ADVISOR 2019 SYMPOSIUM

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A Multi-Signal Approach to Asset Allocation

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Investors Have Competing Objectives?

• Different investors have different objectives

At any given time a single investor has competing objectives

• Investor "top of mind" objectives change over time



Capturing Competing Objectives

Wealth Preservation

How do I make sure my wealth doesn't meaningfully decrease?

Lower Risk

"Keeping Up with the Joneses"

- How do I make sure my neighbors don't do meaningfully better than I do?
- Variable Risk

Income Desire

- How do I make sure I'm receiving meaningful cash flows from my investments?
- Variable Risk

Aspirations

How do I move to the next highest wealth cohort (e.g., "get rich")

Higher Risk

Tax Efficiency



How a Retired Couple Found Lottery Odds in Their Favor





Constant Asset Allocation Approach

_	STOCKS			FIXED INCOME———			ALTERNATIVES									
	Total	U.S.	Devel- oped	Emerging	Total	U.S.	High Grade/ HY	Devel- oped	Emerging	Total	Real Estate	Commodities	Hedge Funds	Private Equity	Other	CASH Total
Atlantic Trust	49.0%	38.0%	9.0%	2.0%	27.0%	27.0%	25/2	0.0%	0.0%	22.0%	1.0%	0.0%	19.0%	2.0%	0.0%	2.0%
BB&T	59.0	27.1	27.1	4.7	36.0	32.4	30.6/1.8	3.6	0.0	5.0	0.0	0.0	5.0	0.0	0.0	0.0
Bernstein GWM	46.0	32.0	11.0	3.0	35.0	35.0	35/0	0.0	0.0	15.0	1.0	2.0	9.0	3.0	0.0	4.0
Bessemer	47.8	27.2	17.6	3.0	19.9	19.5	18.6/.9	0.4	0.0	26.0	6.0	0.0	10.0	10.0	0.0	6.7
BlackRock	55.0	31.0	20.0	4.0	29.0	26.0	26/3	0.0	3.0	16.0	3.0	0.0	7.0	6.0	0.0	0.0
BMO Private Bank	57.0	30.0	21.0	6.0	16.0	16.0	16/0	0.0	0.0	20.0	2.0	2.0	6.0	0.0	10.0	7.0
BNY Mellon	46.1	29.1	13.5	3.5	26.3	26.3	24.3/2	0.0	0.0	27.6	1.5	1.2	11.0	10.0	3.9	0.0
Boston PWM	52.5	29.0	19.0	4.5	30.0	28.0	0	2.0	0.0	15.0	0.0*	0.0*	8.0	7.0*	0.0	2.5
Brown Advisory	47.0	27.0	10.0	10.0	20.0	20.0	14/6	0.0	0.0	28.0	5.0	2.0	13.0	6.0	2.0	5.0
Brown Brothers Harriman	56.0	40.0	9.0	7.0	24.0	24.0	24/0	0.0	0.0	17.0	4.0	0.0	3.0	6.0	4.0	3.0
Capital Group	50.0	22.0	21.0	7.0	35.0	35.0	30/5	0.0	0.0	15.0	0.0	0.0	10.0	5.0	0.0	0.0
Citi Private Bank	40.1	18.7	16.6	4.9	27.9	14.1	12.9/1.2	13.2	0.6	28.0	5.0	0.0	18.0	5.0	0.0	4.0
City National Dochdalo	E4.0	46.0	2.0	E 0	42.0	20 N	26/12	1.0	2.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0



Capturing Competing Objectives

Wealth Preservation

- How do I make sure my wealth doesn't meaningfully decrease?
- Lower Risk
- Inflationary Assets
- Primary Real Estate
- TIPS

"Keeping Up with the Joneses"

- How do I make sure my neighbors don't do meaningfully better than I do?
- Variable Risk
- Benchmark (e.g., 60/40)

Income Desire

- How do I make sure I'm receiving meaningful cash flows from my investments?
- Variable Risk
- Strategic Long Term Income-Focused Strategy

Aspirations

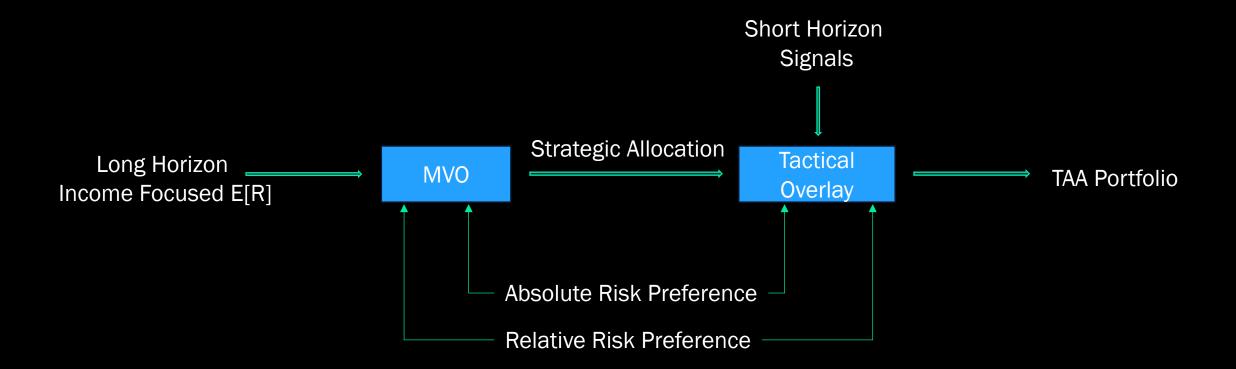
 How do I move to the next highest wealth cohort (e.g., "get rich")

- Higher Risk
- Tactical Signals
- Crash Potential (carry, momentum)

Mixing strategies, not assets, is the way to address competing objectives



Utilize a Common Recipe





Broadly Diversified Set of Assets

Asset Class	Representative Index
Short Bonds/Cash	Barclays US Treasury 1-3 YR
Core Bonds	Barclays US Aggregate
Long Bonds	Barclays US Treasury Long
Global Bonds	Barclays Global Aggregate Ex-US
Municipals	Bloomberg Barclays Municipal Bond Index
Credit	Barclays US Interim Credit
HY Bonds	Barclays Corporate High Yield
EM Local	JP Morgan ELMI+ Composite
TIPS	Barclays US Treasury US TIPS
Commodities	Bloomberg Commodity Index
REITS	FTSE NAREIT All Equity REIT
US Large Stocks	S&P 500
US Small Stocks	Russell 2000
Dev-X US Stocks	MSCI EAFE
EM Stocks	MSCI Emerging Markets



Portfolio Strategies/Sleeves

Wealth Preservation

"Keeping Up with the Joneses"

Income Desire

Aspirations

Portfolio	Period	Description
Income (strategic)	Strategic	 Portfolio created to provide structural diversification and maximize income in a risk-efficient manner
		Utilizes market observable and historical trends for current and future growth in yields
		Without any tactical opinions, this is the portfolio to buy



Bonds: Future Returns Follow Starting Yields







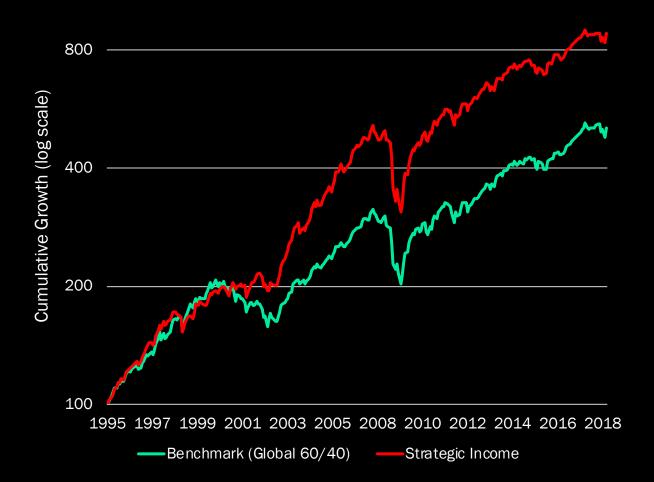
Equities: Future Returns Follow Starting Earnings Yields







Strategic Income Portfolio



	Average Annual Return	Volatility
Strategic Income	6.6%	10.0%
Benchmark	4.8%	9.1%



Tactical Portfolio Strategies/Sleeves

Wealth Preservation

"Keeping Up with Joneses"

Income Desire

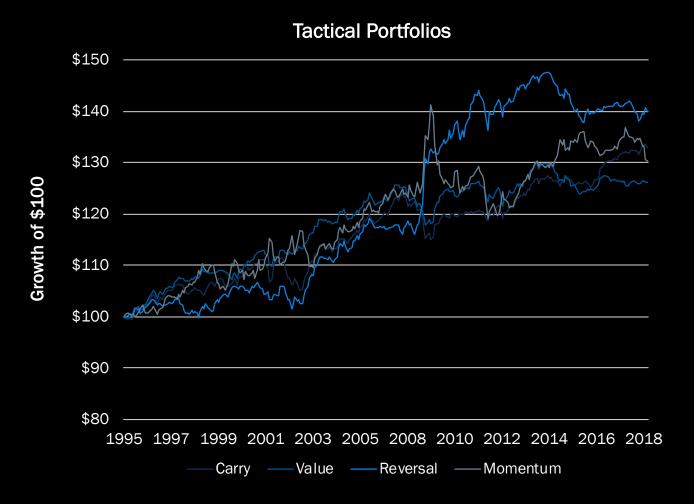
Aspirations

Portfolio	Description				
Carry	 Assume prices are constant over time Overweight = Higher yields, Underweight = Lower yields 				
Value	 Assume cheap assets (based on fundamentals) will revert Overweight = Cheaper assets, Underweight = More expensive 				
Reversal	 Assume cheap asserts (based on return) will revert Overweight = Cheaper assets, Underweight = More expensive 				
Momentum	 Assume trends in returns continue Overweight = Better performing assets, Underweight = Worse performers 				

Signals to Build Portfolios Based on Market Information – No Forecasting!



Tactical Portfolios' Return



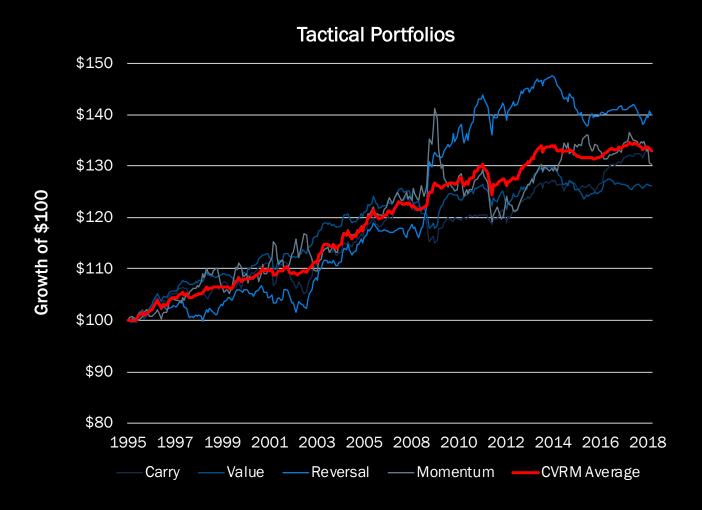


Tactical Portfolios' Return

	Average Annual Return	Volatility	Sharpe Ratio	Turnover
Carry	1.2%	2.1%	0.6	28.1%
Value	1.0%	1.9%	0.5	27.7%
Reversal	1.4%	2.7%	0.5	22.8%
Momentum	1.2%	3.6%	0.3	70.4%



Aggregate Tactical Portfolios' Return



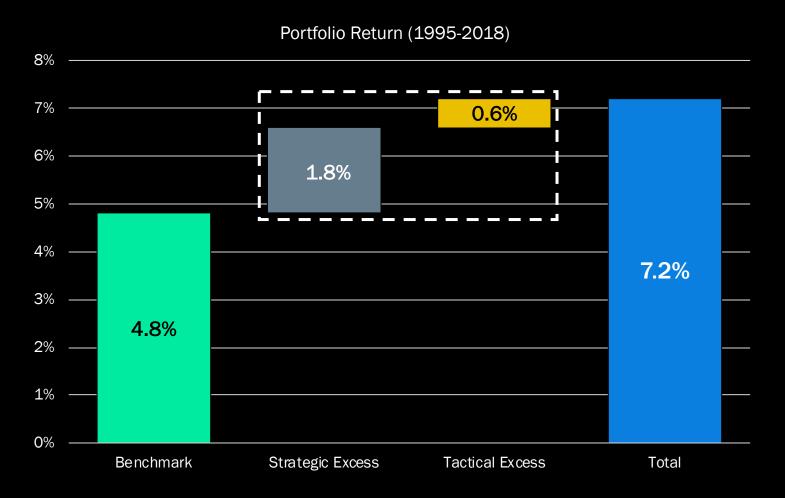


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	Average Annual Return	Volatility	Sharpe Ratio	Turnover
Carry	1.2%	2.1%	0.6	28.1%
Value	1.0%	1.9%	0.5	27.7%
Reversal	1.4%	2.7%	0.5	22.8%
Momentum	1.2%	3.6%	0.3	70.4%
Average	1.2%	1.5%	0.8	25.7%



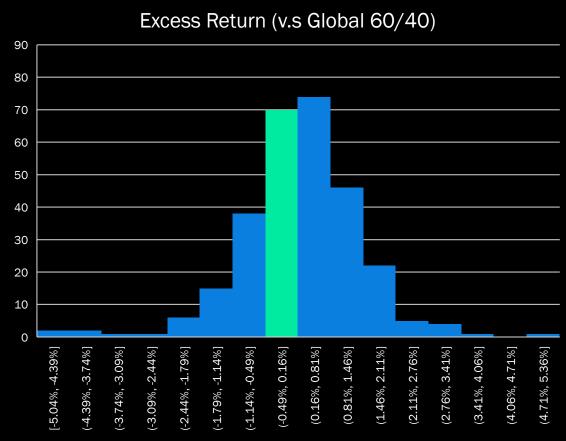
Putting It All Together





Approach Is Not Without Risk







Returns Tie to Objectives

		09/2008–09/2010	12/2009–12/2011
	Total Portfolio Return	19.6%	17.8%
	"Keeping with Joneses" (Benchmark) 14.4%	8.3%	
Evenes Paturn	Income Desire	1.8%	10.7%
Excess Return -	Aspirational	3.4%	-1.2%
	Return of S&P 500	-6.5%	19.8%
Excess Return	"Keeping with Joneses" (Benchmark) Income Desire Aspirational	1.8%	8.3% 10.7% -1.2%



Additional Considerations

- Investible Products for Each Asset Class
 - Liquid, sizeable, and cost efficient
 - Broad holdings
- Transaction Costs
- Potential Tax Efficiencies
 - "Tactical and Tax Aware"¹



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