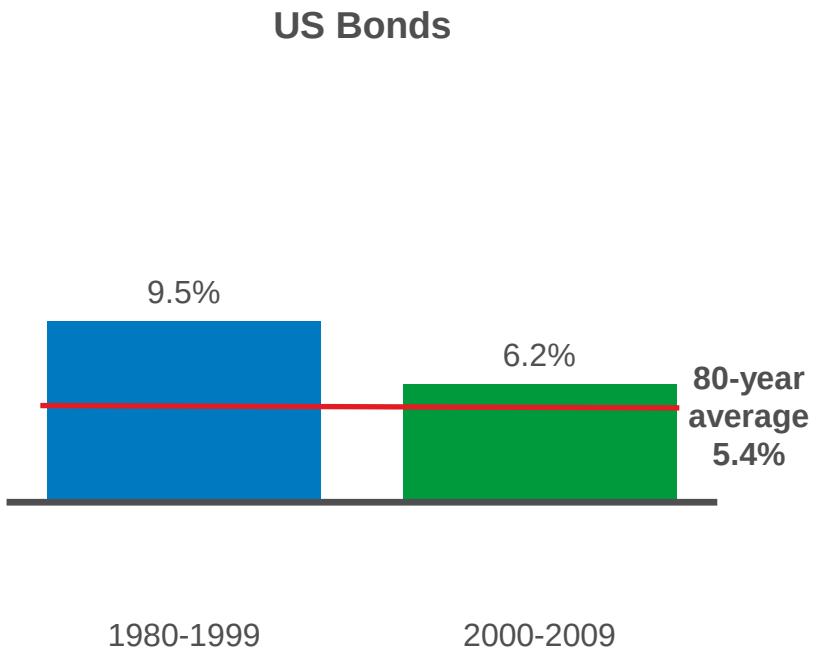
- Volatility? (e.g., standard deviation



Lower returns have made risk important again

Average Annual Returns by Decade





Source: Morningstar, Inc. as of 12/31/13. **US Stocks** represented by S&P 500 Index. **US Bonds** represented by Ibbotson Intermediate Government Bond Index. The value of equity investments are more volatile than other securities. Fixed income investment options are subject to interest rate risk, and their value will decline as interest rates rise. Equity index returns assume reinvestment of all distributions and unlike mutual funds, do not reflect fees or expenses. It is not possible to invest directly in an index.

Agenda

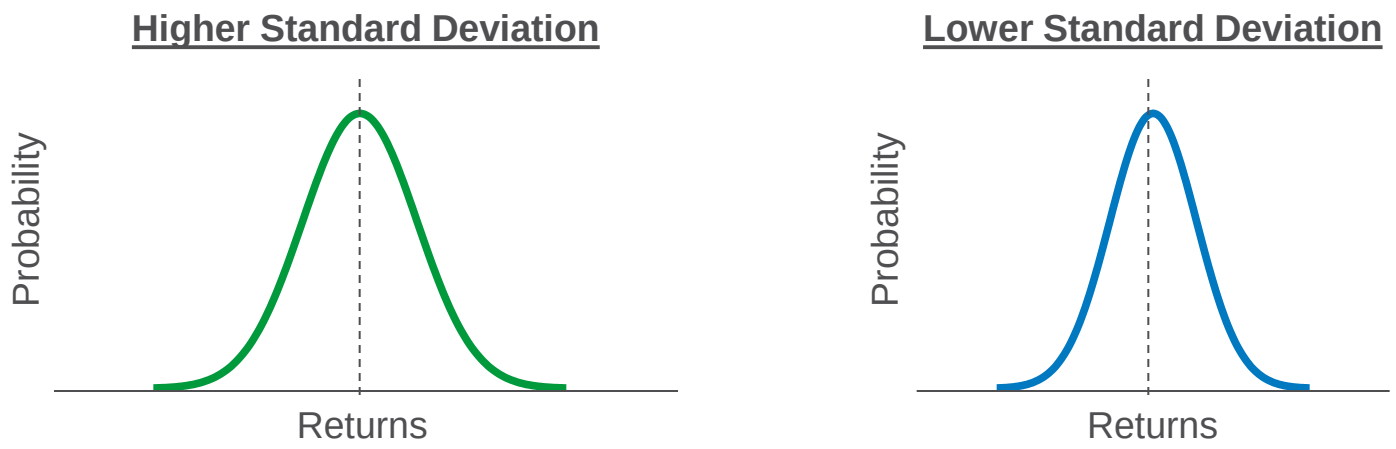
- Traditionally how the financial industry looks at risk
- Risk management beyond traditional measures
- Working with your advisor to create a plan

Traditional risk measures

Traditional risk measures

Industry generally defines risk as volatility

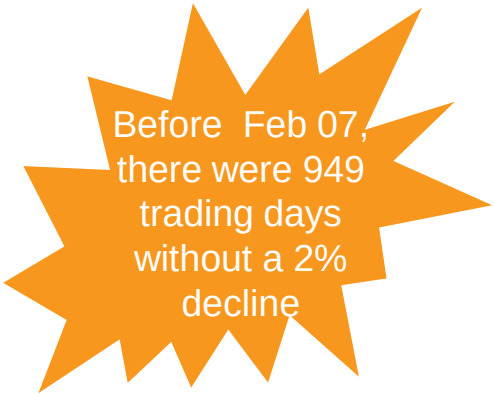
- Standard deviation
  - Measure of the total volatility (risk) of your portfolio
  - How widely a portfolio's returns have varied around the average over time



Source: Bloomberg.

Traditional risk measures

Volatility – A Symptom of Market Turmoil		
	# of days the S&P 500 returned	
	less than -2%	at least +2%
2011	21	14
2010	10	12
2009	28	27
2008	41	31
2007	11	6
2006	0	2
2005	0	0
2004	0	0



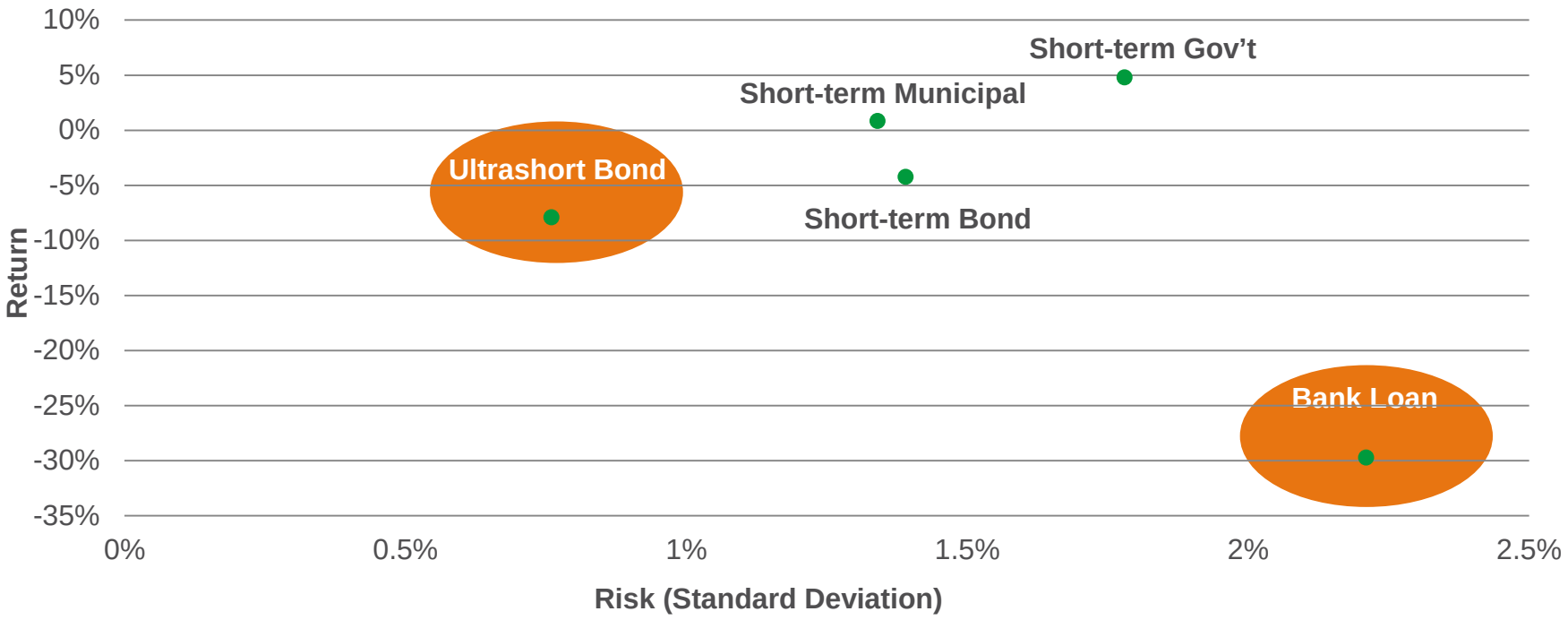
Source: Bloomberg, Yahoo Finance, Inc. as Dec 30, 2011. *949 days represents from Feb 2003 - 2007. Performance is historical and does not guarantee future results.

Traditional risk measures

Measure risk as standard deviation (volatility)- optimize the risk/return

Limitation: Volatility does not capture all the sources of risk!

Least Risky Asset Classes Based on Volatility Heading into 2008



Source: Morningstar. Past performance is no guarantee of future results. Index performance is shown for illustrative purposes only. It is not possible to invest directly in an index. Asset classes are represented by the corresponding Morningstar categories.

Traditional risk measures

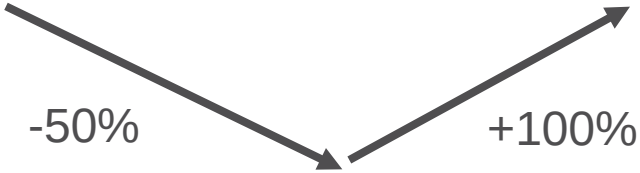
Limiting losses is key to financial success

- Downside Risk
  - Variability of returns that fall below the average expected return
- Downside Capture
  - Average return of a portfolio manager during negative index quarters divided by average return of benchmark during negative quarters

Traditional risk measures

Investment loss	Return needed to breakeven
-1%	1.01%
-5%	5.3%
-10%	11%
-20%	25%
-40%	67%
-50%	100%
-60%	150%
-70%	233%
-90%	900%

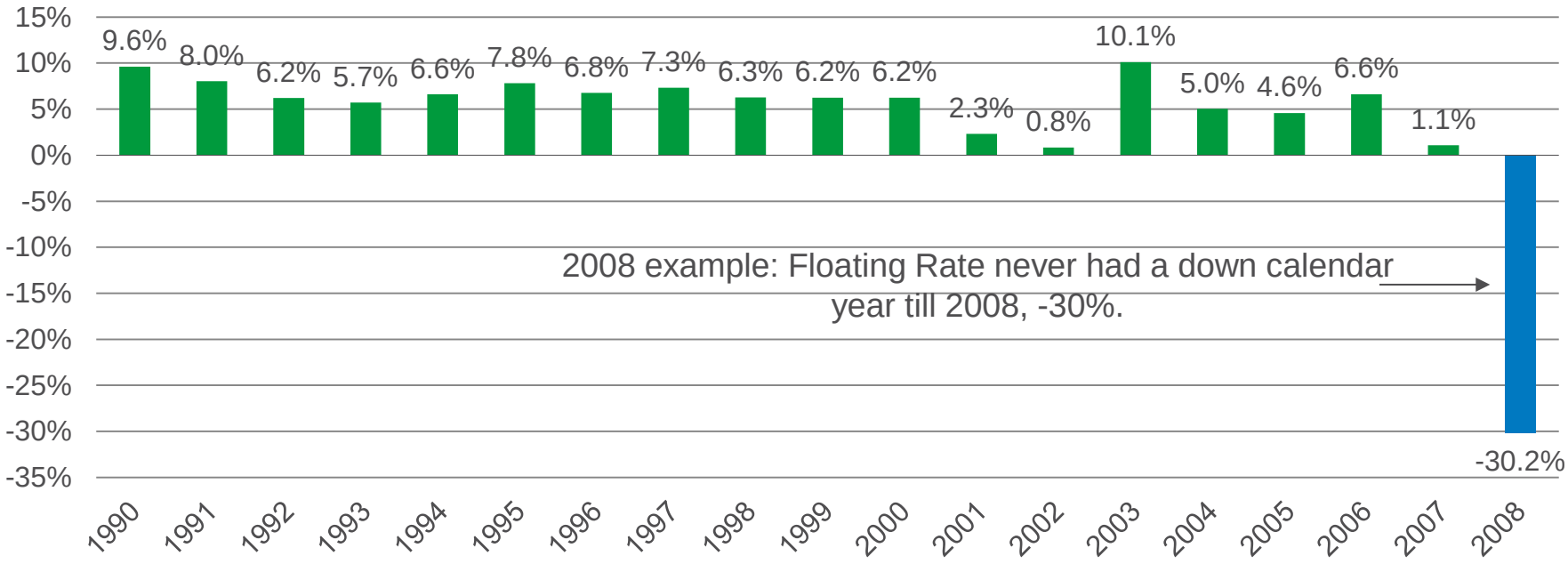
Breaking Even



Traditional risk measures

Downside risk's limitation: We only know the downside (tail risk) that has been previously experienced

Bank Loan Category Annual Returns (1990-2008)



Source: Morningstar. Results shown are for the Morningstar Bank Loan Category. Past performance is no guarantee of future results.

Risk management beyond traditional measures

Risk beyond traditional measures

Credit Analysis

Diversifying by Sources of Risk

Portfolio Stress Testing – understanding risk sources

Hypothetical Trading

High correlations can signal potential risk

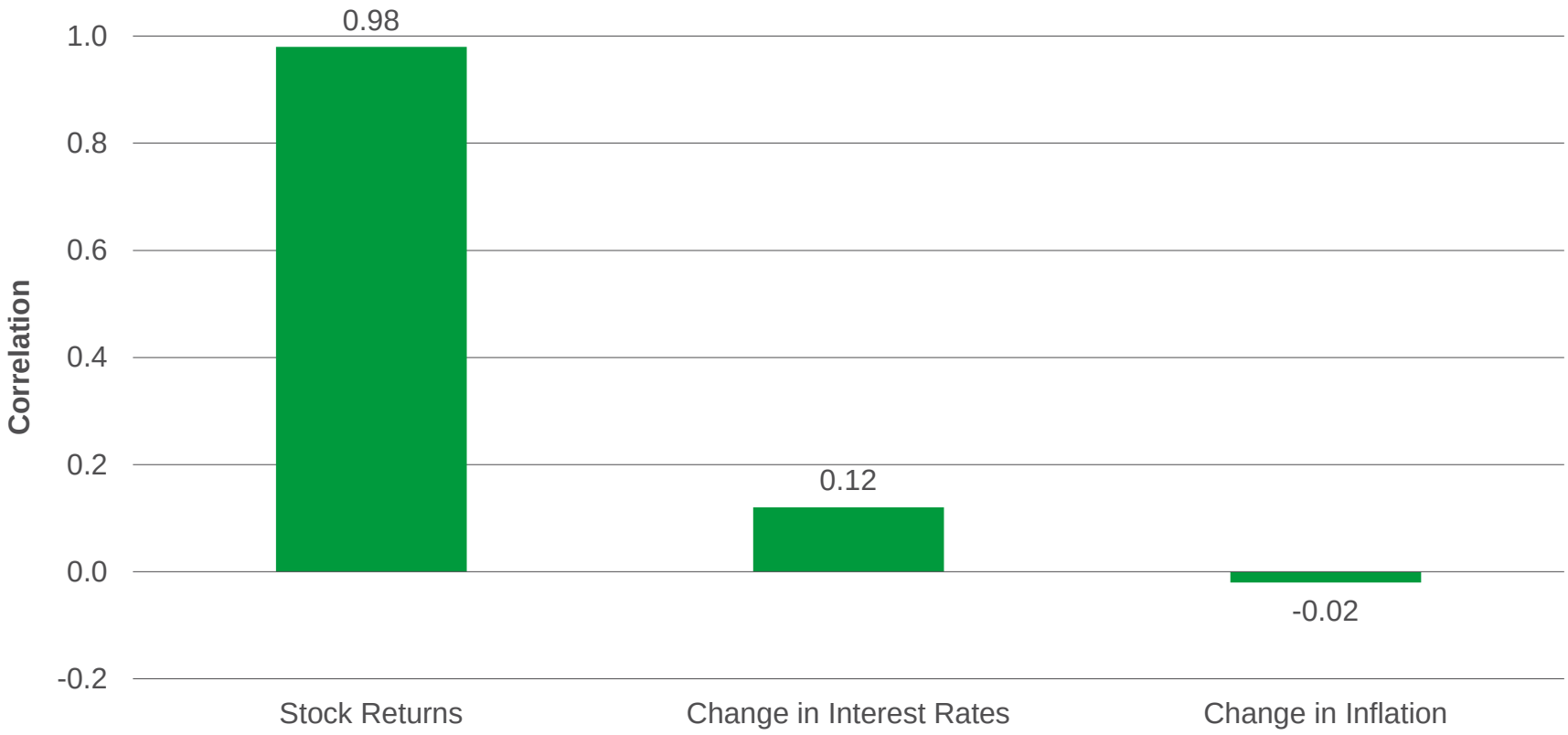
Correlation

- Measure of strength of the linear return relationship between two assets and their movement
- Can be any value between +1 and -1

	Fund 1	Fund 2	Fund 3	Fund 4	Fund 5	Fund 6	Fund 7
Fund 1	1.00						
Fund 2	0.90	1.00					
Fund 3	0.80	0.93	1.00				
Fund 4	0.84	0.80	0.75	1.00			
Fund 5	0.75	0.77	0.72	0.83	1.00		
Fund 6	0.22	0.21	0.16	0.27	0.22	1.00	
Fund 7	0.60	0.63	0.61	0.63	0.63	0.49	1.00

Traditional diversification contains mostly equity exposure

Correlation of Traditional 60/40 Portfolio to Risk Sources Over the Last 15 Years (1999-2013)



Sources: BlackRock; Bloomberg. Traditional 60/40 portfolio composed of 60% S&P 500 Index and 40% Barclays Aggregate Index, rebalanced annually. Stock returns are represented by the S&P 500 Index. Change in interest rates represented by the monthly change in the 10-Year Treasury Yield. Change in inflation is represented by the Consumer Product Index. Past performance does not guarantee or indicate future results. It is not possible to invest directly in an index.

Understanding risk sources – portfolio level

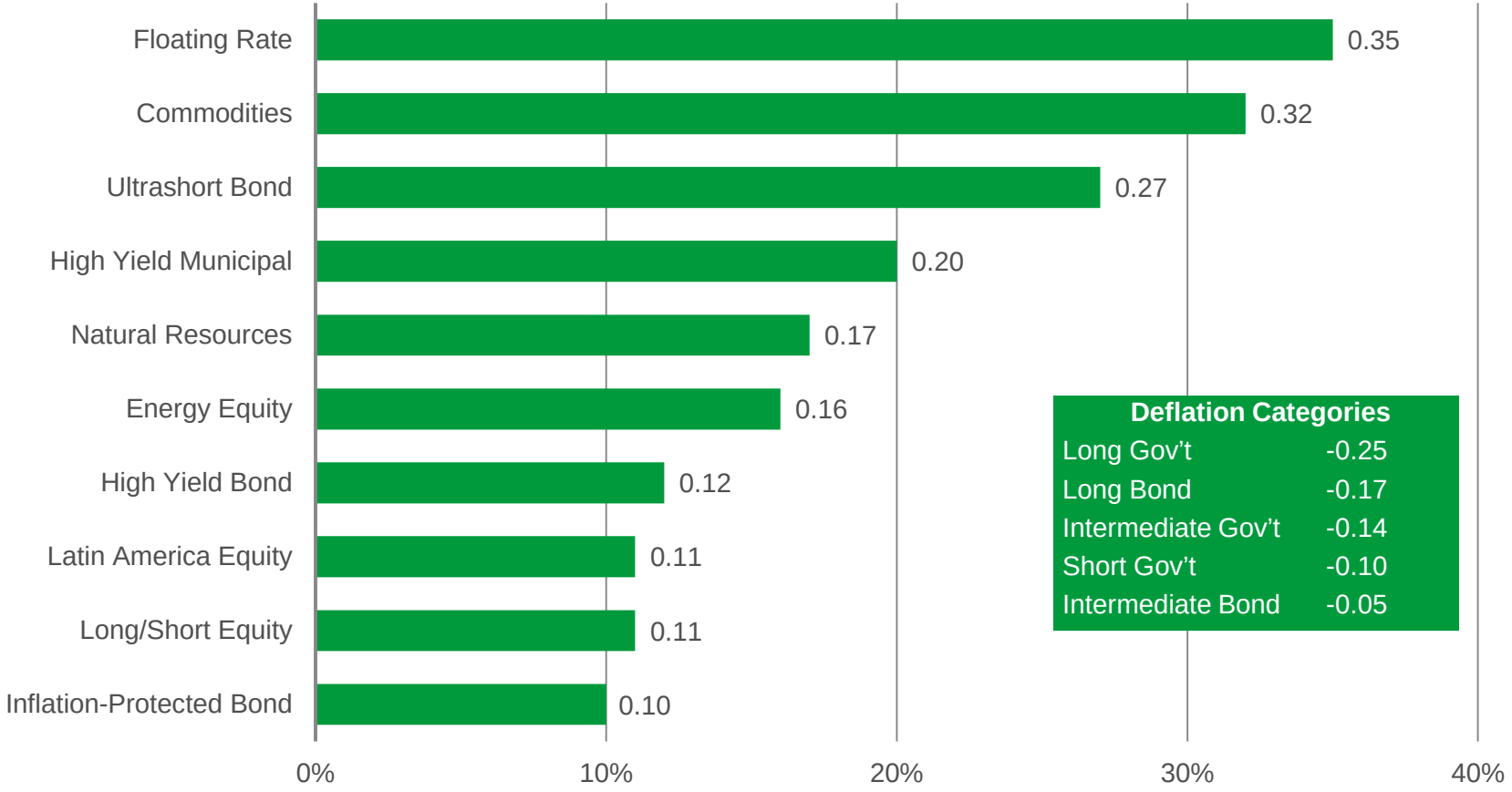
More risks need to be considered

- Inflation Risk
- Interest Rate Risk
- Credit/market Risk
- Liquidity Risk
- Currency Risk
- Political Risk

Portfolios need to be diversified by risk source!

Understanding risk sources – Inflation

15-Year Correlation with Inflation (Top 10, all Morningstar categories)



Source: Morningstar, as of 12/31/12. Past performance is historical and does not guarantee future results. Asset class representation are that of Morningstar. Inflation is represented by the US Bureau of Labor Statistics, CPI All Urban. Correlation over other time periods might not be as favorable.

Portfolio Stress Testing

What happens if the price of oil suddenly rises ~60%?

Int'l Oil Co.	**+69.5%**
Housing Developer	**+14.8%**
Movie Rental Service	**+11.9%**
Online Auction Service	**+9.7%**
Online Travel Agency	**+8.0%**
Telecom Co.	**-13.6%**
Int'l Beverage Co.	**-16.4%**
Chain Restaurant	**-23.3%**
Airline	**-26.2%**
Discount Department Store	**-41.0%**

Analyzing the impact of macro events

What happens if the price of gold suddenly falls ~40%?

Health Insurance Co.	+6.4%
Search Engine	-11.6%
Auto Parts Distributor	+5.5%
Toy Co.	+5.2%
Hotel Chain	0.0%
Oil Co.	-36.4%
Commercial Bank	+0.2%
Online Retailer	+4.7%
Mining Co.	-38.2%
Discount Department Store	+11.2%

Portfolio Stress Testing

Stress testing allows deeper understanding of portfolio risks

- Uncovers full exposure to changing variable
  - May highlight unexpected relationships
  - Allows investment manager to change positioning to alter exposure
  - May indicate need to hedge against certain outcomes

- Allows understanding of implications over a range of variables
  - Able to test multiple scenarios
  - Allows investment manager to see changes over time

Working with your advisor to create a plan

Managing risk

Risk Management IS NOT avoiding risk.

Risk Management IS understanding risk and planning for it.

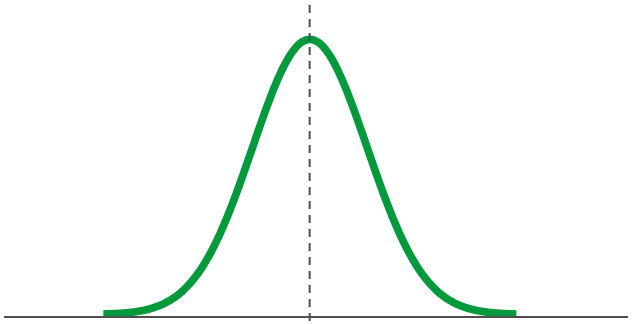
"The first step in the risk management process is to acknowledge the reality of risk. Denial is a common tactic that substitutes deliberate ignorance for thoughtful planning."

– Charles Tremper (Risk Management Author)

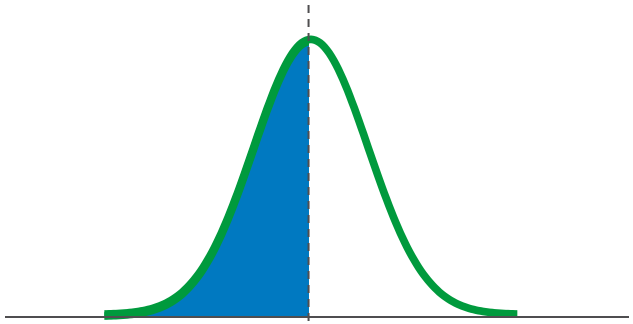
Understanding your advisor's view of risk

Do they think of risk as:

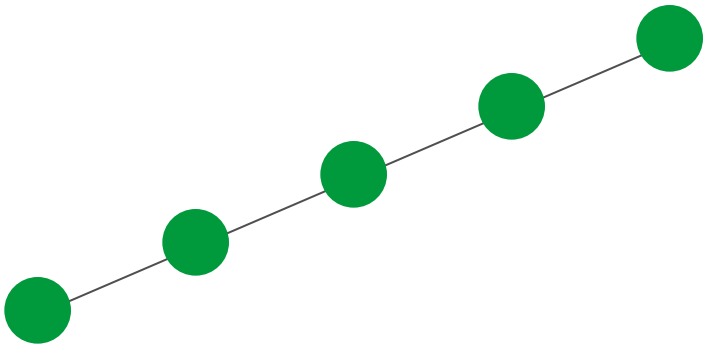
- Volatility? (e.g., standard deviation)



- Probability of loss?
  (e.g., downside deviation)



- An appropriate portfolio?



- Beta?
- Batting average?
- Tracking error?
- Downside capture?

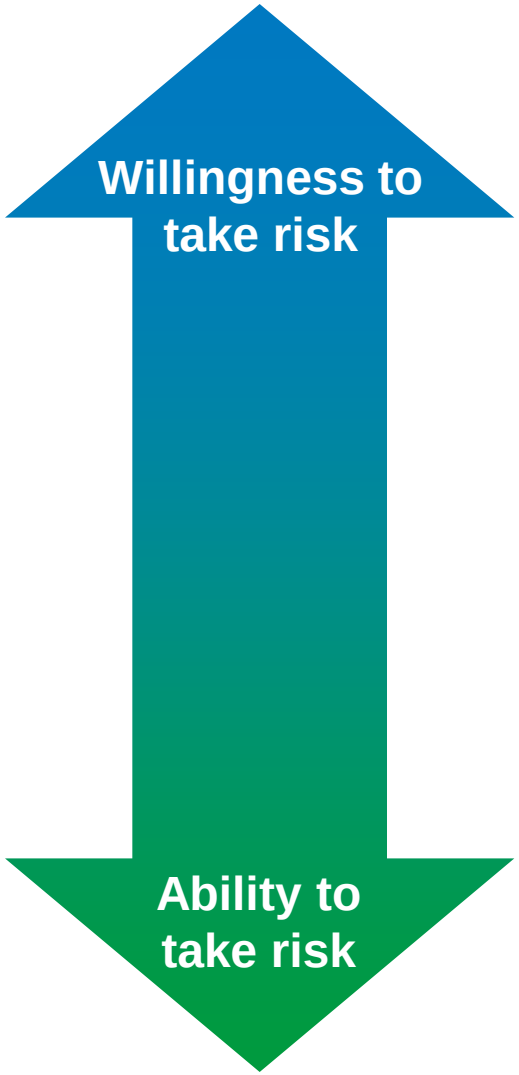
Is risk tolerance enough?

Risk Tolerance – the risk normally chosen by you

Perceived Risk – your perception of the risk involved

Required Risk – the risk associated with the return necessary to achieve your goals

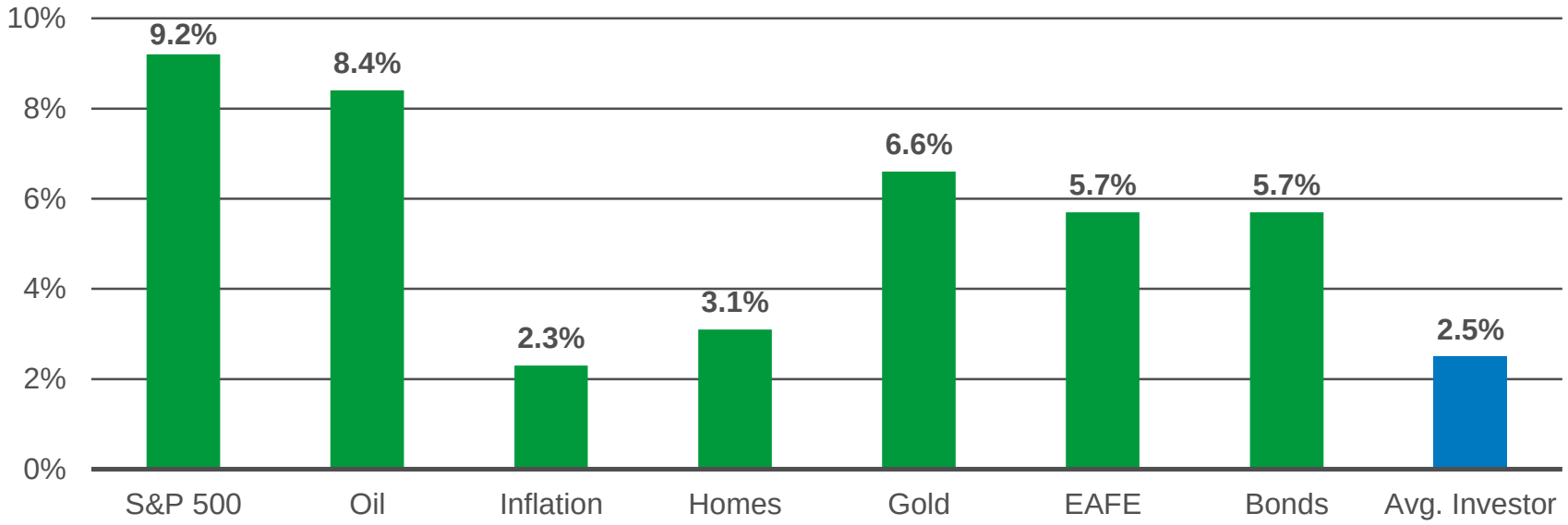
Risk Capacity – the risk you can afford to take



Perceived risk is key element to understand

- **Perceived risk drives investor behavior**
- **Risk perceived by advisors may differ from risk you perceive**

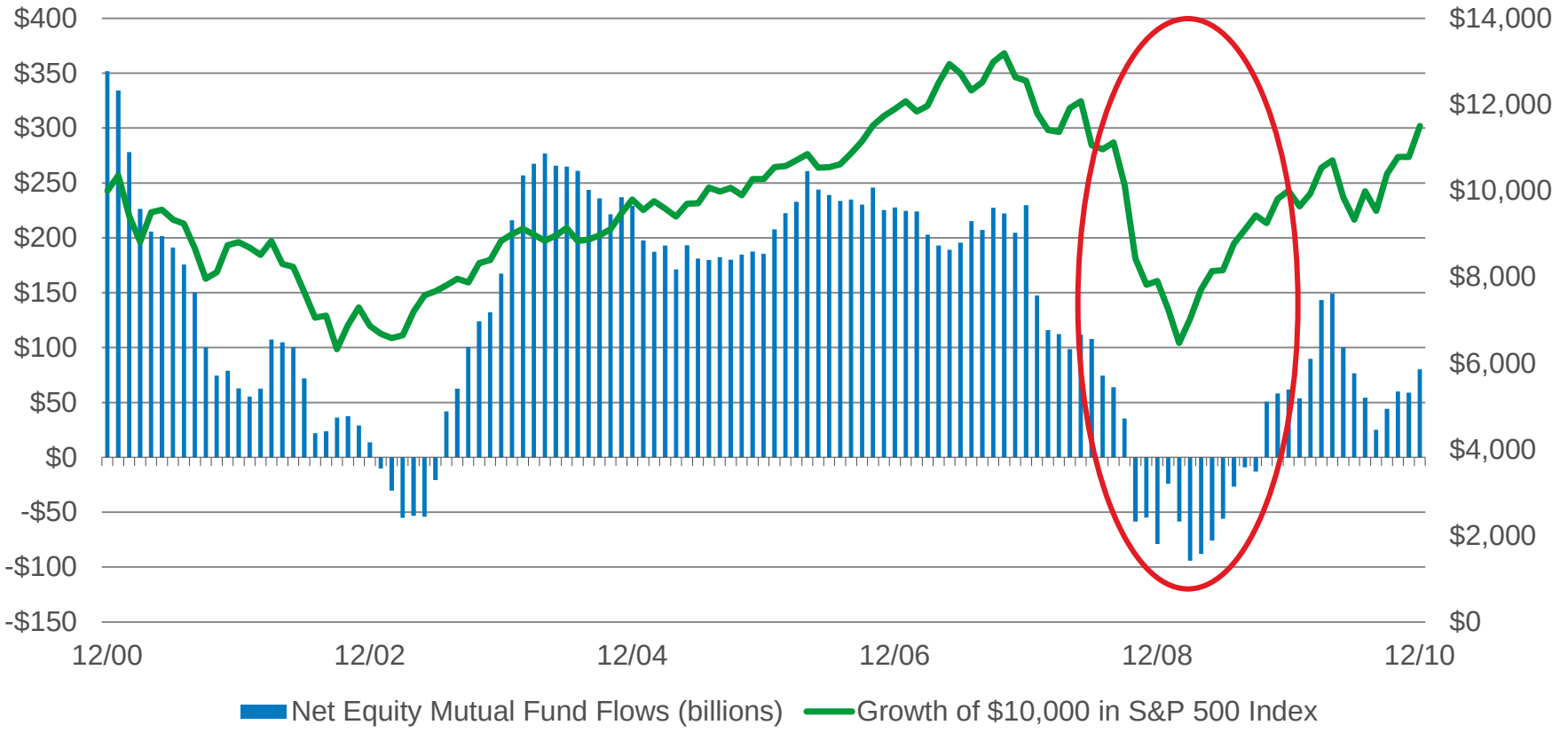
20-Year Annualized Returns by Asset Class



Sources: BlackRock; Bloomberg; Informa Investment Solutions; Dalbar. It is not possible to directly invest in an index. Indexes used are as follows: Oil: NYMEX Light Sweet Crude Future Index. Contract size is 1,000 barrels with a contract price quoted in US Dollars and Cents per barrel. Delivery dates take place every month of the year. Gold: change in the spot price of gold in USD per ounce. Homes: Existing One Family Home Sales Median Price Index. Stocks: S&P 500 Index, an unmanaged index that consists of the common stocks of 500 large-capitalization companies, within various industrial sectors, most of which are listed on the New York Stock Exchange. Bonds: Barclays US Aggregate Bond Index, an unmanaged market-weighted index that consists of investment-grade corporate bonds (rated BBB or better), mortgages and US Treasury and government agency issues with at least 1 year to maturity. EAFE: MSCI EAFE Index, a broad-based measure of international stock performance. Inflation: Consumer Price Index. Average Investor is represented by Dalbar's average asset allocation investor return, which utilizes the net of aggregate mutual fund sales, redemptions and exchanges each month as a measure of investor behavior. Returns are annualized (and total return where applicable) and represent the 20-year period ending 12/31/13 to match Dalbar's most recent analysis.

Scared investors flee the market

S&P 500 Index Performance vs. 12-Month Equity Mutual Fund Flows



Sources: Informa Investment Solutions; DB US Equity Strategy; Investment Company Institute (US mutual funds and ETFs). Past performance does not guarantee or indicate future results. It is not possible to invest directly in an index.

Risk management should be incorporated into all financial plans

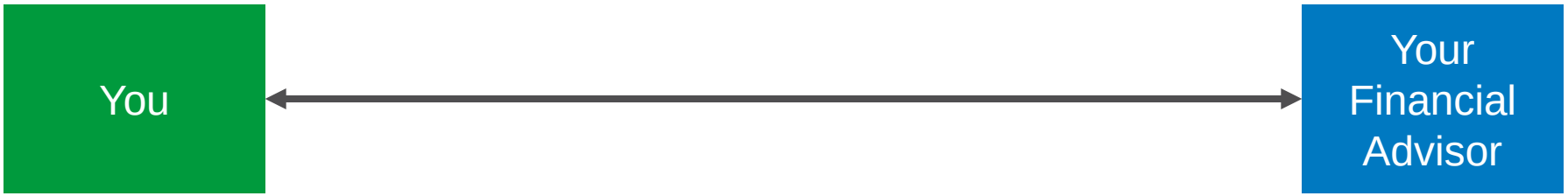
Putting a risk management plan in place

Two key objectives of successful risk management plans

Defend Against Disaster	Manage Ongoing Risks

Incorporate risk sources you or your advisor are concerned about

Reconciling views on risk



- Come to an understanding on how you and your advisor view risk
- Discuss what risks are most important and how to address
- Incorporate risk management into overall financial plan

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Interactive Brokers for Advisors

John Carroll Seeberg
jseeberg@interactivebrokers.com
203-618-5991 direct phone number

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- **Manage accounts through Rebalance and Portfolio Models**
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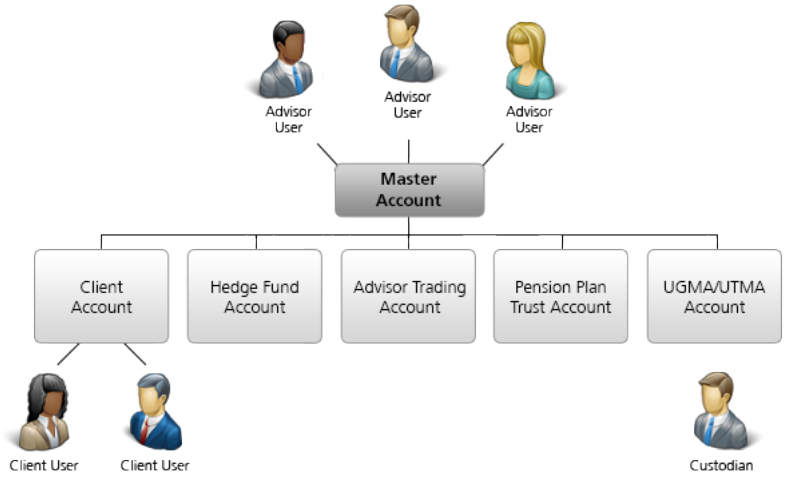
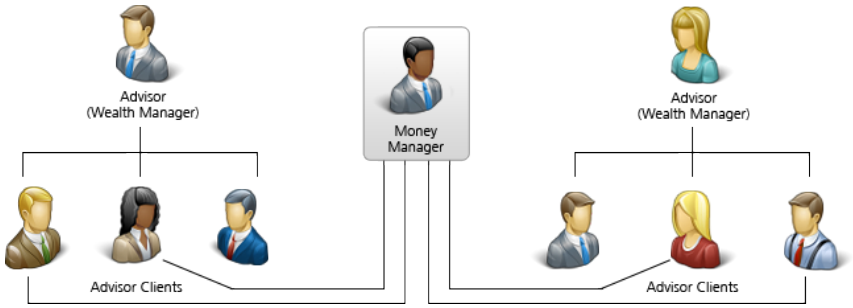
- **Website Dev and Compliance tasks**

IB Money Manager

- **Manage clients from other RIAs**
- **Allocate and Rebalance across multiple RIAs**
- **Market through IB Money Manager Marketplace**





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