

# Diversified Investing

*Building a Diversified, Low Correlation Portfolio*

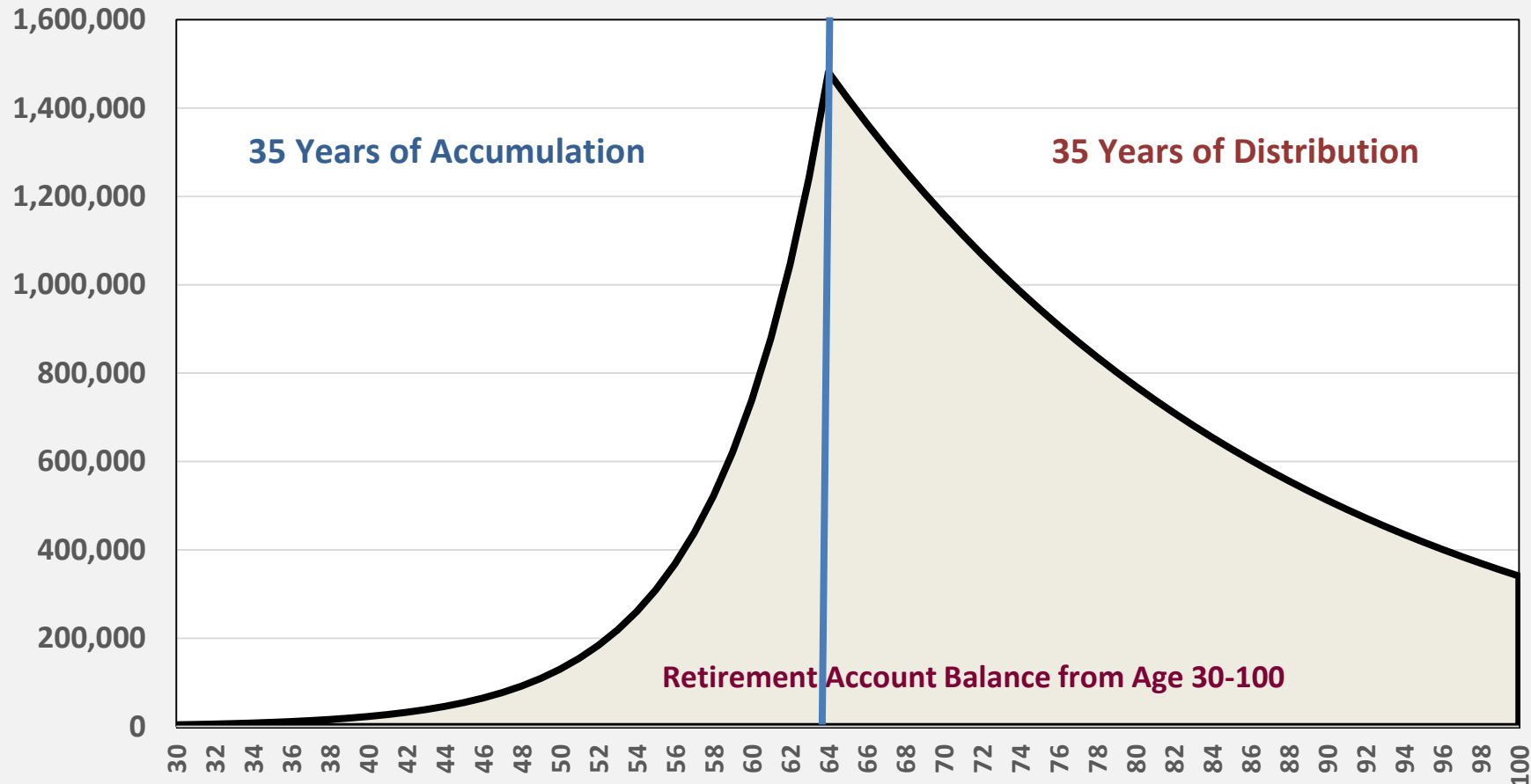
Financial Planning Conference  
Texas A&M University  
November 20, 2015

Craig L. Israelsen, Ph.D.  
*7Twelve*<sup>®</sup> Portfolio  
[www.7TwelvePortfolio.com](http://www.7TwelvePortfolio.com)

Financial Planning Program  
Utah Valley University

# BIG PICTURE

## The General Idea of Investing for Retirement



# In 1970 you started investing:

For 45 years you invested money into...	In 2014 your account balance was... <i>(you saved 10% of your income each year)</i>
Bucket in your room earning 0% interest	<b>\$324,520</b>

\$35,000 starting salary in 1970, 3% annual increase over 45 years

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<b>7-Asset Diversified Portfolio of Stock, Bonds, Cash, Real Estate, Commodities</b>	<b>\$3,460,087</b>

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 **The Key is Saving 10%**

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**← and diversifying**

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# Main Insights

- *Start investing early in career*
- *Set a goal to save 10% of your income each year*
  - *Invest in a diversified portfolio*



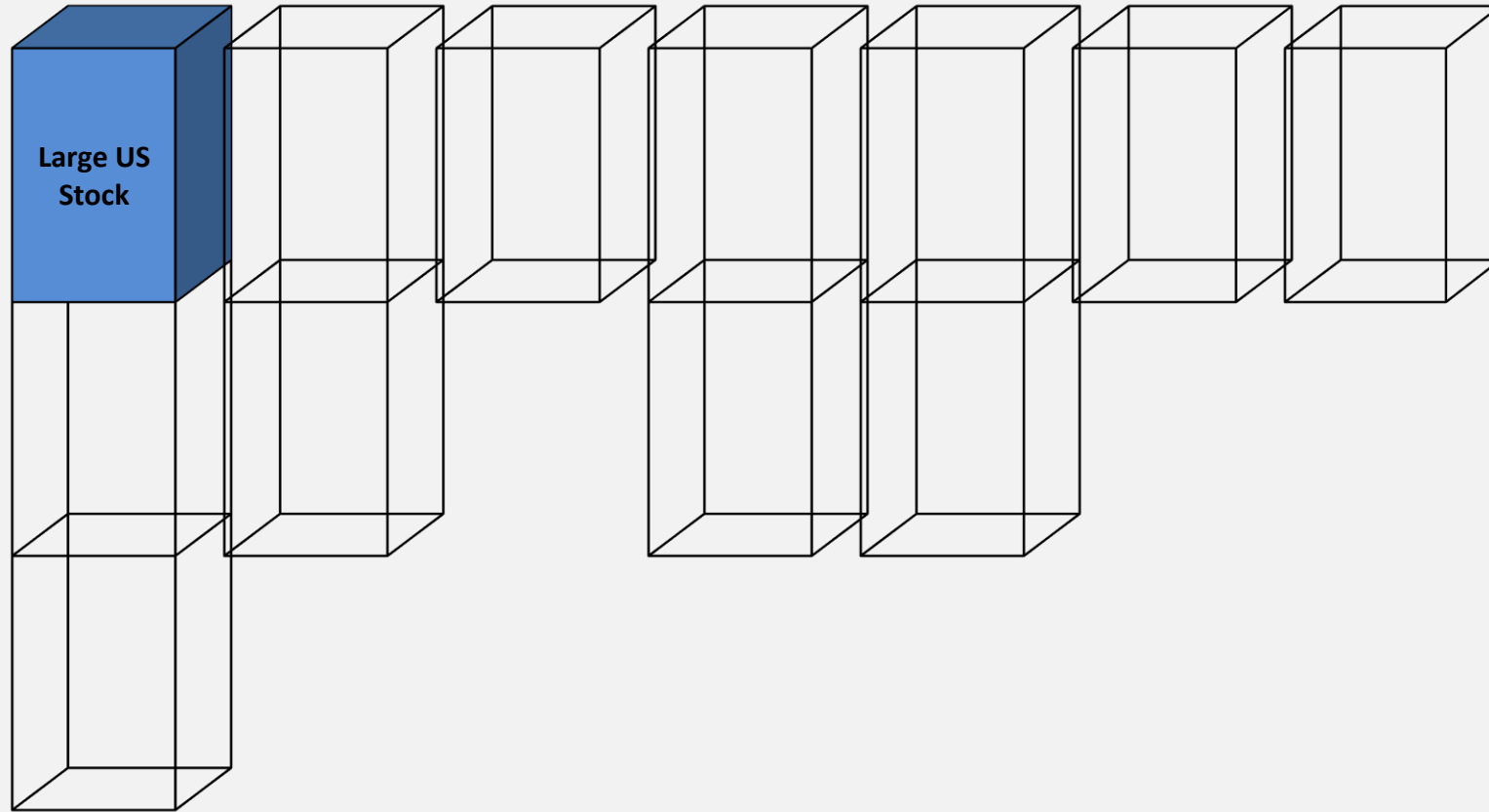
***What's in a  
diversified portfolio?***

Building an investment portfolio is like making **salsa**...we add different ingredients together.



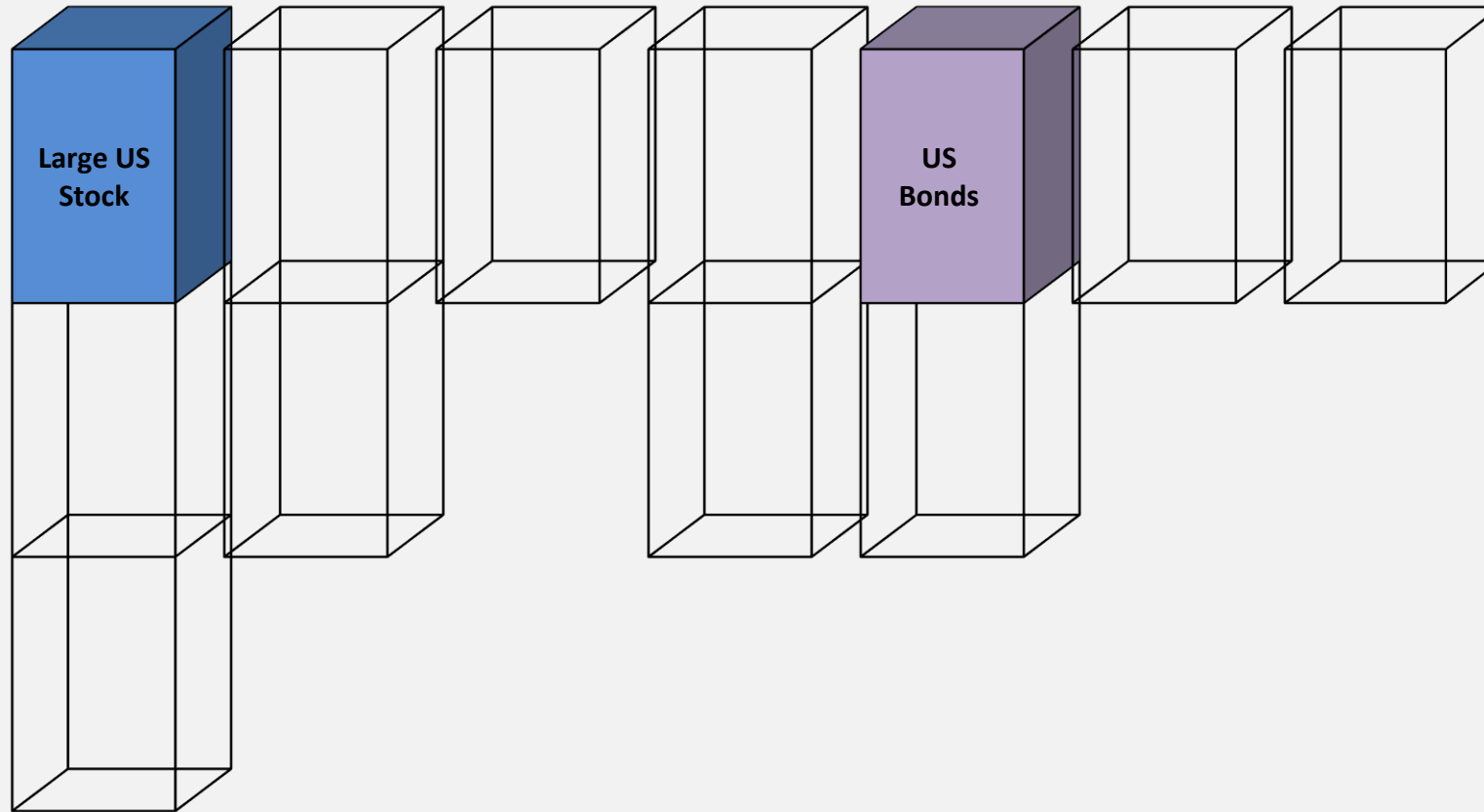
# Minimal Diversification

The S&P 500 Index



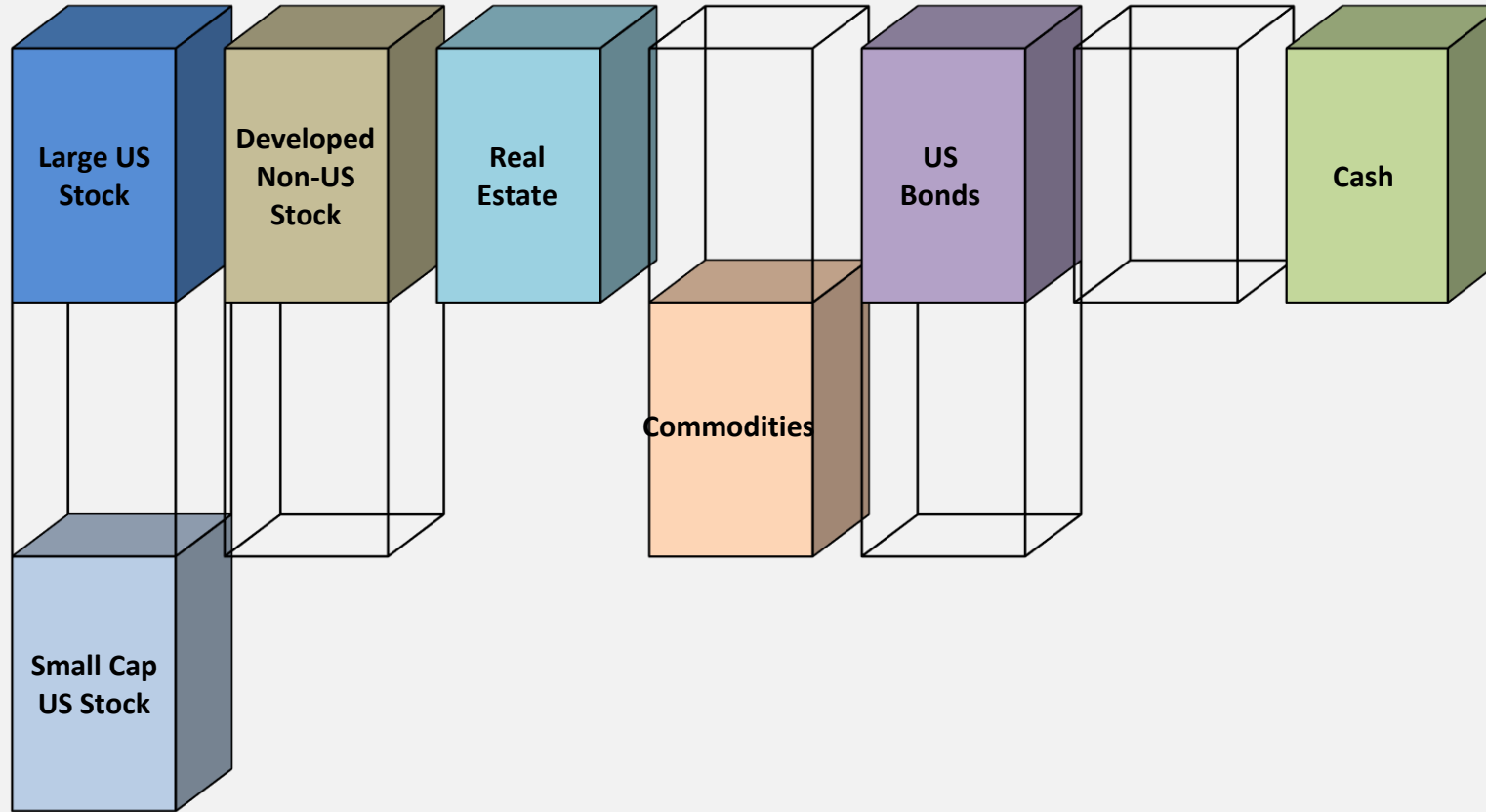
# Two-Asset Diversification

60/40 Portfolio



# Diversified Portfolio

## 7-Asset Portfolio



# **Why invest in a diversified, multi-asset portfolio?**

# **Why invest in a diversified, multi-asset portfolio?**

**To achieve equity-like returns  
while cutting volatility & downside in half.**

**45 Year History**

**1970 - 2014**



# Diversified Multi-Asset Portfolio...Salsa

1970-2014	Large US Stock	Small US Stock	Non-US Stock	US Bonds	Cash	Real Estate	Commodities	Equally Weighted 7-Asset Portfolio
45-Year Average Annualized % Return	10.48	11.17	9.02	7.89	5.11	11.68	8.03	10.12

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45-Year Standard Deviation of Annual Returns	17.43	21.87	22.19	6.57	3.45	19.27	24.93	10.18

# Diversified Multi-Asset Portfolio...Salsa

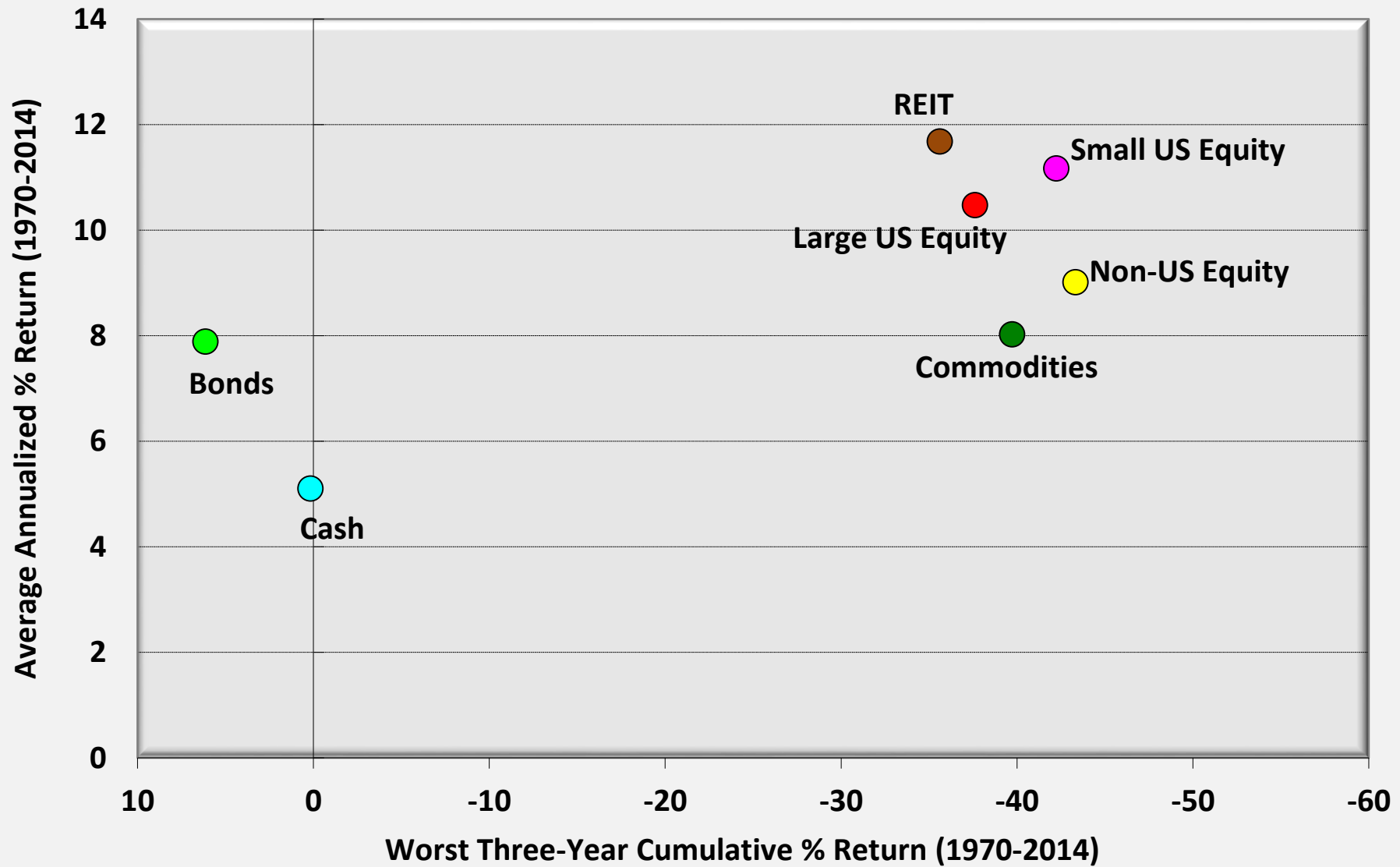
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Number of Years with Negative Returns	9	13	13	3	0	9	13	5
Worst Three-Year Cumulative % Return	(37.61)	(42.24)	(43.32)	6.15	0.17	(35.61)	(39.72)	(13.40)

# Indexes Used in Performance Calculations

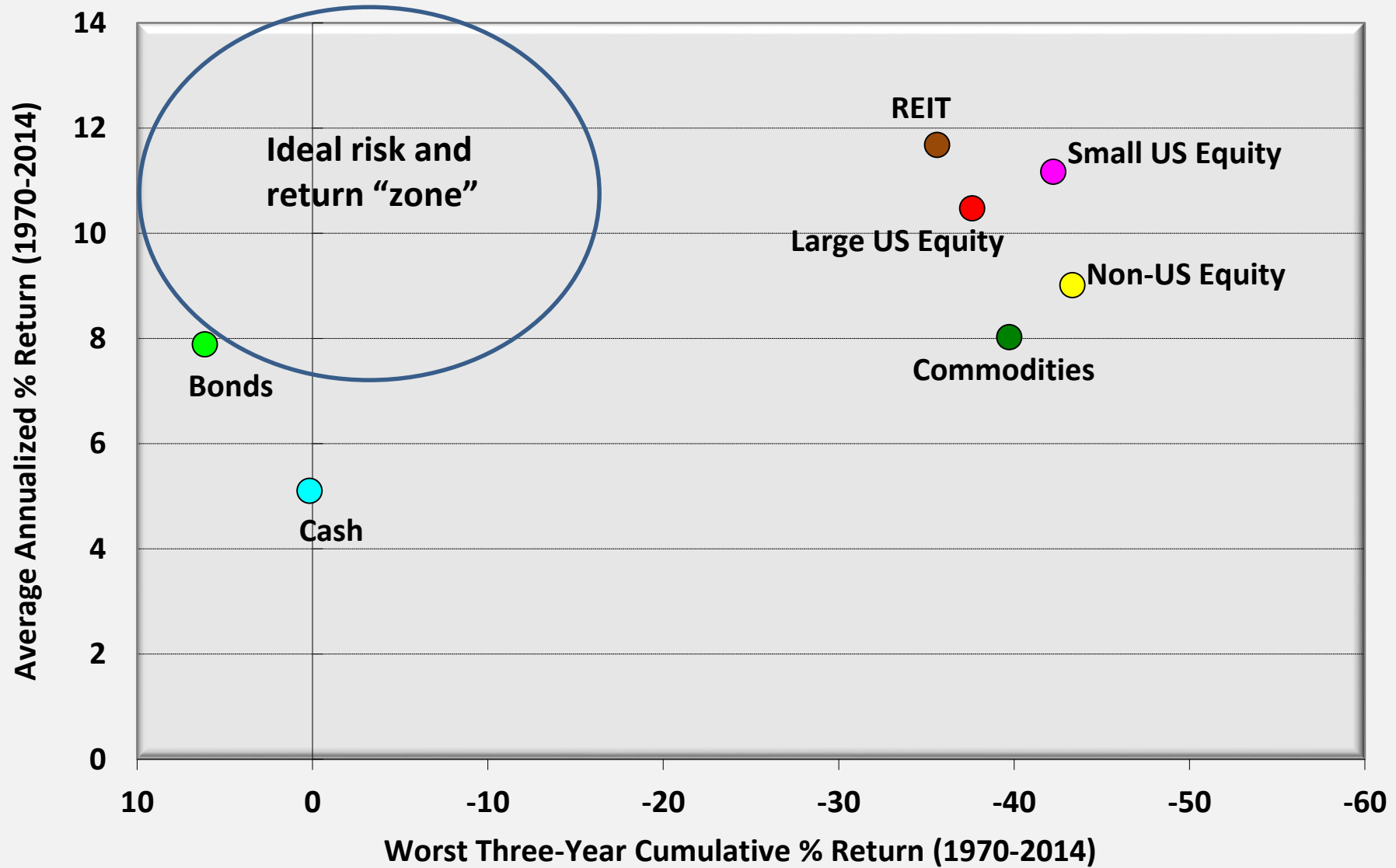
Data Source: Lipper

- **Large-cap US equity** represented by the S&P 500 Index.
- **Small-cap US equity** represented by the Ibbotson Small Companies Index from 1970-1978, and the Russell 2000 Index starting in 1979.
- **Non-US equity** represented by the MSCI EAFE Index.
- **Real estate** represented by the NAREIT Index from 1970-1977 and the Dow Jones US Select REIT Index starting in 1978.
- **Commodities** represented by the Goldman Sachs Commodities Index (GSCI). As of February 6, 2007, the GSCI became the S&P GSCI Commodity Index.
- **U.S. Aggregate Bonds** represented by the Ibbotson Intermediate Term Bond Index from 1970-75 and the Barclays Capital Aggregate Bond index starting in 1976.
- **Cash** represented by 3-month Treasury Bills.

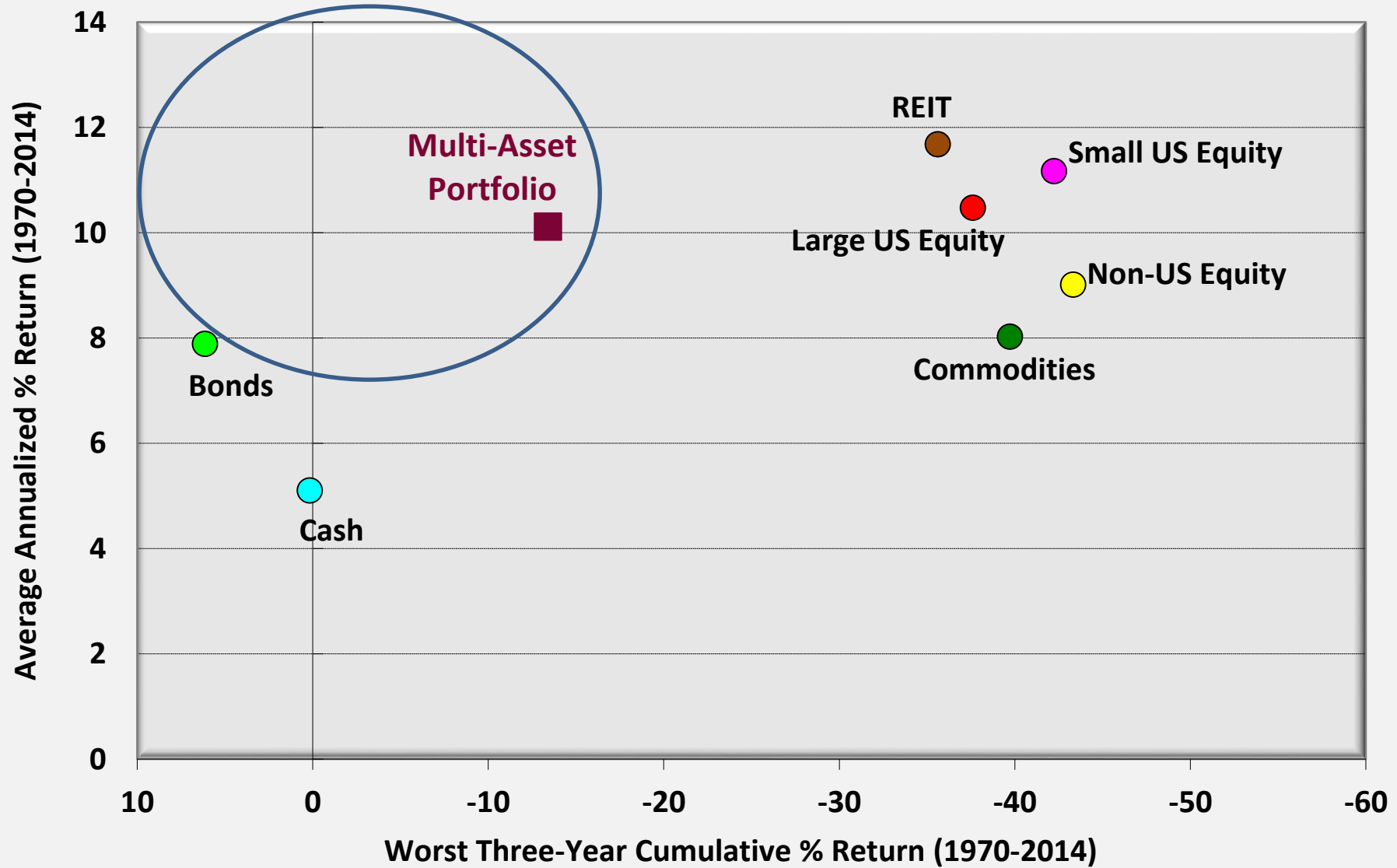
# 45-Year Risk/Return Analysis: 1970-2014



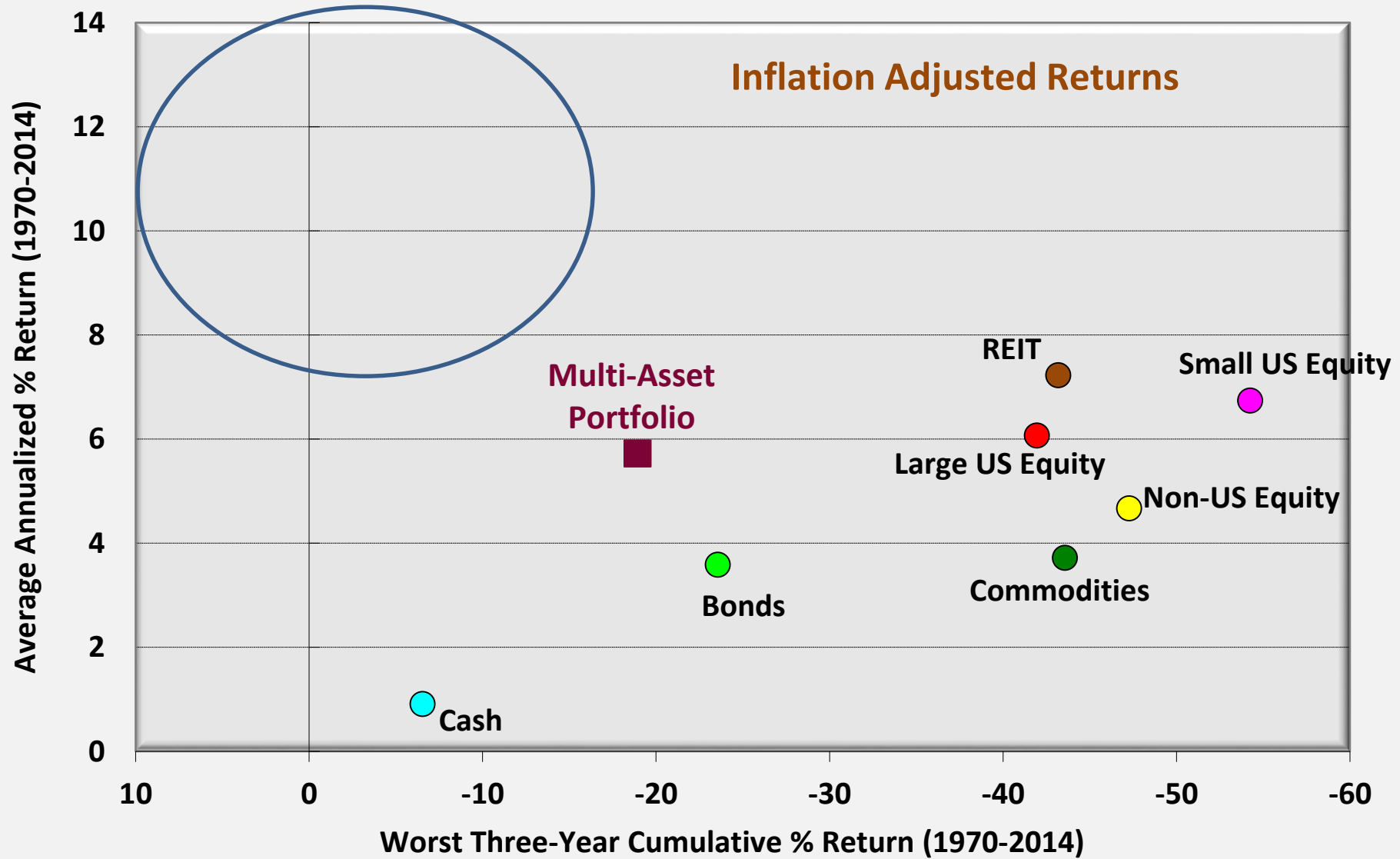
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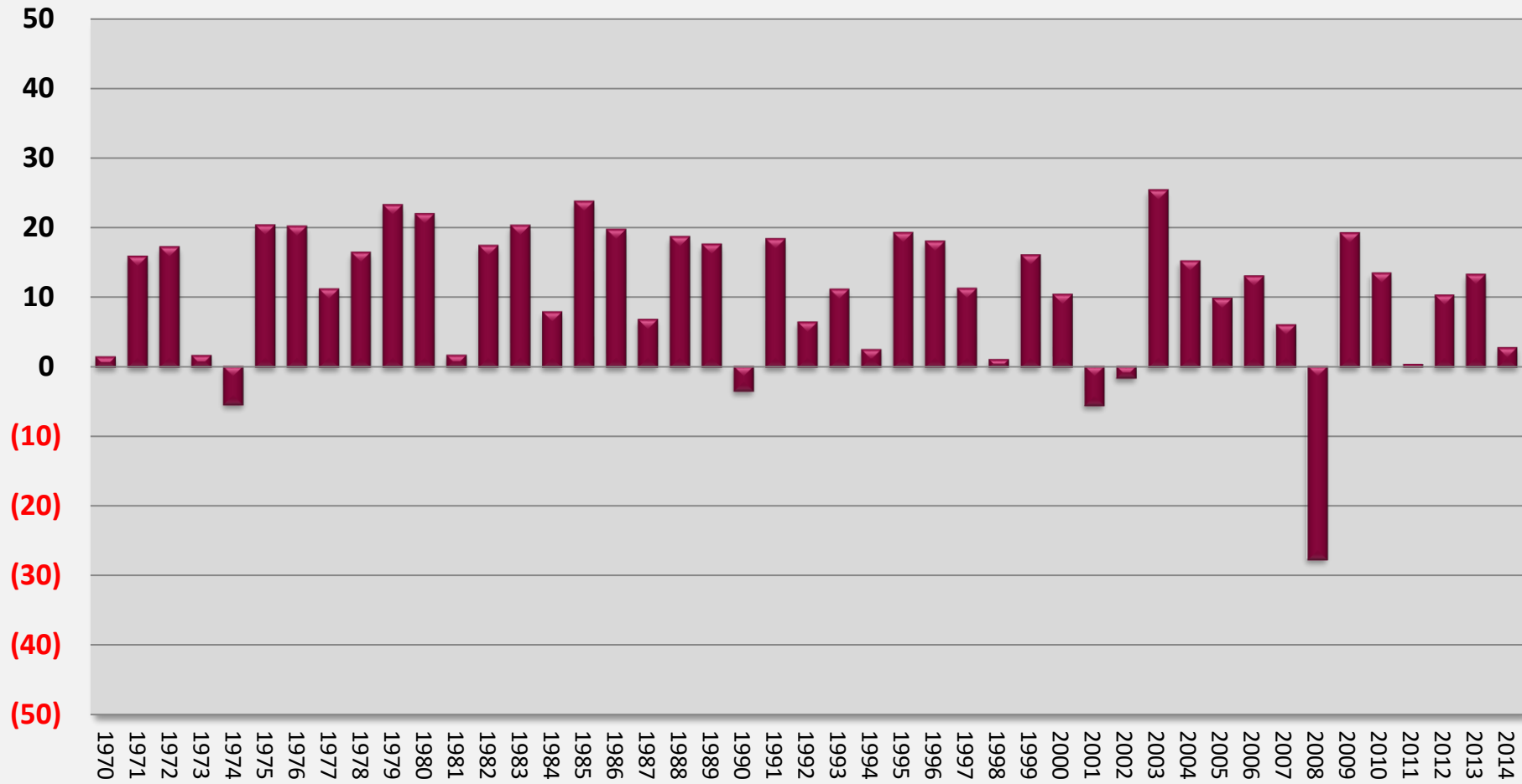


**Will a diversified,  
multi-asset portfolio always win?**

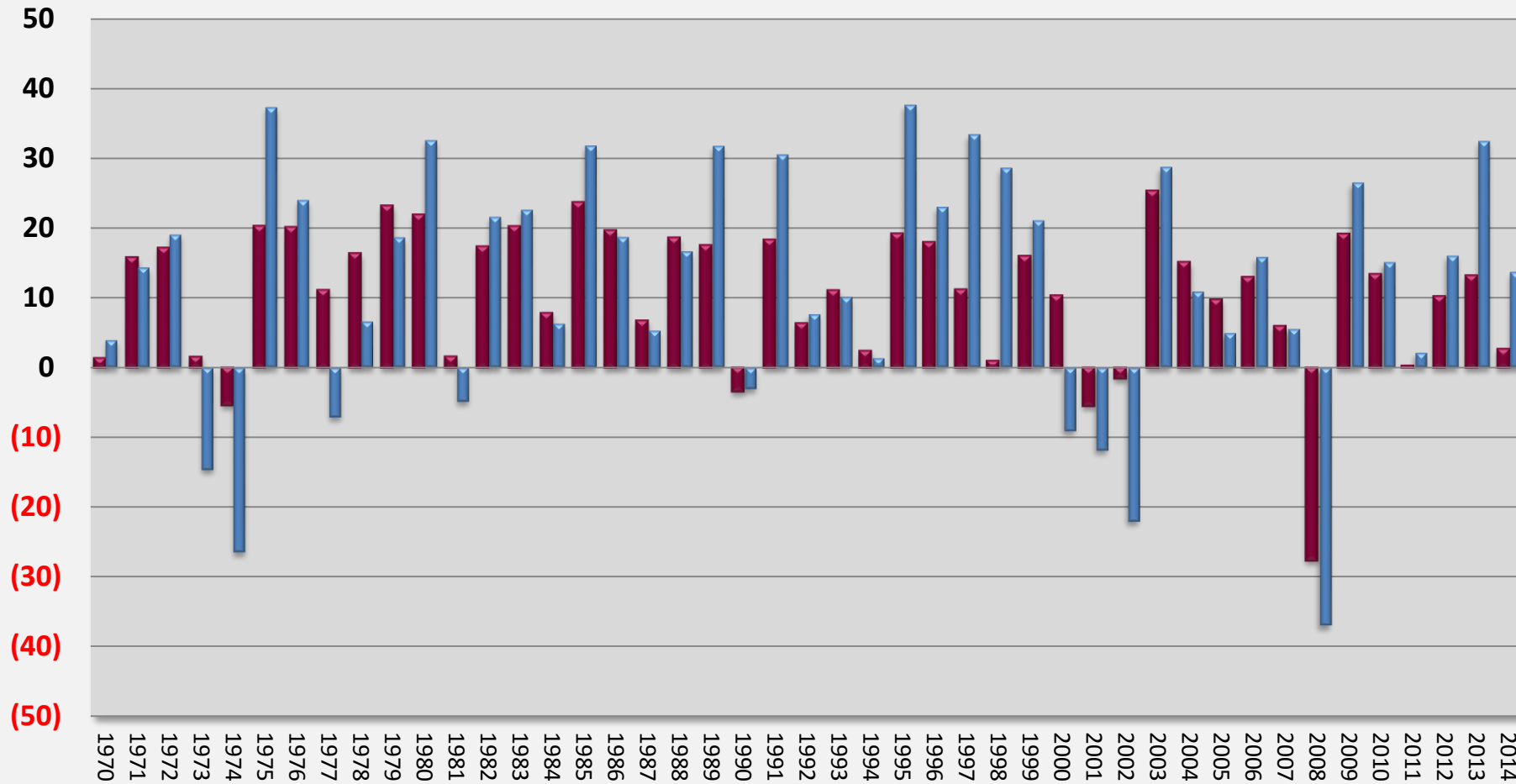
**Will a diversified,  
multi-asset portfolio always win?**

**No. It is a long-term strategy—  
not a get-rich-quick approach.**

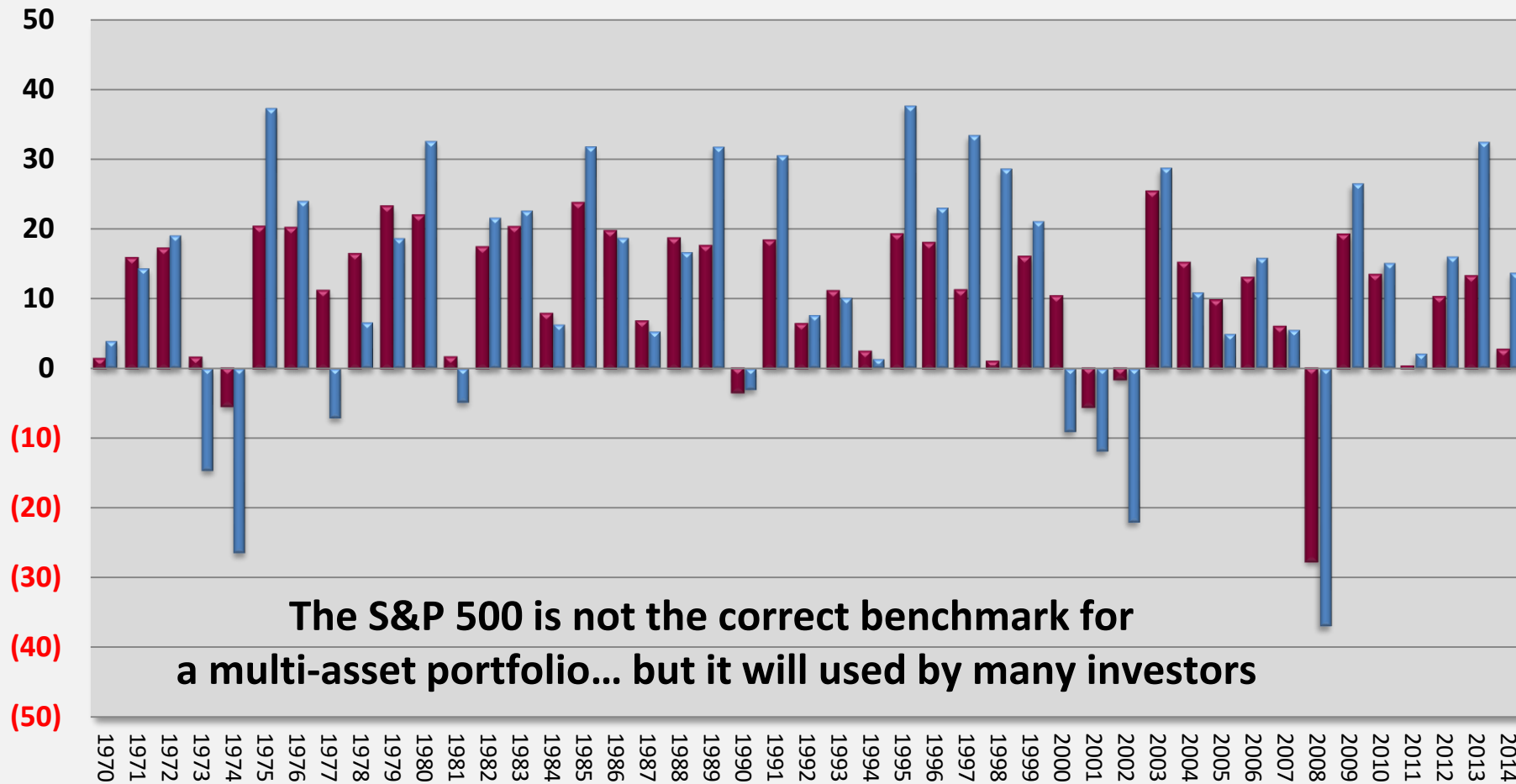
## Annual Returns for Multi-Asset Portfolio 45-year Period: 1970-2014



## Annual Returns for **Multi-Asset Portfolio** vs. **S&P 500 Index** 45-year Period: 1970-2014

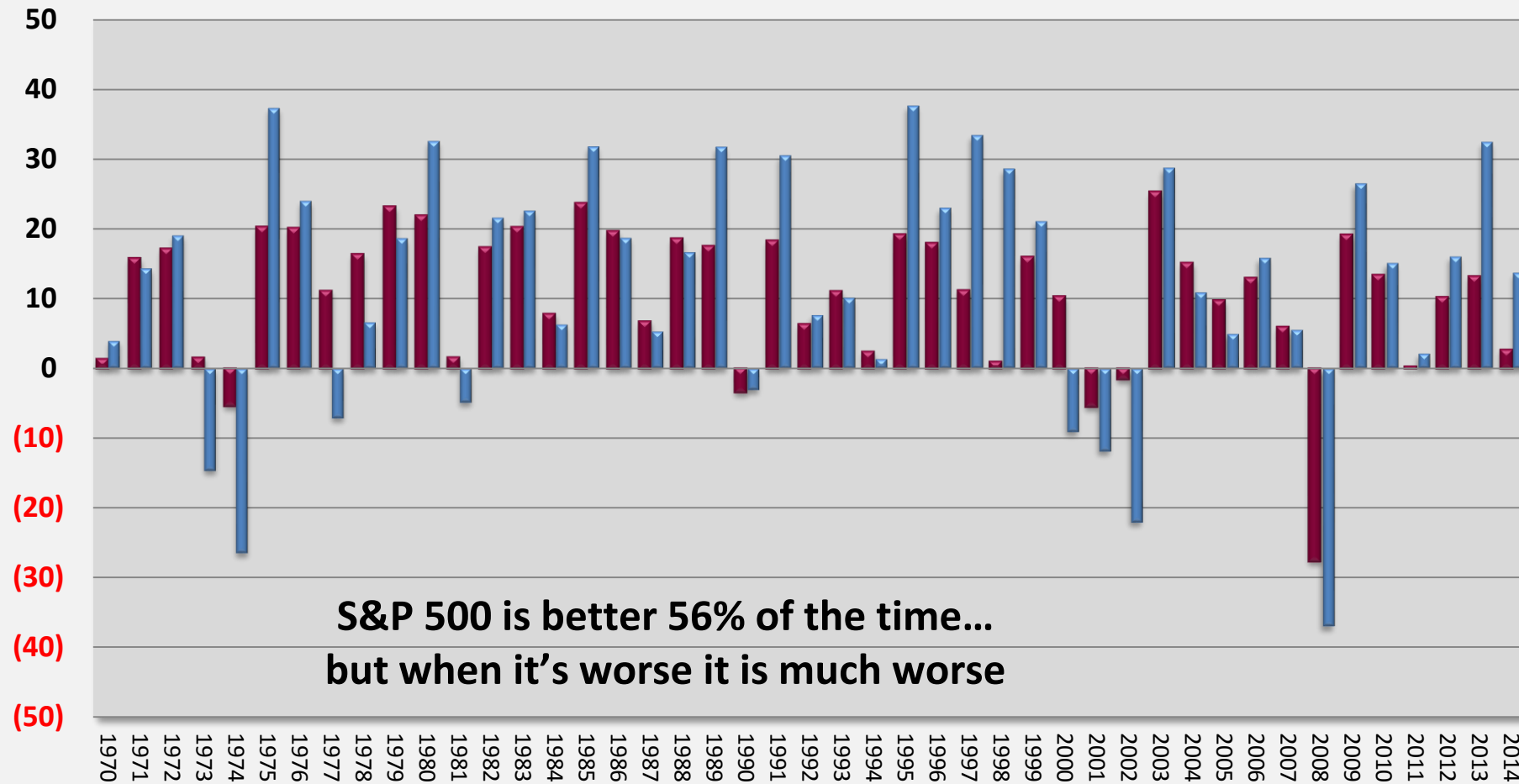


## Annual Returns for **Multi-Asset Portfolio** vs. **S&P 500 Index** 45-year Period: 1970-2014

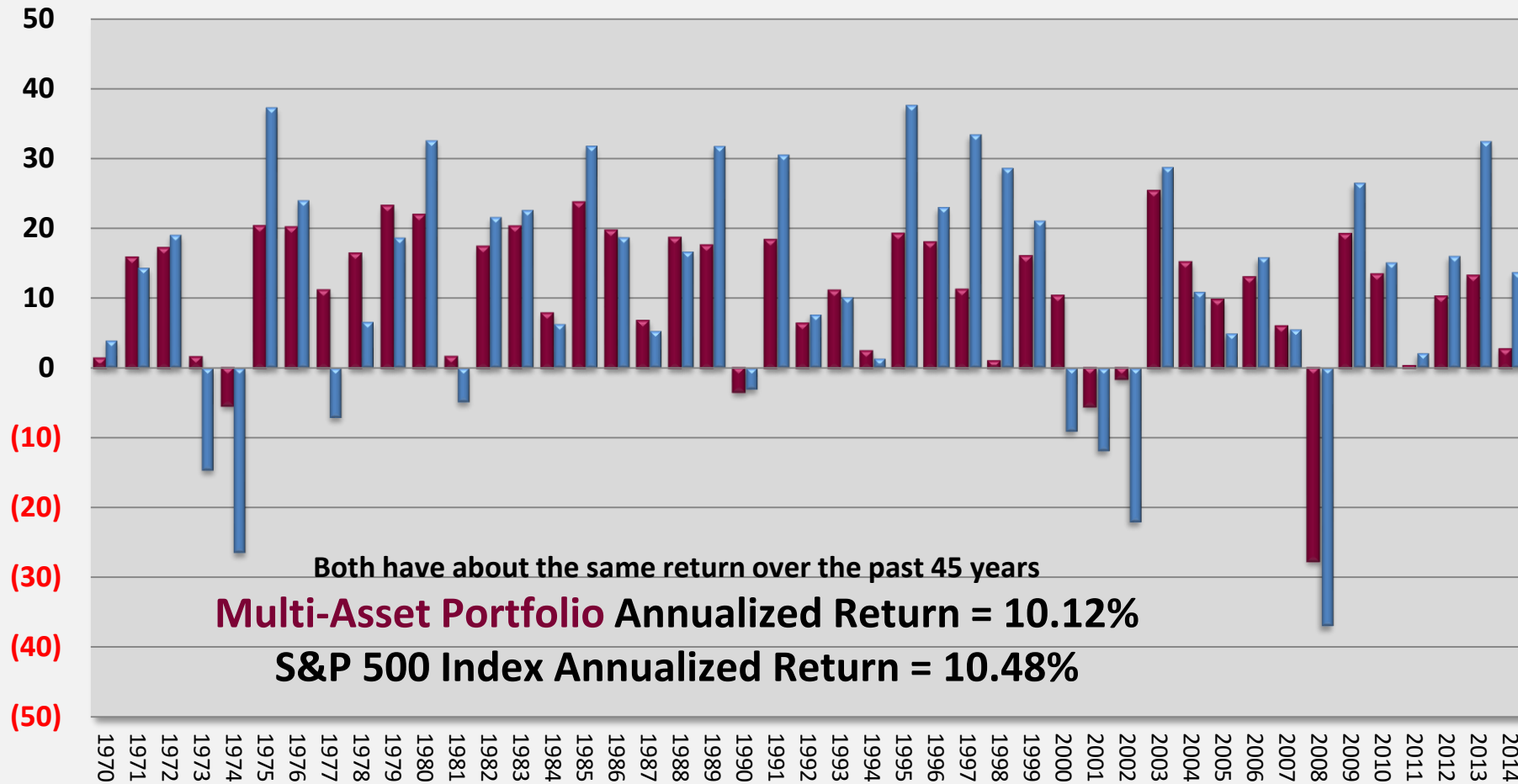


**The S&P 500 is not the correct benchmark for  
a multi-asset portfolio... but it will used by many investors**

## Annual Returns for **Multi-Asset Portfolio** vs. **S&P 500 Index** 45-year Period: 1970-2014



## Annual Returns for **Multi-Asset Portfolio** vs. **S&P 500 Index** 45-year Period: 1970-2014



# The Math of Losses and Needed Gains

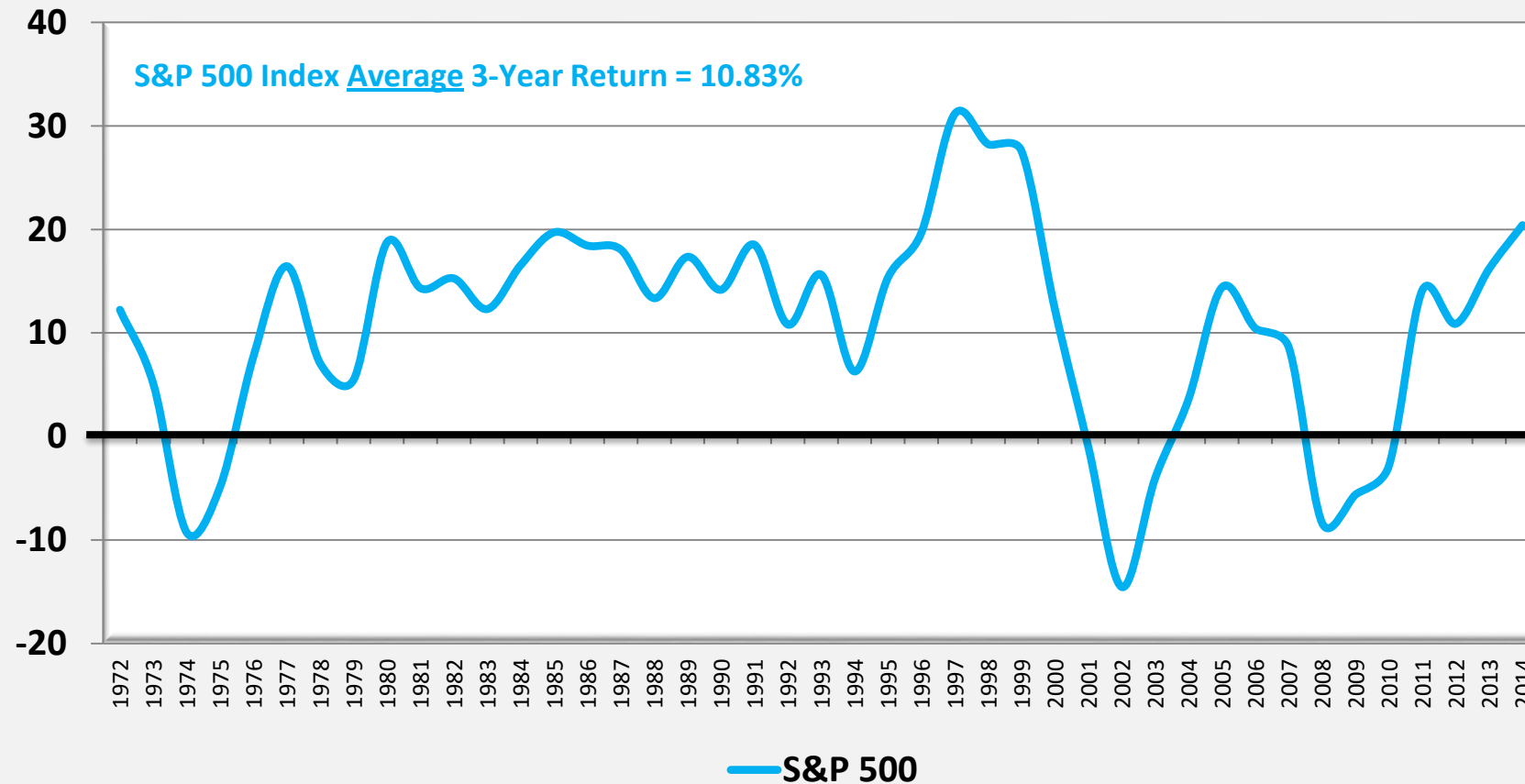
$$\text{Needed \% Gain} = [1 / (1 - \% \text{ Loss})] - 1$$

Percentage Loss in Portfolio	Portfolios	Needed Percentage Gain to Restore Portfolio
-5%		5.3%
-10%		11.1%
-15%		17.6%
-20%		25.0%
<b>-27%</b>	<b>Multi-Asset Portfolio in 2008</b>	<b>37.0%</b>
-30%		42.9%
-35%		53.8%
<b>-37%</b>	<b>S&amp;P 500 Index in 2008</b>	<b>58.7%</b>
-40%		66.7%
-45%		81.8%
-50%	<b>141 equity funds lost 50% or more in 2008</b>  <b>(funds with at least 60% equity)</b>	<b>100.0%</b>
-55%		<b>122.2%</b>
-60%		<b>150.0%</b>
-65%		<b>185.7%</b>
-70%		<b>233.3%</b>
<b>-75%</b>		<b>300.0%</b>



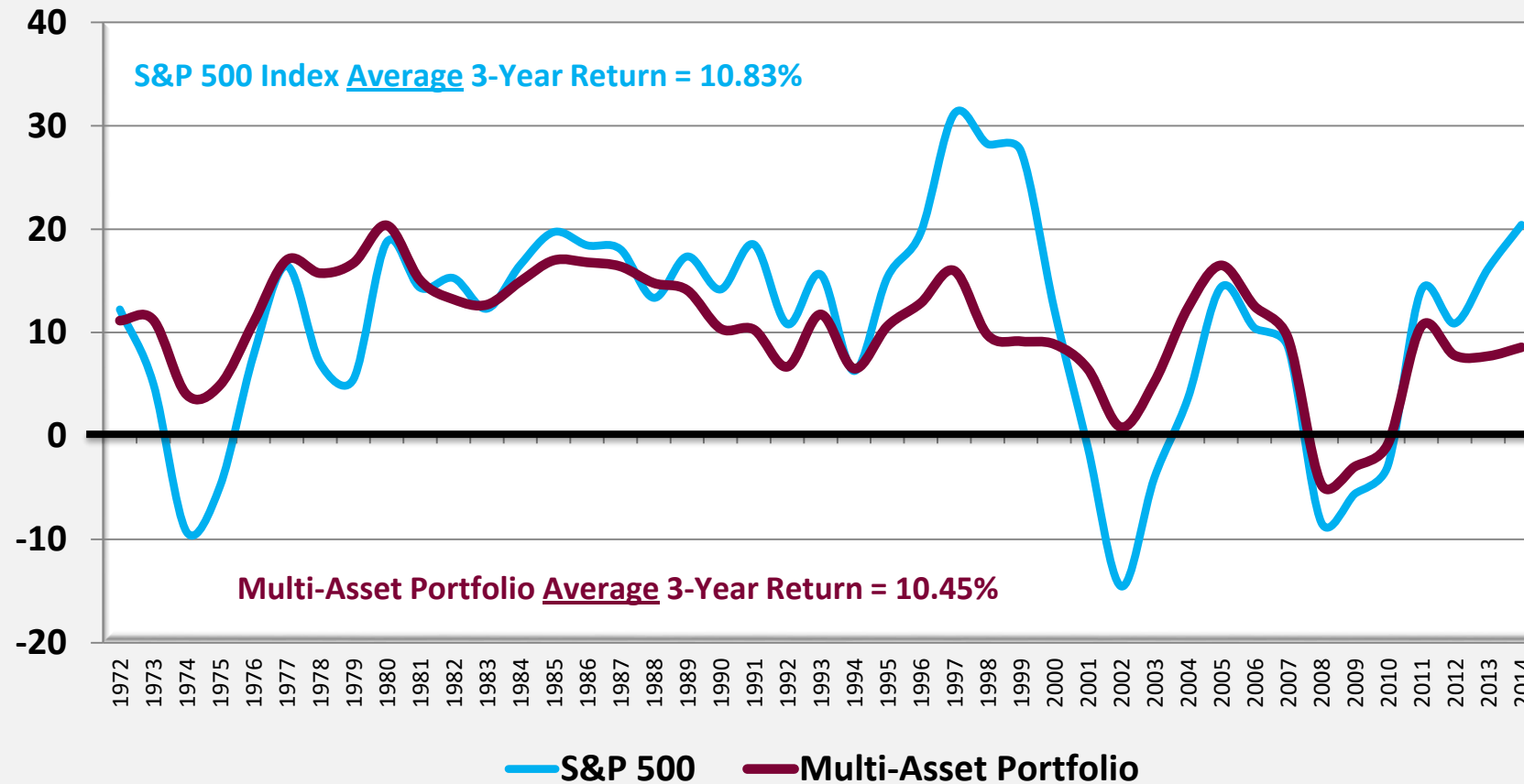
# Rolling 3-Year Returns

1970-2014



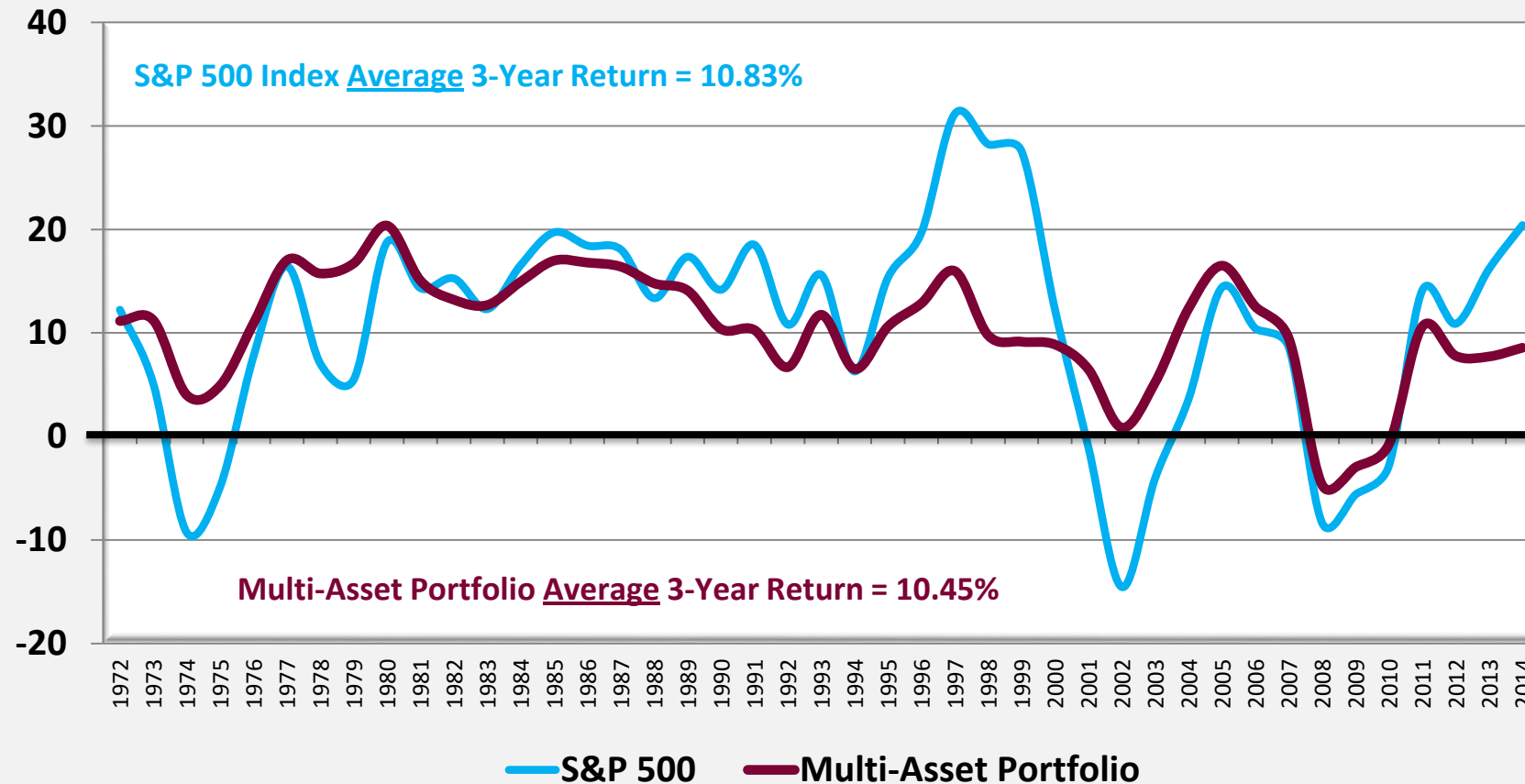
# Rolling 3-Year Returns

1970-2014



# Diversified Portfolio “Core”

*Smoother ride*  
*Fewer periods with negative returns*



# **Portfolio Torture Test 1970-2014**

## **The Withdrawal Phase During Retirement**

## Assumptions

**\$250,000 starting balance**

**5% initial withdrawal rate**

**3% annual cost of living (COLA) increase in withdrawal**

## Analysis

**Ending Balance over Rolling 25-Year Periods**

Starting Account Balance \$250,000  
5% initial withdrawal rate  
3% annual cost of living adjustment

*(Total withdrawal of \$455,741  
in each 25-Year Period)*



**100% Cash**



**50% Cash/  
50% Bonds**



**60% Stock/  
40% Bonds**



**7-Asset  
Portfolio**



**100% Stock**

Starting Year	Ending Year	Ending Account Balance After 25 Years				
1970	1994	352,506	570,137	1,090,081	2,086,863	1,058,302
1971	1995	354,760	528,367	1,310,620	2,714,930	1,564,866
1972	1996	385,161	534,670	1,292,730	2,694,728	1,548,066
1973	1997	420,364	591,509	1,312,351	2,450,756	1,402,732
1974	1998	412,091	624,581	2,282,803	2,681,771	3,517,984
1975	1999	391,702	611,308	3,910,386	3,766,599	8,590,695
1976	2000	403,764	639,285	2,815,315	3,360,585	5,038,266
1977	2001	417,185	592,903	2,073,038	2,554,941	3,309,339
1978	2002	418,138	648,622	2,241,727	2,302,402	3,256,247
1979	2003	391,241	680,299	2,718,993	2,442,985	4,131,500
1980	2004	332,615	682,391	2,661,022	2,141,408	3,806,883
1981	2005	268,075	665,145	2,186,857	1,791,971	2,726,808
1982	2006	185,189	611,481	2,690,393	2,179,529	3,762,944
1983	2007	135,994	426,043	2,110,557	1,903,798	3,171,032
1984	2008	100,987	393,972	1,397,418	1,065,672	1,550,980
1985	2009	58,984	318,555	1,531,523	1,211,611	1,930,166
1986	2010	33,639	225,552	1,183,572	986,639	1,515,343
1987	2011	18,772	177,031	986,296	735,415	1,238,809
1988	2012	5,862	184,213	1,121,074	784,609	1,437,432
1989	2013	0	157,827	1,149,944	657,047	1,581,748
1990	2014	0	106,631	872,236	489,074	1,149,306
<b>Median Ending Account Balance</b>		<b>332,615</b>	<b>570,137</b>	<b>1,531,523</b>	<b>2,141,408</b>	<b>1,930,166</b>

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**7-Asset  
Portfolio**



**100% Stock**

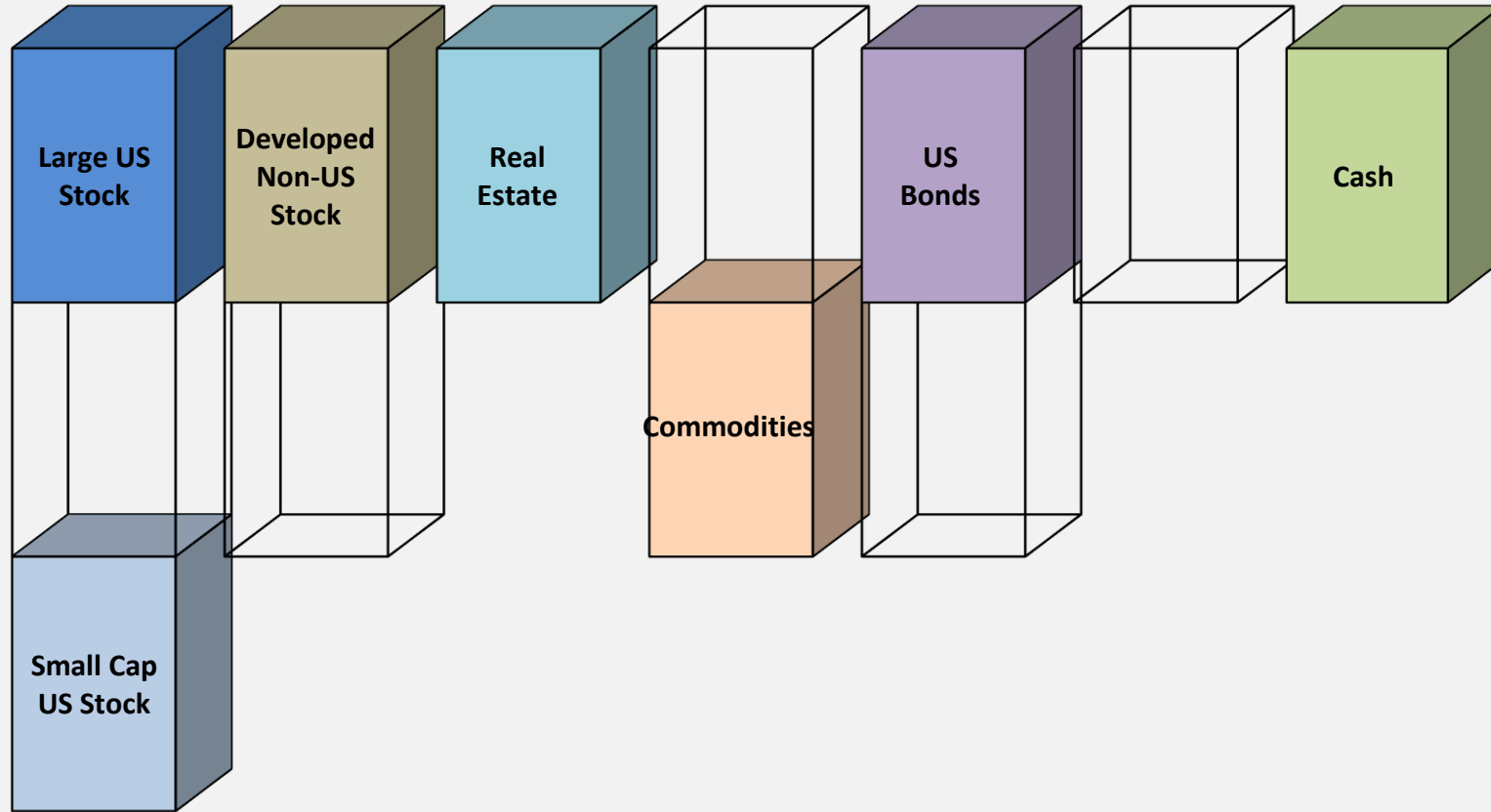
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**Moving from 7 assets  
to *Twelve* assets  
in a portfolio “core”**



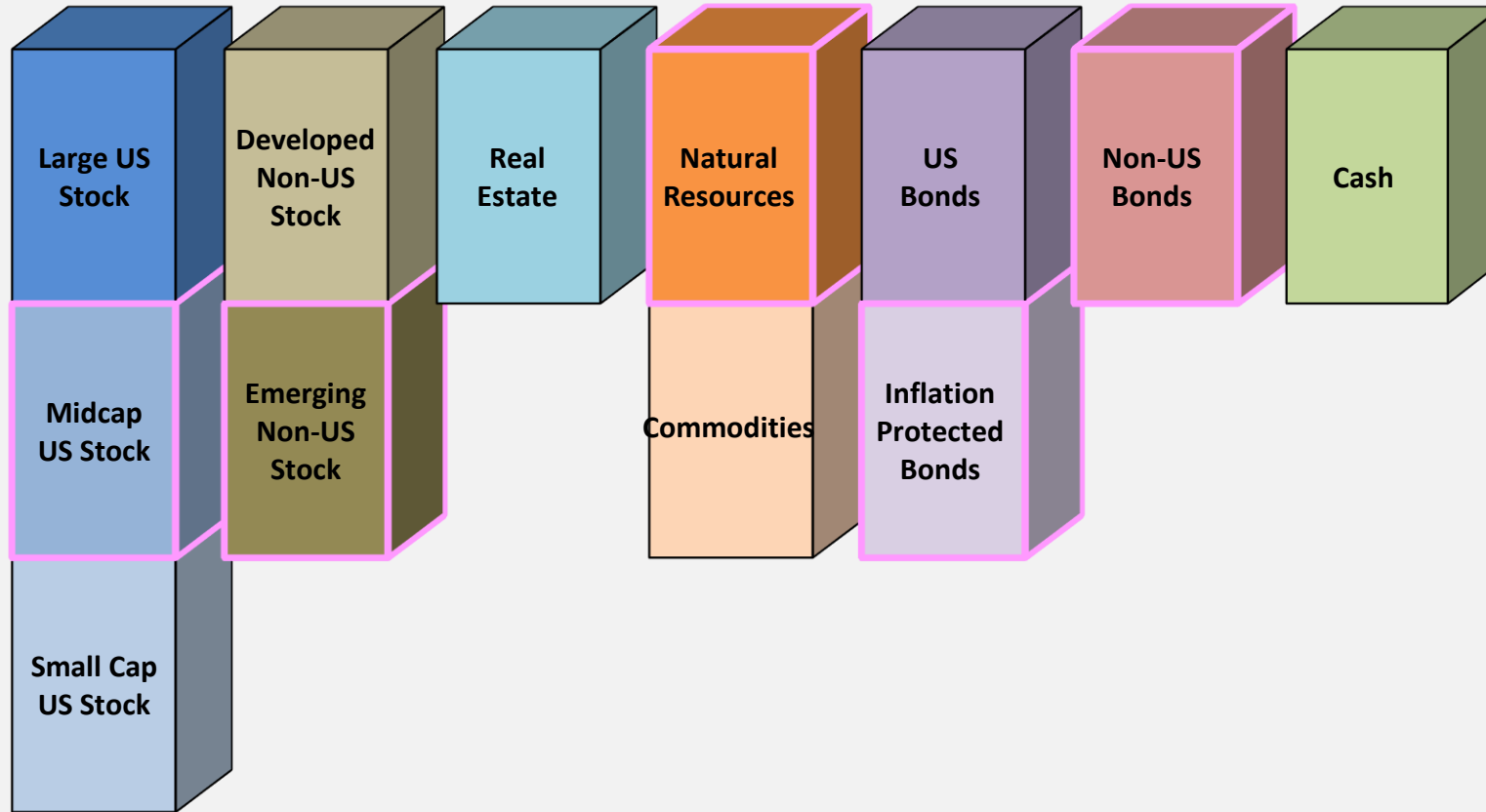
# Good Diversification

## 7-Asset Portfolio



# Superior Diversification

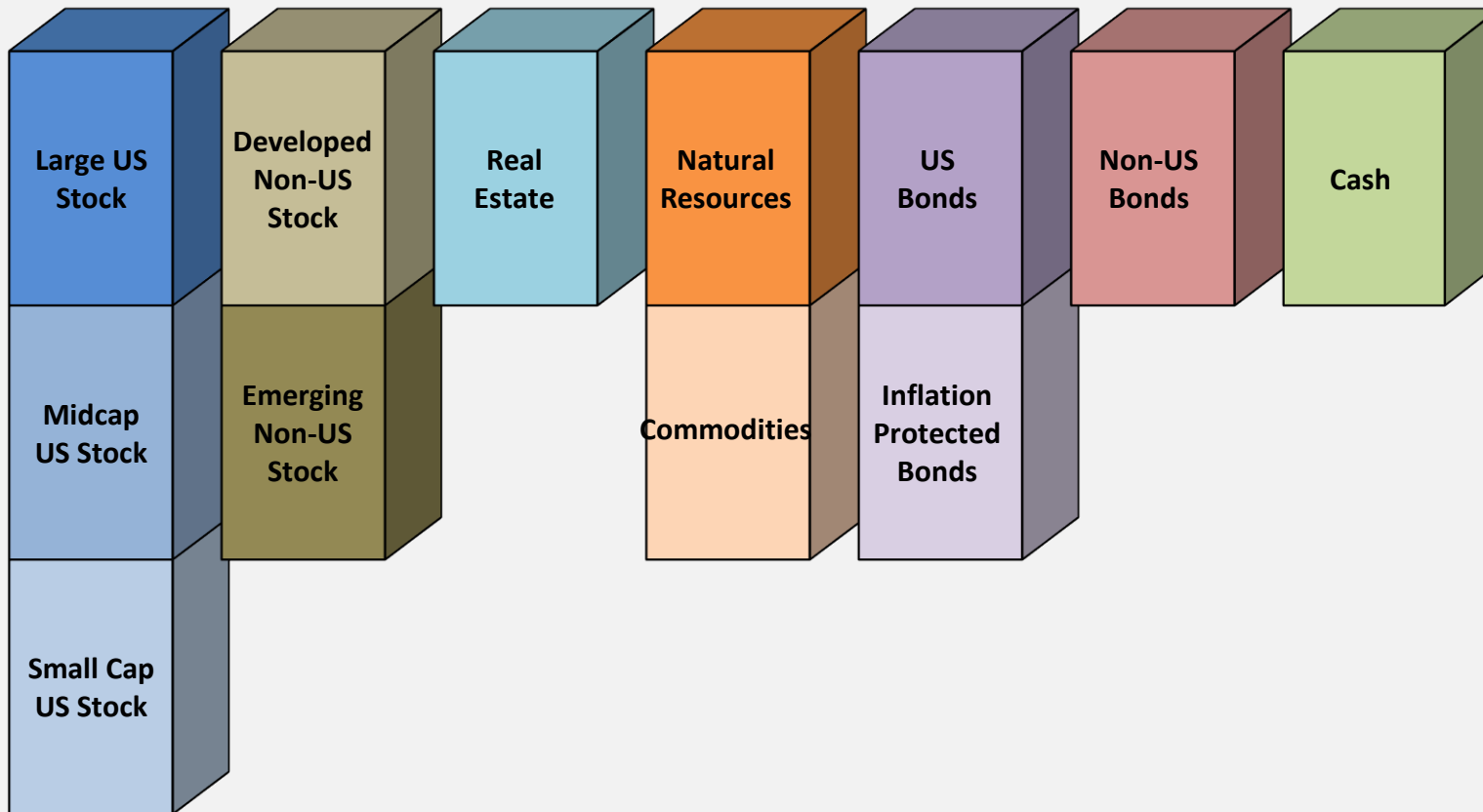
## 12-Asset Portfolio “Core”



# 7Twelve<sup>®</sup>

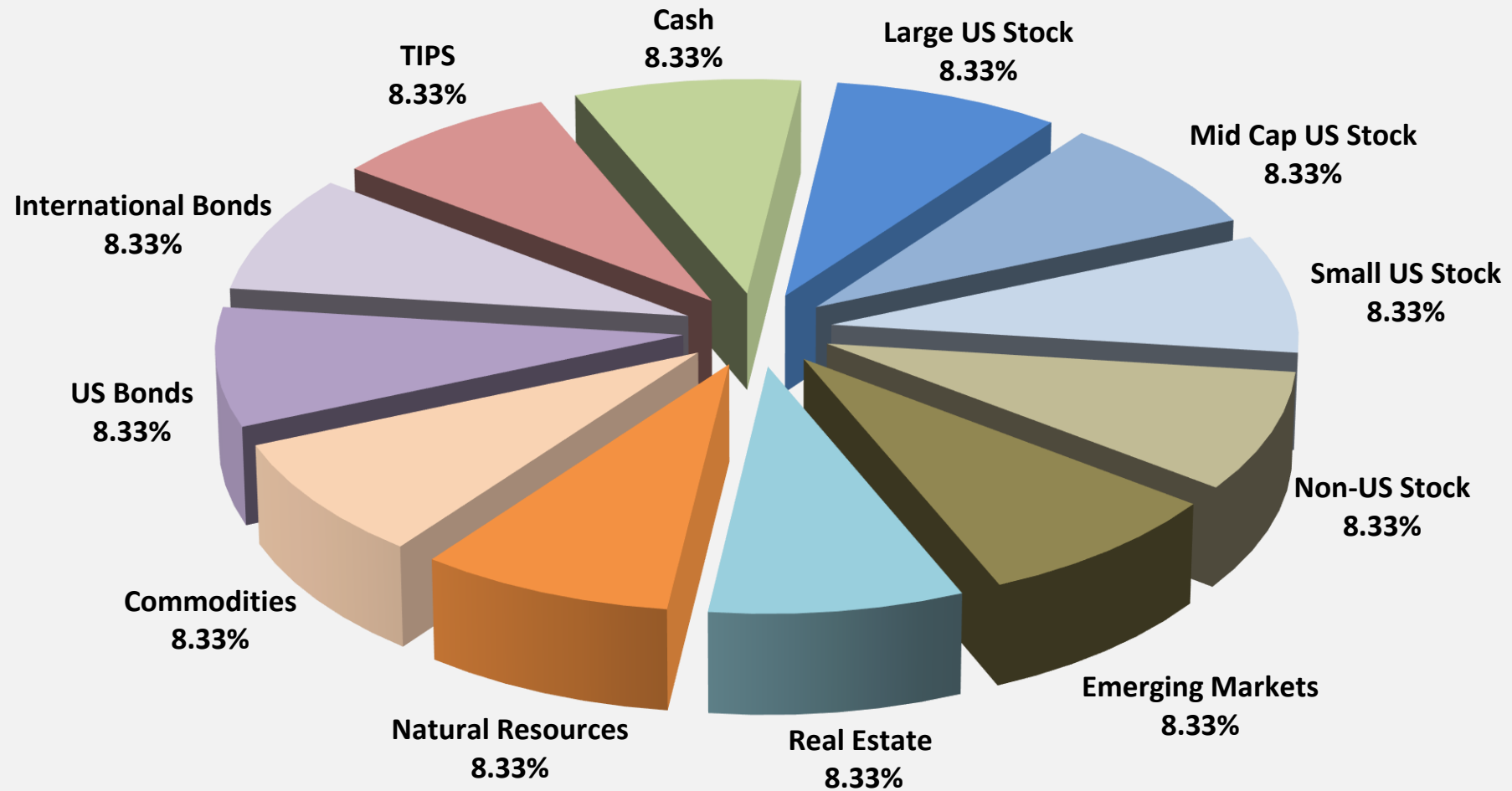
**7** Core Asset Classes **Twelve** Actual Holdings

US Stock    Non-US Stock    Real Estate    Resources    US Bonds    Non-US Bonds    Cash



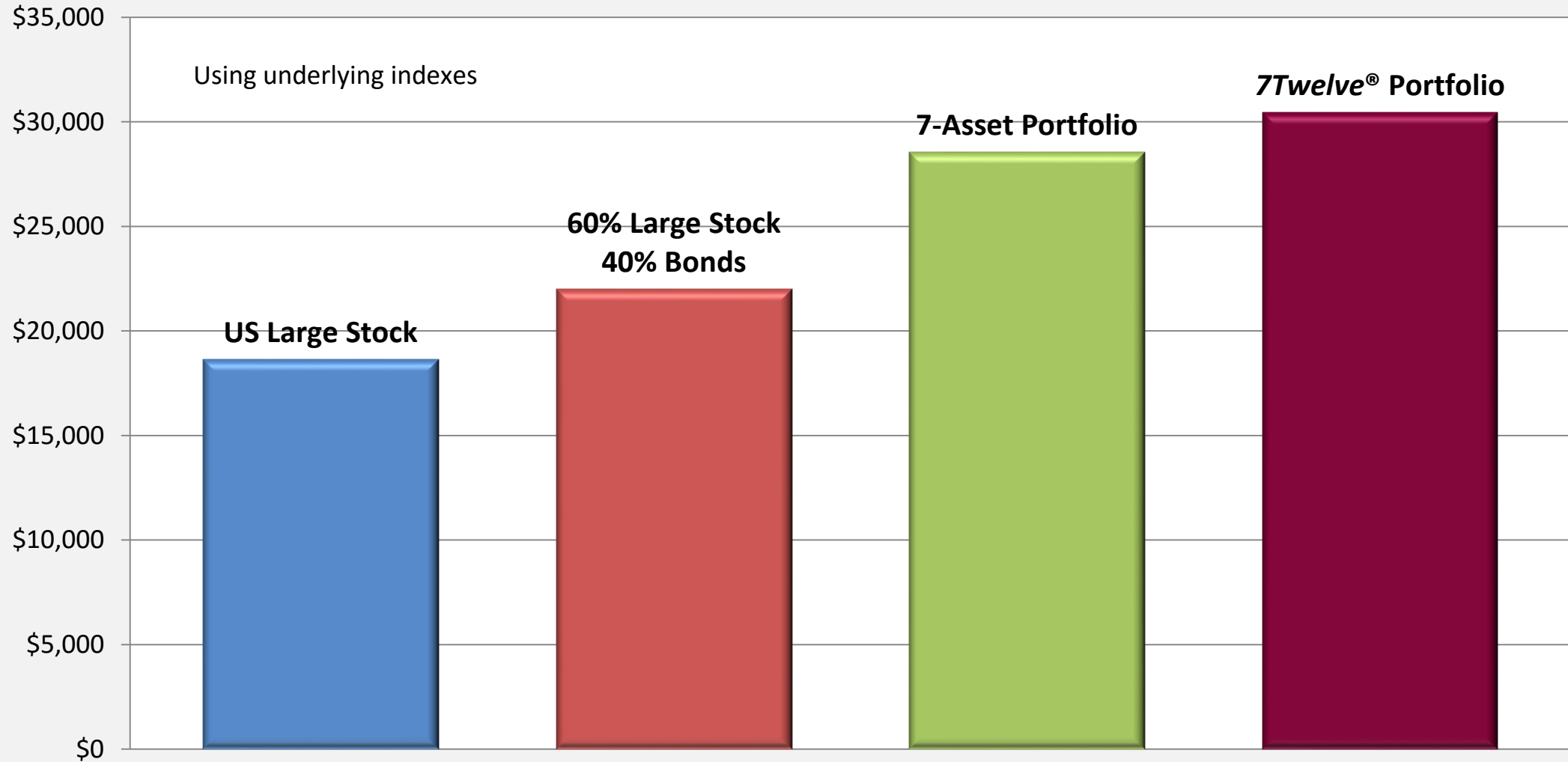


## Equally-weighted exposure to 12 asset classes

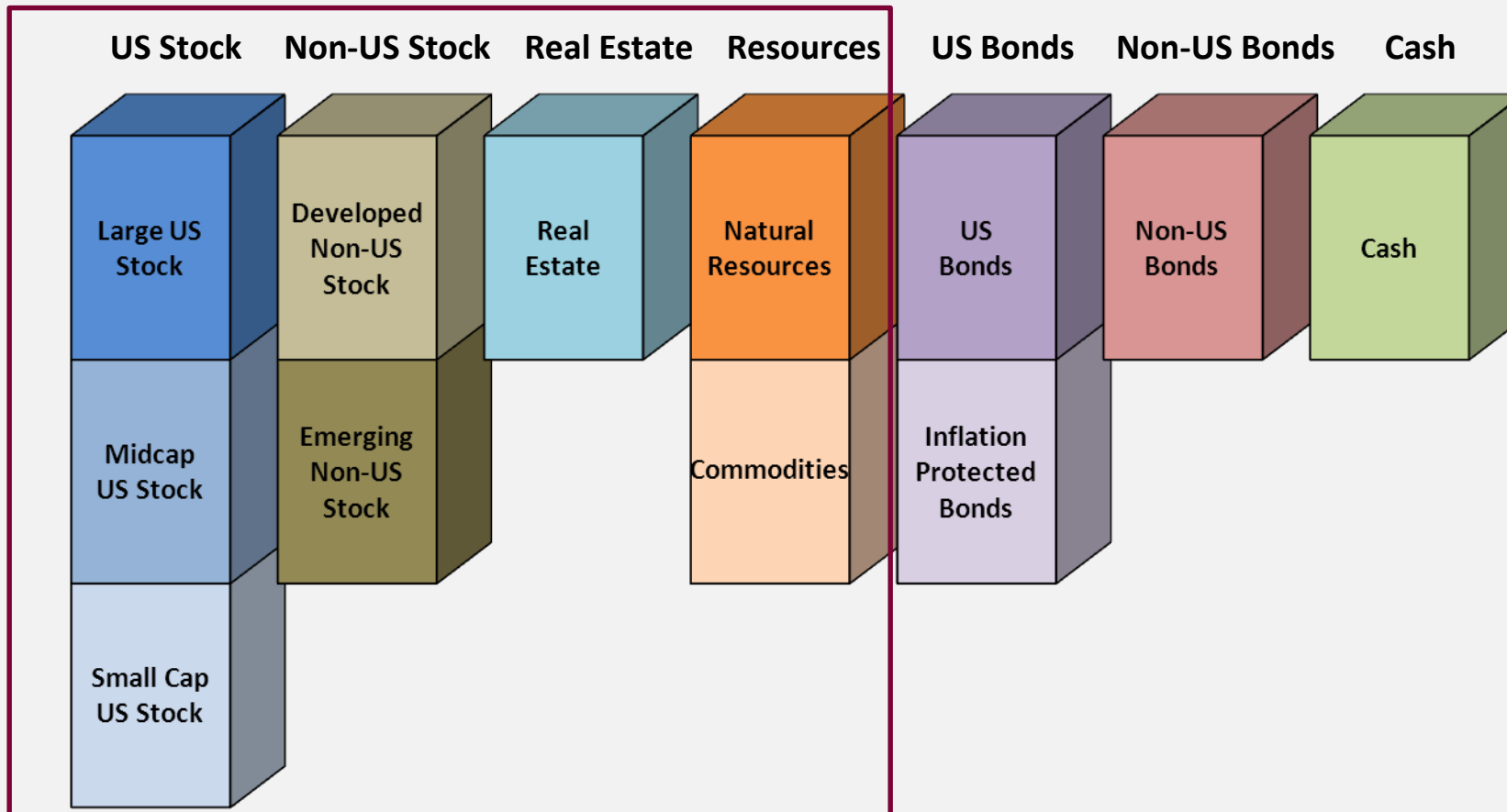


# 15-Year Growth of \$10,000

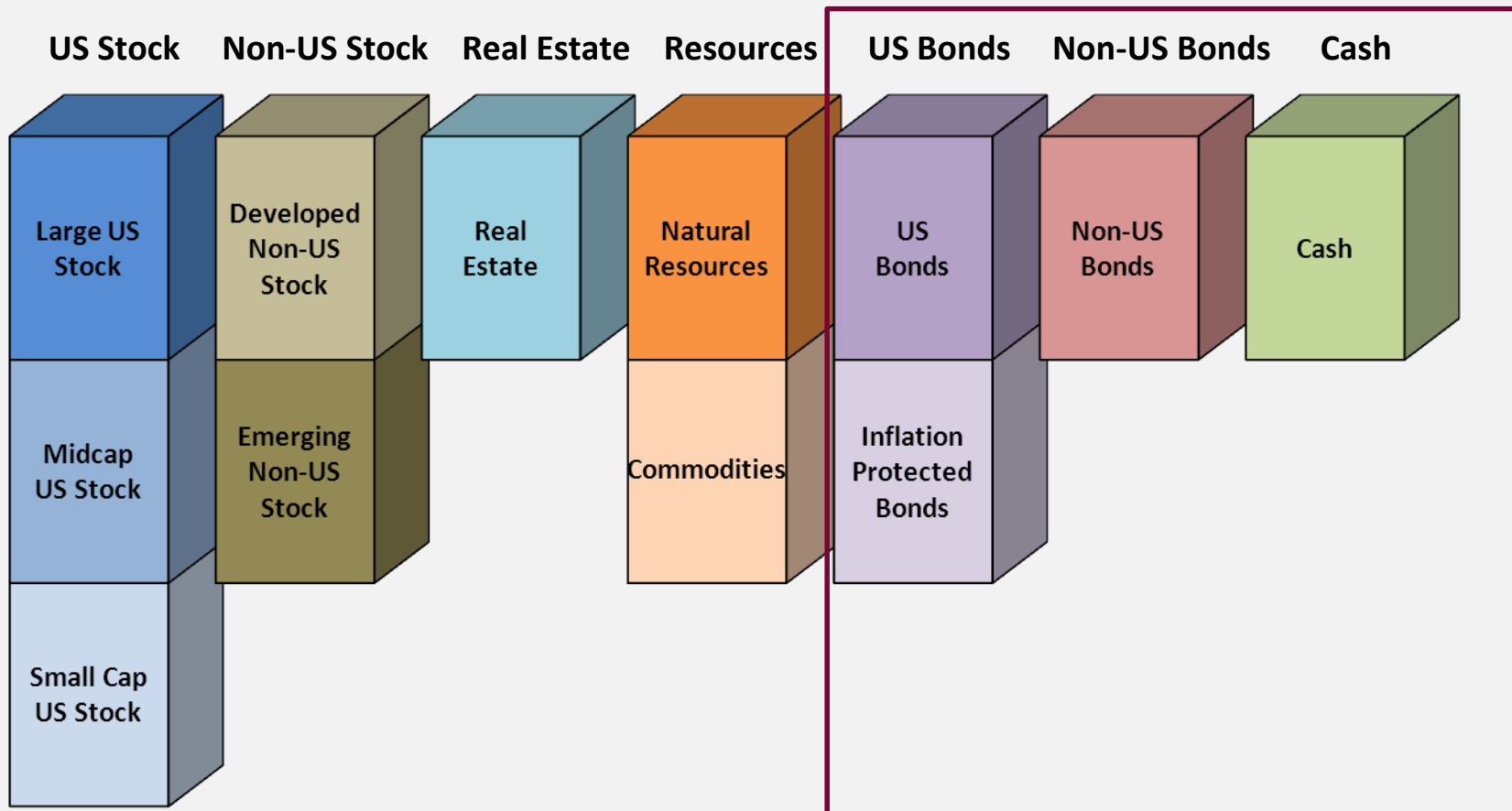
2000-2014



**Eight Equity and Diversifying Holdings**  
The “Engines” of the Portfolio



**Four Fixed Income Holdings**  
The **“Safety Brakes”** of the Portfolio



## Brakes Have Outperformed 1/3 of the time

Year	7Twelve Brakes (4 ETFs)	
2000	6.86	
2001	3.93	
2002	12.36	
2003	7.67	
2004	6.29	
2005	-0.34	
2006	4.01	
2007	8.58	
2008	3.73	
2009	4.65	
2010	4.06	
2011	6.30	
2012	4.05	
2013	-3.53	
2014	-0.65	
<b>3-Year Return</b>	<b>-0.09</b>	
<b>5-Year Return</b>	<b>1.98</b>	
<b>10-Year Return</b>	<b>3.03</b>	
<b>15-Year Return</b>	<b>4.46</b>	



**Brakes** Have Outperformed 1/3 of the time  
**Engines** Have Outperformed 2/3 of the time

Year	7Twelve Brakes (4 ETFs)	7Twelve Engines (8 ETFs)
2000	6.86	6.72
2001	3.93	-4.46
2002	12.36	-7.35
2003	7.67	36.80
2004	6.29	23.50
2005	-0.34	18.42
2006	4.01	20.72
2007	8.58	12.67
2008	3.73	-38.79
2009	4.65	35.03
2010	4.06	19.72
2011	6.30	-4.66
2012	4.05	14.25
2013	-3.53	16.08
2014	-0.65	2.40
<b>3-Year Return</b>	<b>-0.09</b>	<b>10.74</b>
<b>5-Year Return</b>	<b>1.98</b>	<b>9.16</b>
<b>10-Year Return</b>	<b>3.03</b>	<b>7.51</b>
<b>15-Year Return</b>	<b>4.46</b>	<b>8.27</b>

# 7Twelve®

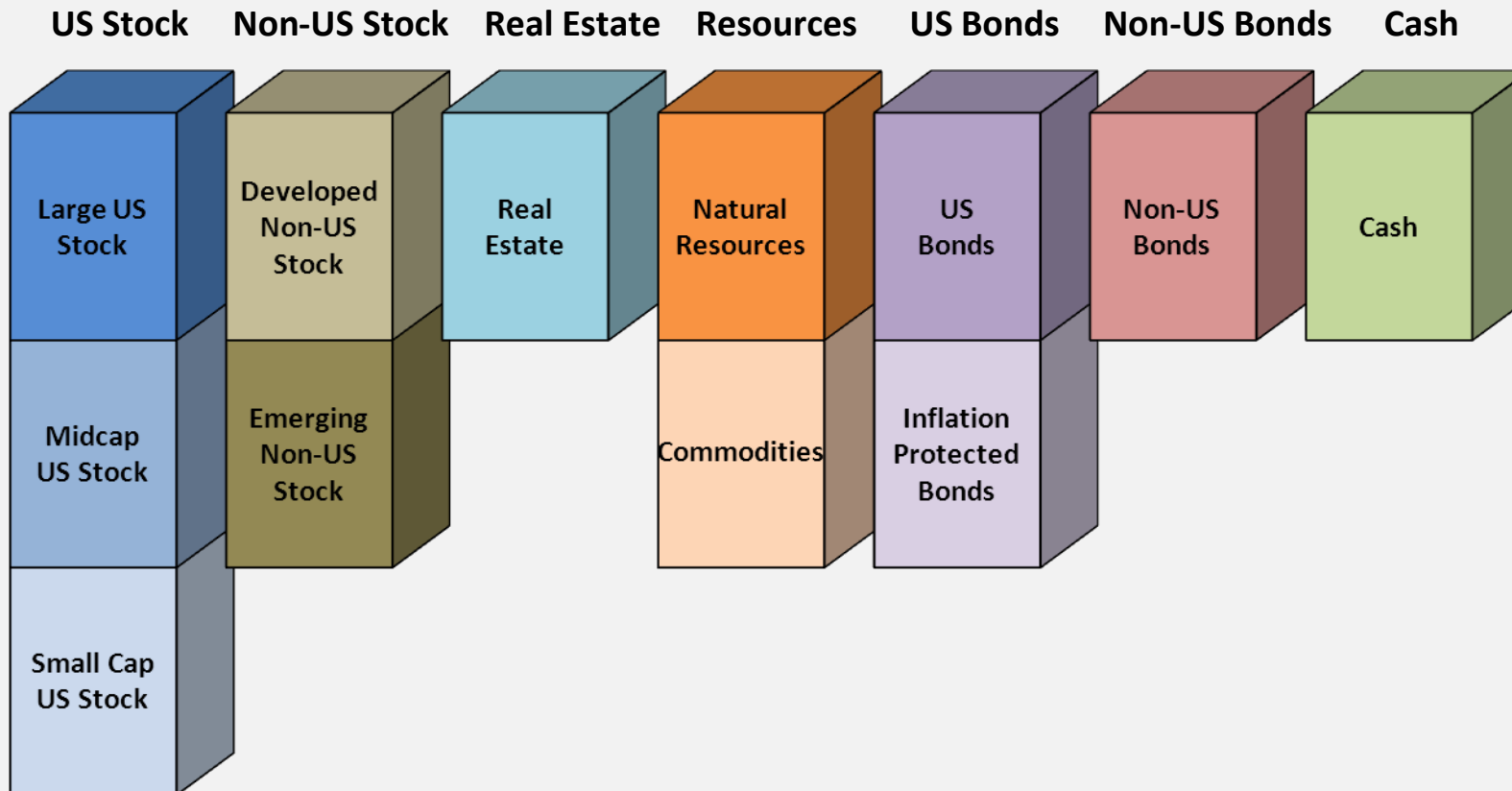
## A Multi-Asset Balanced Strategy

Equities and Diversifiers: 8 ENGINES

**65%** of Overall Portfolio Allocation

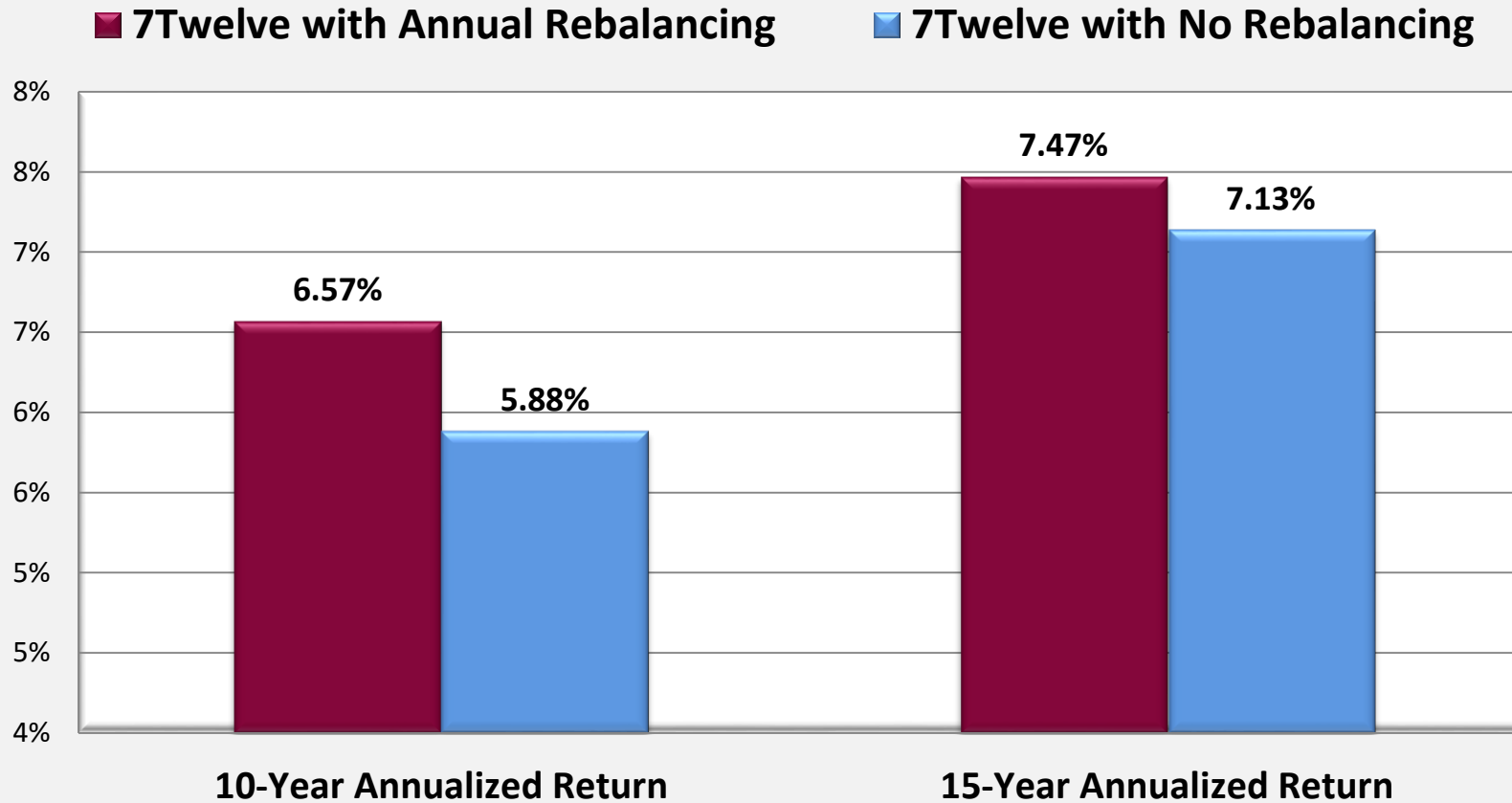
Fixed Income: 4 BRAKES

**35%** of Overall Portfolio Allocation



# Rebalancing Comparison

Performance as of December 31, 2014





15-Year Annualized Return from 2000-2014  
Passive 7Twelve® model

## Rebalancing Frequency

Monthly Rebalancing	Quarterly Rebalancing	Annual Rebalancing
7.23	7.41	7.47

## Craig L. Israelsen, Ph.D.

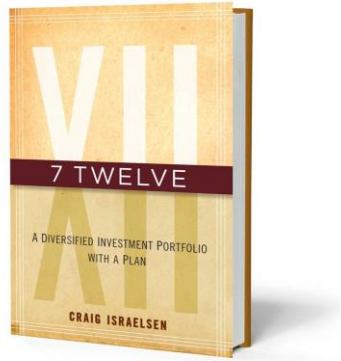
Dr. Israelsen holds a Ph.D. in Family Resource Management from Brigham Young University. He received a B.S. in Agribusiness and a M.S. in Agricultural Economics from Utah State University. He taught at Brigham Young University for 9 years and at the University of Missouri-Columbia for 14 years. He now teaches as an Executive-in-Residence at Utah Valley University in the Personal Financial Planning Program in the Woodbury School of Business.



Dr. Israelsen designed the 7Twelve® Portfolio in the spring of 2008. Since that time hundreds of financial advisors have adopted it as the investment model for clients.

Primary among his research interests is the analysis of mutual funds and the design of investment portfolios. He writes monthly for *Financial Planning Magazine* and is a regular contributor to the *Journal of Indexes* and *Horseshmouth.com*. His research has also been published in the *Journal of Financial Planning*, *Journal of Asset Management (U.K.)*, *Journal of Performance Measurement*, *Asia Financial Planning Journal (Singapore)*, *Journal of Family and Economic Issues*, and *Financial Counseling and Planning*.

His research has been cited in the *Christian Science Monitor*, *Wall Street Journal*, *Newsweek*, *Forbes*, *Smart Money Magazine*, *Kiplinger Retirement Report*, *Advisor Perspectives*, *Dow Jones Market Watch*, *Family Circle Magazine*, and *Bottom Line Personal*. Dr. Israelsen is also the developer of the 7Twelve® Portfolio ([www.7TwelvePortfolio.com](http://www.7TwelvePortfolio.com)) and the author of three books. His most recent book is titled "7Twelve: A Diversified Investment Portfolio with a Plan" (John Wiley & Sons, 2010).



He is married to Tamara Trimble. They have seven children (Sara, Andrew, Heidi, Mark, Nathan, Emma, Jared). Hobbies include running, biking, swimming, woodworking, and family vacations. He has competed in the Boston Marathon 5 times, but has never won.

For more information about the 7Twelve Portfolio visit [www.7TwelvePortfolio.com](http://www.7TwelvePortfolio.com)

**7Twelve® is a registered trademark owned by Craig L. Israelsen.**

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This document is neither investment advice nor an investment solicitation.

Implementation of the **7Twelve**<sup>®</sup> portfolio is no guarantee of performance. As we all know past performance is no guarantee of future performance.

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# The *7Twelve*<sup>®</sup> Portfolio

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