

The 7Twelve™ Portfolio: An Introduction

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January 2013

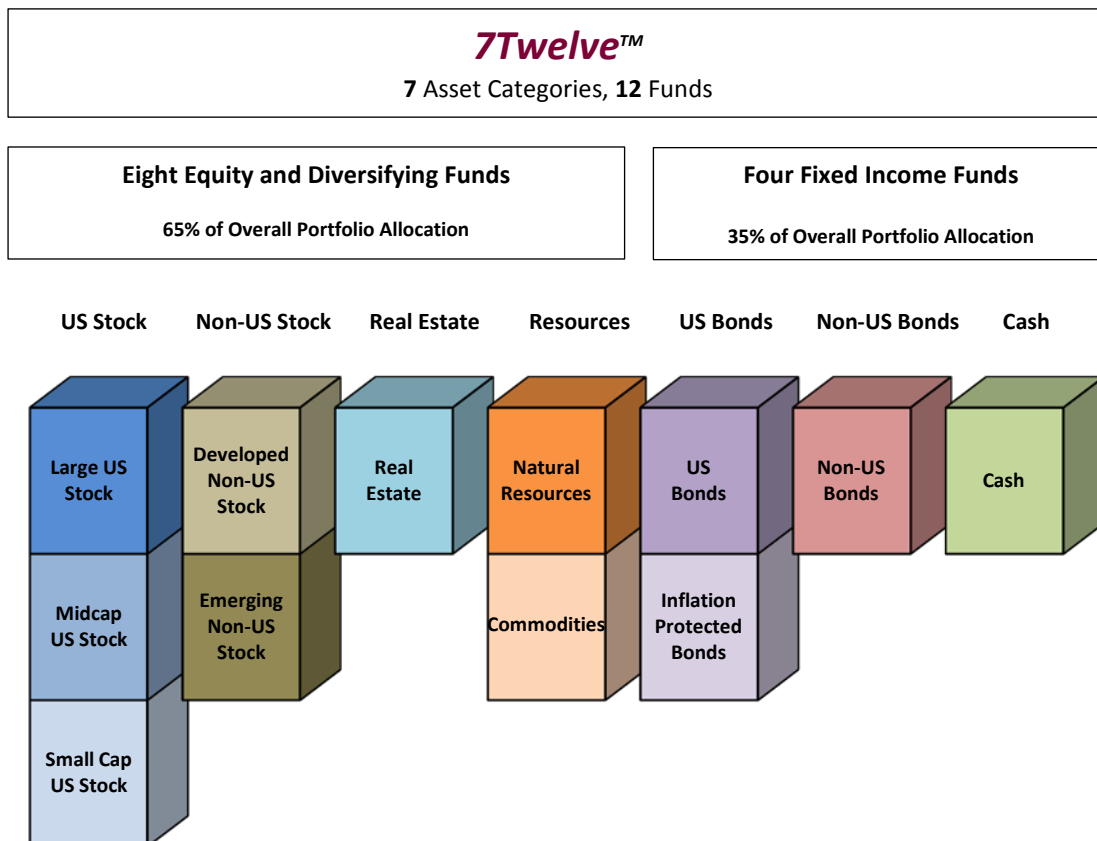
This brief report introduces a multi-asset portfolio design that brings a higher standard to the notion of “diversified”. This design is referred to as the **7Twelve** portfolio.

The name “7Twelve” refers to “7” asset categories with “Twelve” underlying mutual funds. The seven asset categories include: US stock, non-US stock, real estate, resources, US bonds, non-US bonds, and cash. The 7Twelve model is shown below in Figure 1.

The 12 mutual funds utilized in the 7Twelve design can be index funds, exchange traded funds (ETFs), or regular mutual funds. All 12 funds are equally weighted in the “core” 7Twelve model (each with an allocation of 8.33%). The equal-weighting is maintained by periodic rebalancing. There are also three “Age Based” versions of the 7Twelve model that progressively reduce the risk of the portfolio.

You can build a 7Twelve portfolio using mutual funds from a variety of mutual fund companies. This report outlines a 7Twelve portfolio built with ETFs and index funds—referred to as the “Passive” **7Twelve** model.

Figure 1. The **7Twelve** Portfolio Model



The asset allocation models for the various 7Twelve models are shown in Table 1 and the resulting performance over the past 10 years in Table 2. Two mutual funds are also included as comparisons: Vanguard Balanced Index and Vanguard 500 Index. The performance of the three “Age-Based” 7Twelve models reflects a reduction in risk (most easily observed by performance in 2008).

Table 1. 7Twelve Age-Based Models

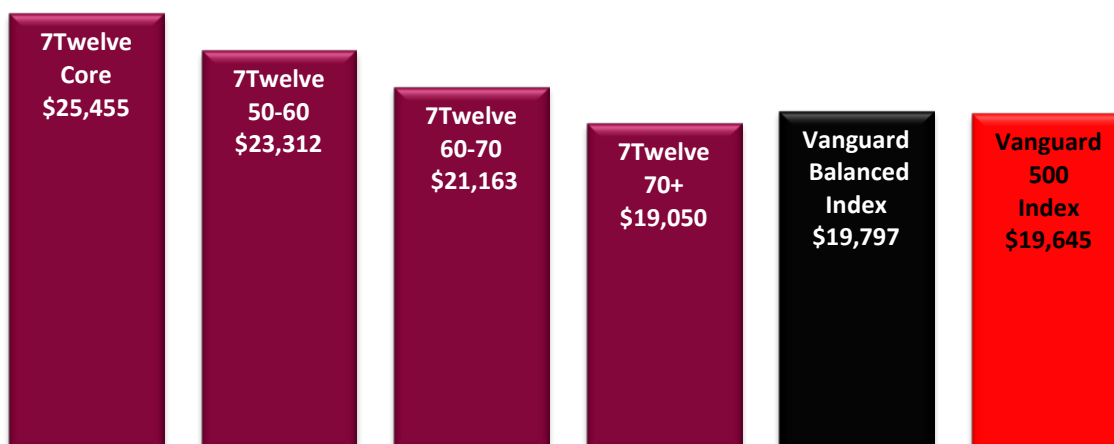
7Twelve Model →	7Twelve Core Model	7Twelve Age Based 50-60	7Twelve Age Based 60-70	7Twelve Age Based 70 Plus
Generally appropriate for...	Investors in the age range of 20-50	Investors in the age range of 50-60	Investors in the age range of 60-70	Investors in the age range of 70+
Investment Objective →	Growth	Growth with Reduced Risk	Transition to Distribution	Distribution/ Preservation
Allocation to 7Twelve Core Model →	100%	80%	60%	40%
7Twelve Assets with Additional Allocation →	None	10% extra to TIPS 10% extra to Cash	20% extra to TIPS 20% extra to Cash	30% extra to TIPS 30% extra to Cash

Table 2. Performance of 7Twelve using Actual ETFs (as of 12/31/2012)

7Twelve Model →	7Twelve Core Model	7Twelve Age Based 50-60	7Twelve Age Based 60-70	7Twelve Age Based 70 Plus	Comparison Mutual Funds	
Portfolio Allocation →	100% 7Twelve Core Model	80% 7Twelve 10% TIPS 10% Cash	60% 7Twelve 20% TIPS 20% Cash	40% 7Twelve 30% TIPS 30% Cash	Vanguard Balanced Index	Vanguard 500 Index
Year	Annual % Return using the Passive 7Twelve Model (Annual Rebalancing)				Annual Return (%)	
2003	27.09	22.58	18.07	13.56	19.87	28.50
2004	17.76	15.15	12.54	9.93	9.33	10.74
2005	12.17	10.29	8.42	6.55	4.65	4.77
2006	15.15	12.63	10.11	7.58	11.02	15.64
2007	11.31	10.75	10.20	9.65	6.16	5.39
2008	(24.62)	(19.47)	(14.32)	(9.18)	(22.21)	(37.02)
2009	24.90	20.87	16.84	12.80	20.05	26.49
2010	14.50	12.22	9.94	7.66	13.13	14.91
2011	(1.01)	0.53	2.06	3.59	4.14	1.97
2012	10.85	9.32	7.79	6.27	11.32	15.83
Pre-Retirement Accumulation Portfolio: 2003-2012 Performance data as of 12/31/2012						
10-Year Annualized Return (%)	9.79	8.83	7.78	6.66	7.07	6.99
10-Year Growth of \$10,000	25,455	23,312	21,163	19,050	19,797	19,645
Annual Expense Ratio (%)	0.29	0.27	0.25	0.22	0.24	0.17

As shown in Figure 2, the 7Twelve models outperformed Vanguard Balanced Index and Vanguard 500 Index (a mutual fund that mimics the S&P 500 Index) over the past 10 years (1/1/2003 to 12/31/2012).

10-Year Growth of \$10,000
January 1, 2003 to December 31, 2012



The core 7Twelve model equally weights all 12 asset classes (mutual funds) at 8.33% each. For those wanting to build one of the 7Twelve Age Based models the appropriate allocations for each of the 12 asset classes are shown below in Table 3.

Table 3. Portfolio Allocations for the 7Twelve Core Model and Age Based Models

7Twelve Model →	7Twelve Core Model	7Twelve Age Based 50-60	7Twelve Age Based 60-70	7Twelve Age Based 70 Plus
7Twelve Asset Category	7Twelve Age Based Portfolio Allocation			
Large US Stock	8.33%	6.67%	5.00%	3.33%
Mid Cap US Stock	8.33%	6.67%	5.00%	3.33%
Small US Stock	8.33%	6.67%	5.00%	3.33%
Non-US Stock	8.33%	6.67%	5.00%	3.33%
Emerging Markets	8.33%	6.67%	5.00%	3.33%
Real Estate	8.33%	6.67%	5.00%	3.33%
Natural Resources	8.33%	6.67%	5.00%	3.33%
Commodities	8.33%	6.67%	5.00%	3.33%
US Bonds	8.33%	6.67%	5.00%	3.33%
Inflation Protected Bonds	8.33%	16.67%	25.00%	33.33%
International Bonds	8.33%	6.67%	5.00%	3.33%
Cash	8.33%	16.67%	25.00%	33.33%

Rebalancing the 7Twelve Portfolio

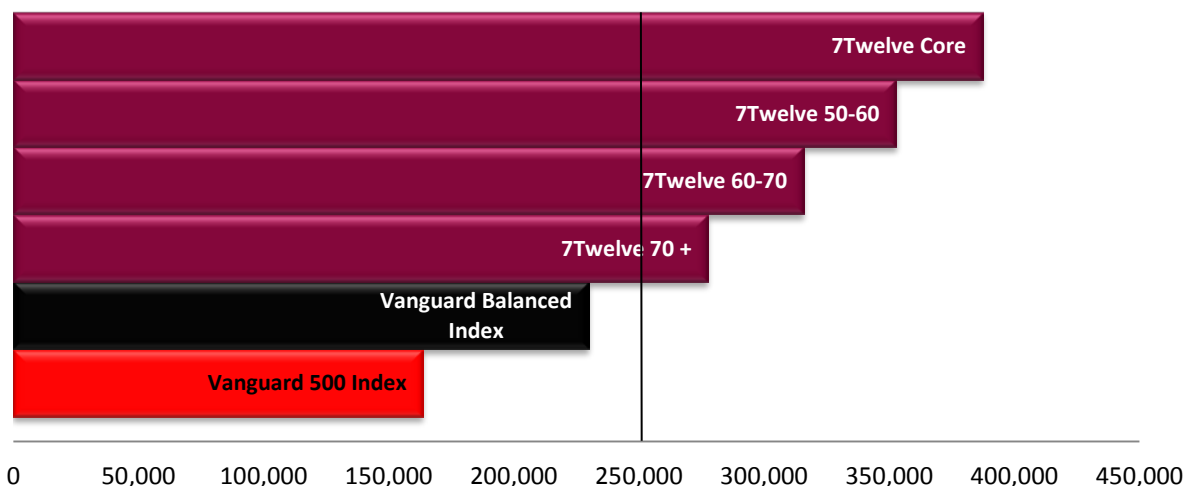
Rebalancing is a vitally important element of the 7Twelve design. Very simply, rebalancing is the process of systematically bringing each of the 12 funds in the 7Twelve portfolio back to their allotted allocation (8.33% in the core 7Twelve model) or the specified allocation if you've built an Age Based 7Twelve portfolio (see Table 3). For example, money is taken out of the funds that performed better in the prior year and deposited into the funds that under-performed in the prior year. That's all that rebalancing is—a straight-forward, non-emotional portfolio management protocol.

There is empirical evidence to support the performance advantage of portfolio rebalancing. Annual rebalancing was beneficial over the 15-year period from 1998-2012. The 15-year annualized return of the core 7Twelve portfolio with annual rebalancing was 7.95% vs. 7.24% without rebalancing—a benefit of 71 bps. The tax efficiency of the 7Twelve portfolio can be enhanced significantly by using new cash inflows to accomplish the needed rebalance. Simply invest sufficient **new** money in the funds that did the worst in the prior year so as to bring up their portfolio allocation to the needed percentage (as outlined in Table 3).

7Twelve as a Retirement Portfolio

The diversified 7Twelve portfolio performs well as an investment portfolio during the retirement years. The graph below illustrates the ending account balances on December 31, 2012 of a retirement account with a starting balance of \$250,000 on January 1, 1998. The first year annual withdrawal was 5% of the balance (or \$12,500). The annual cash withdrawal was increased 3% each year over the 15-year withdrawal period. A total of \$232,486 was withdrawn over the 15 year period. All four 7Twelve models outperformed Vanguard Balanced Index and Vanguard 500 Index—and all four 7Twelve models finished the 15 year period with an ending balance greater than \$250,000 (starting balanced shown by the vertical black line).

Ending Account Balance on December 31, 2012
Assuming Annual Rebalancing



Building a portfolio is only part of the game plan. Set a goal to invest 10% of your income each year.

Craig L. Israelsen, Ph.D. is a consultant and designer of the 7Twelve portfolio (www.7TwelvePortfolio.com) and author of "7Twelve: A Diversified Investment Portfolio with a Plan" by John Wiley & Sons (2010). He is also a principal at Target Date Analytics (www.OnTargetIndex.com). **7Twelve**TM is a trademark owned by Craig L. Israelsen.