FIGURE I.1

Welcome to the Jungle

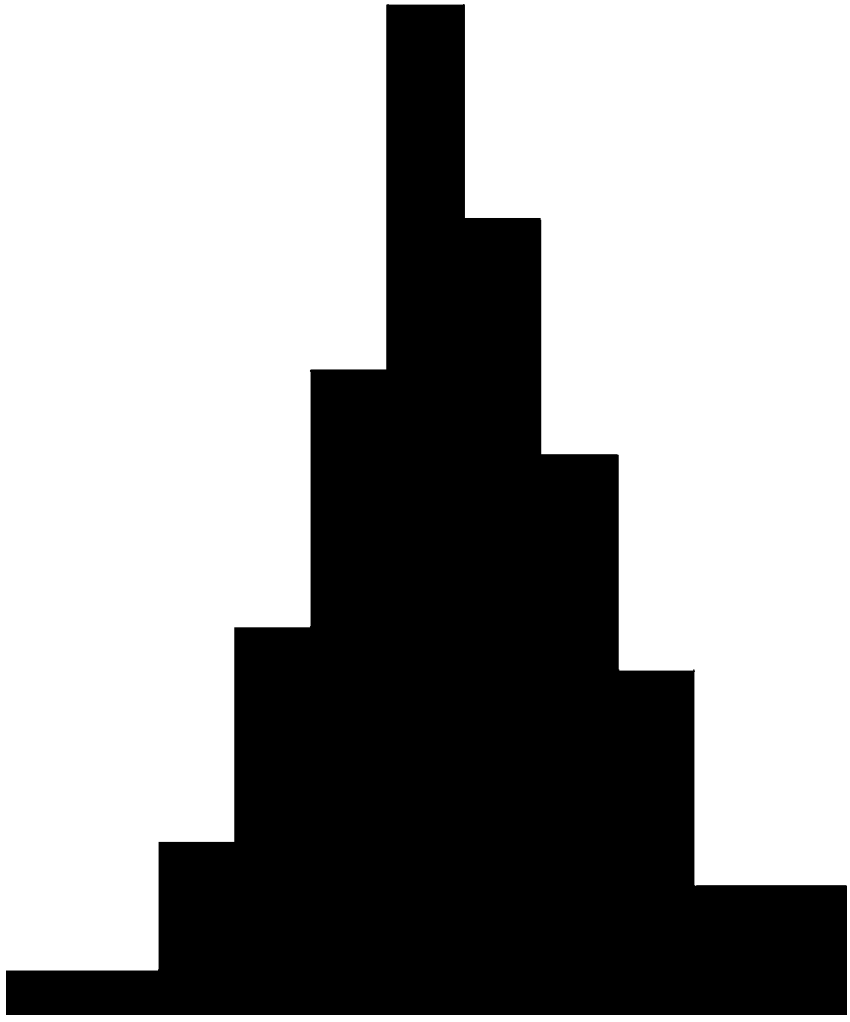


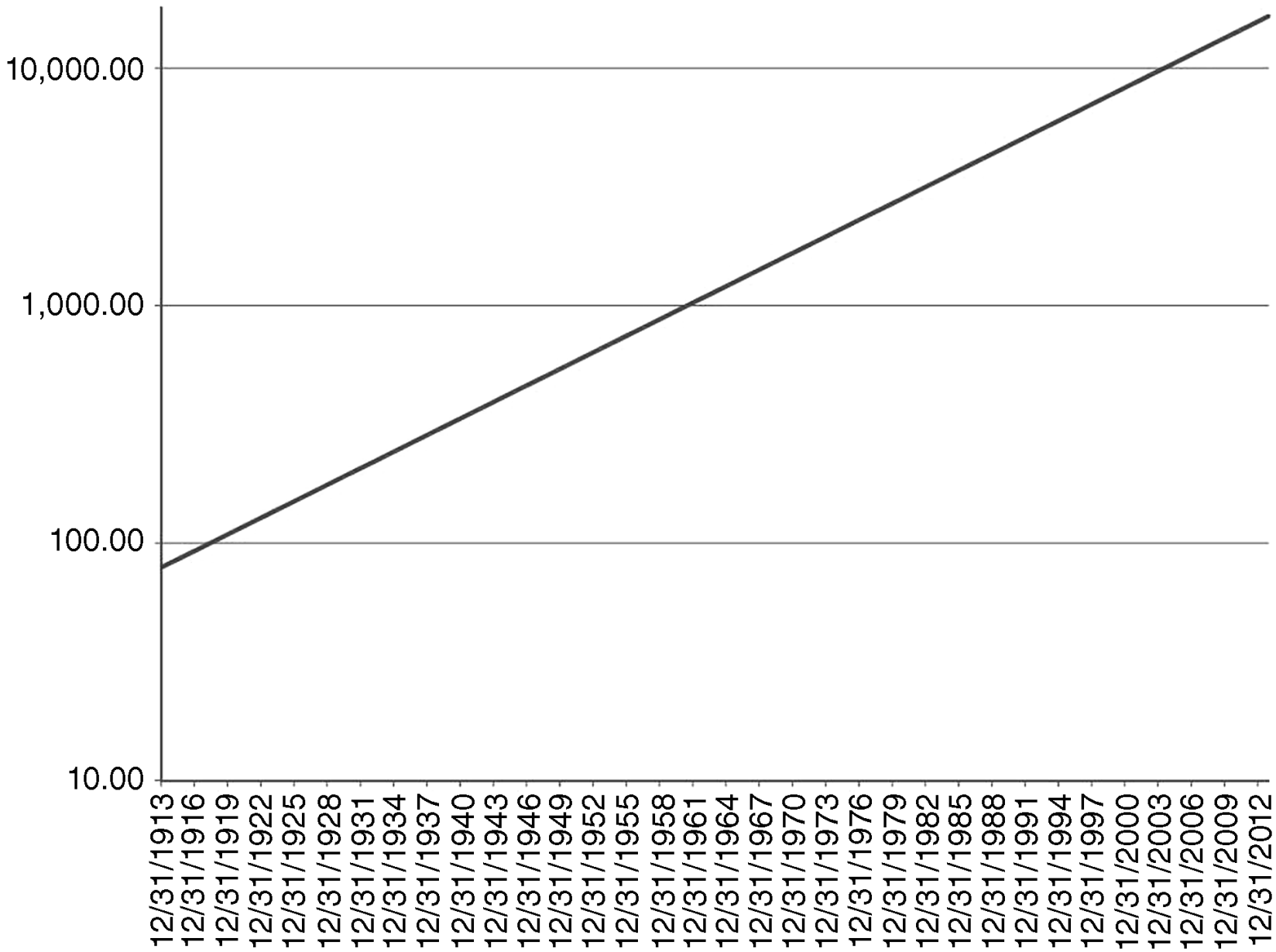
FIGURE I.2

Percentage Change in S&P Market Index by Year

					2011					
					2007					
					2005					
					1994					
					1993					
					1992					
					1987					
					1984					
					1978					
					1970					
					1960	2012				
					1956	2010				
					1948	2006				
					1947	1986				
					1923	1979				
					1916	1972				
					1912	1971				
				2000	1911	1968				
				1990	1906	1965				
				1981	1902	1964				
				1977	1899	1959				
				1969	1896	1952	2013			
				1962	1895	1949	2009			
				1953	1894	1944	2003			
				1946	1891	1926	1999			
				1940	1889	1921	1998			
				1939	1887	1919	1996			
				1934	1881	1918	1983			
				1932	1877	1905	1982			
			2001	1929	1875	1904	1976			
			1973	1914	1874	1898	1967			
			1966	1913	1872	1897	1963	1997		
			1957	1903	1871	1892	1961	1995		
			1941	1890	1870	1886	1951	1991		
			1920	1887	1869	1878	1943	1989		
			1917	1883	1868	1864	1942	1985		
			1910	1882	1867	1858	1925	1980		
			1893	1876	1866	1855	1924	1975		
			1884	1861	1865	1850	1922	1955		
			1873	1860	1859	1849	1915	1950		
		2002	1854	1853	1856	1848	1909	1945		
		1974	1841	1851	1844	1847	1901	1938	1958	1954
		1930	1837	1845	1842	1838	1900	1936	1935	1933
		1907	1831	1835	1840	1834	1880	1927	1928	1885
	2008	1857	1828	1833	1836	1832	1852	1908	1963	1879
1931	1937	1839	1825	1827	1826	1829	1846	1830	1943	1862
–50	–40	–30	–20	–10	0–10	20	30	40	50	60

Sources: Graph by Creative Planning, Inc. Re-created from graph by Sumner 2008 and updated with data from S&P Dow Jones Indices, LLC 2014.

FIGURE 1.1



Source: Data from S&P Dow Jones Indices, LLC 2014.

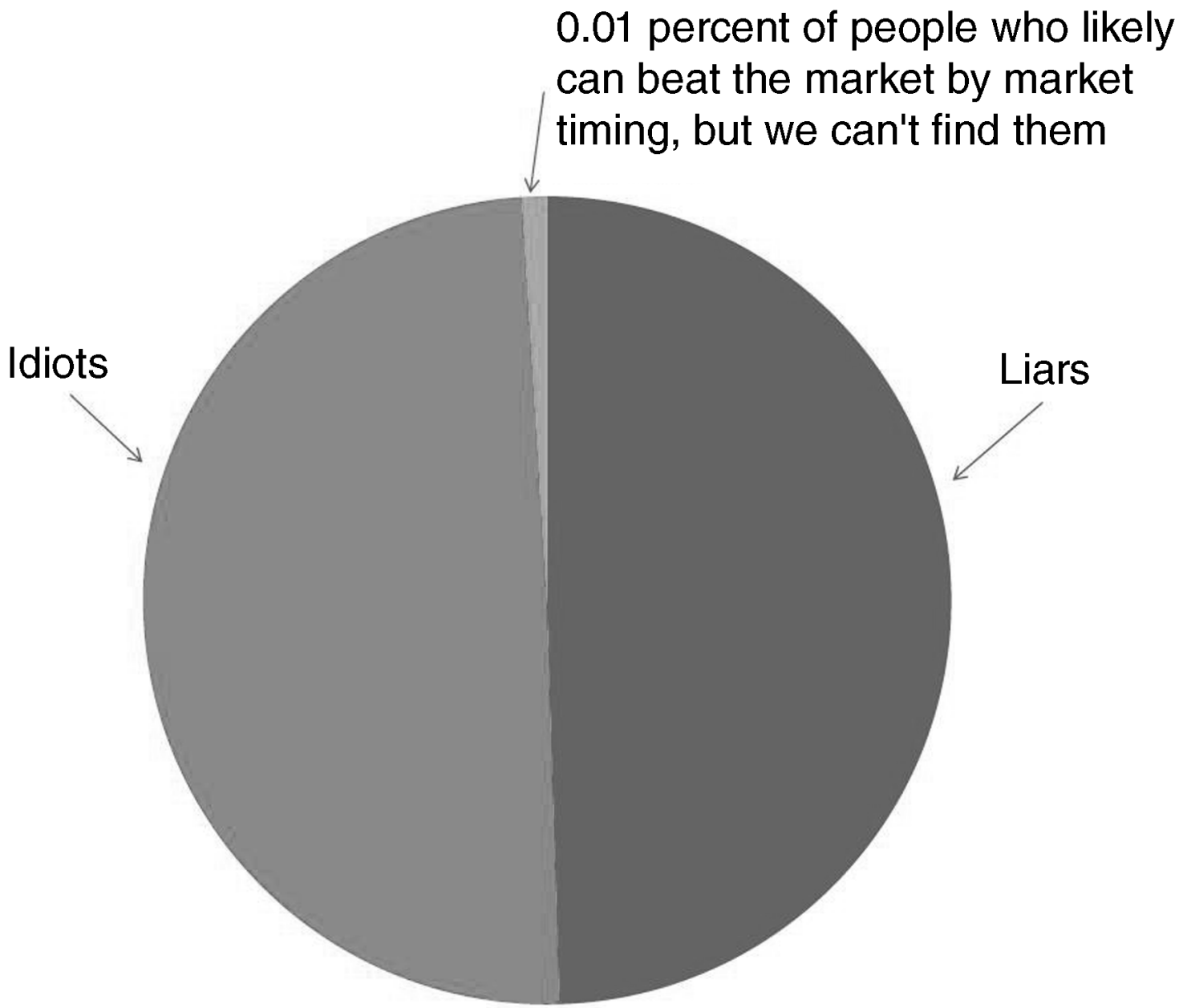
FIGURE 1.2

Dow Jones Industrial Average, Nonlinear Return

Source: Data from S&P Dow Jones Indices, LLC 2014.

FIGURE 1.3

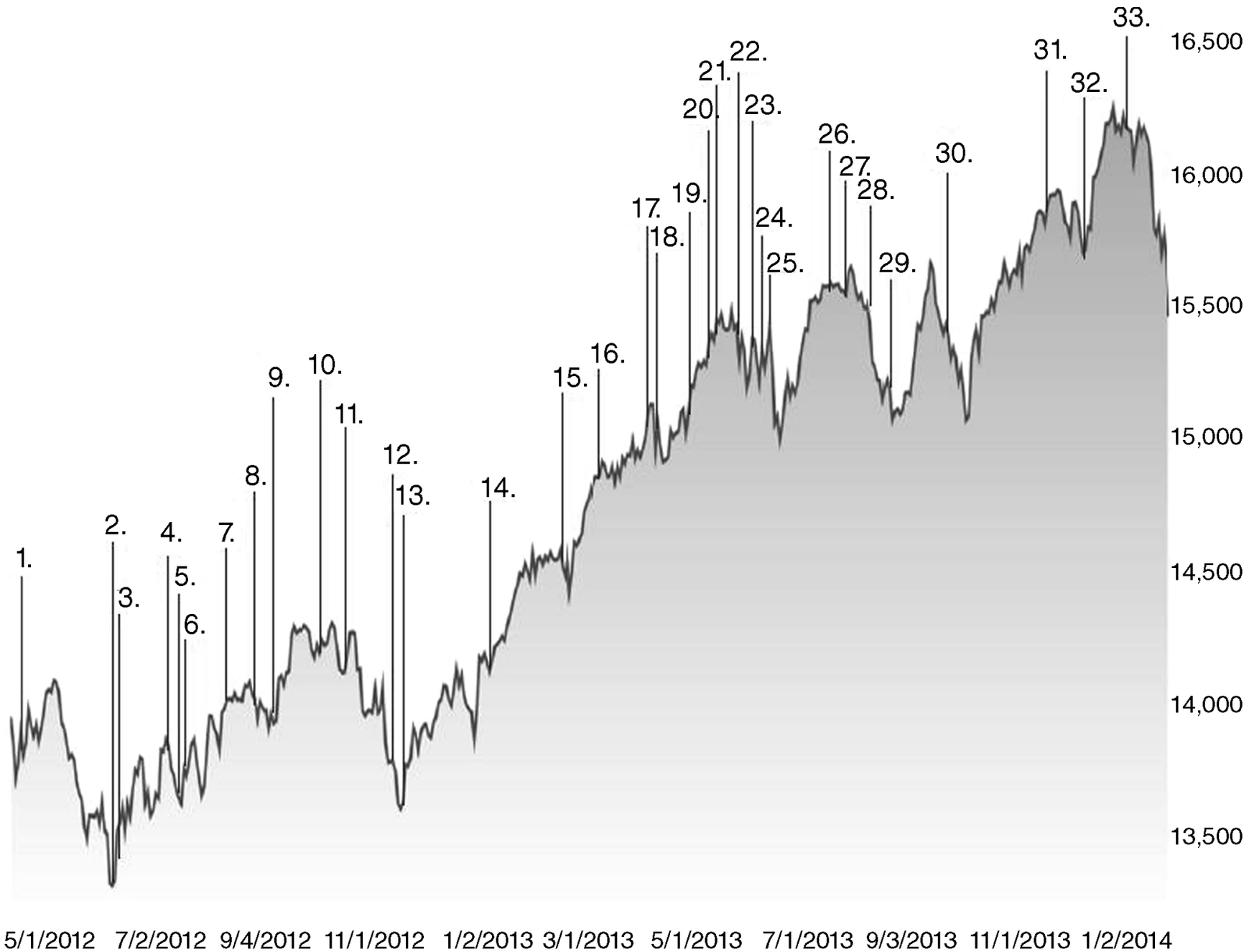
Market Timer Camps



Source: Graph by Creative Planning, Inc.

FIGURE 1.4

Market Prognasticators' Correction Predictions



Source: Graph by Creative Planning, Inc.

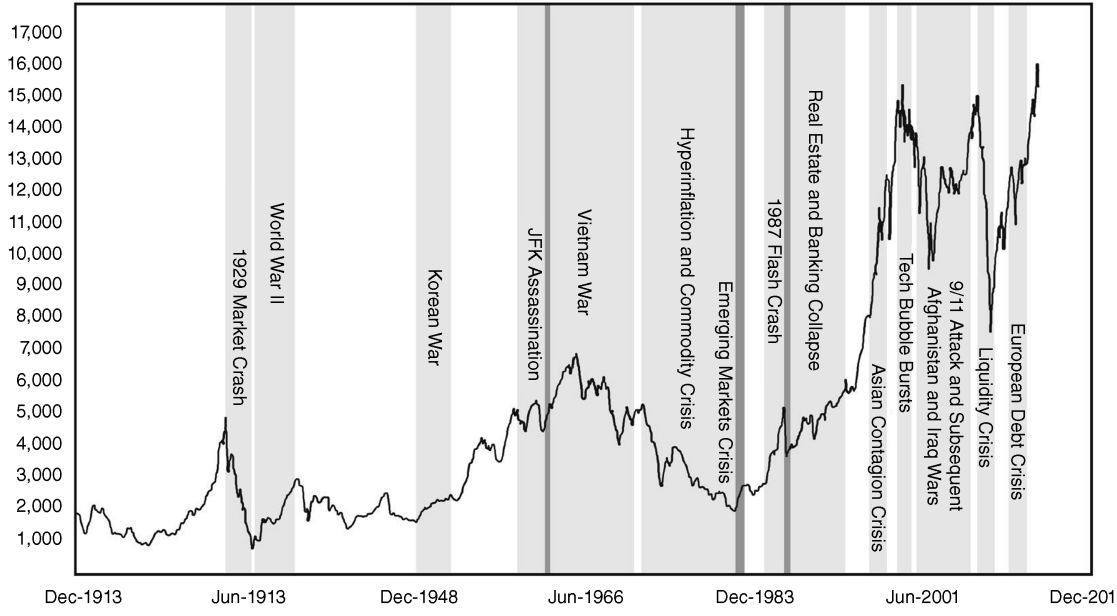
FIGURE 1.5

Bear Markets: How Often, How Long, and How Severe?

Bull Market Top	Bear Market Bottom	Number of Days Duration	% Decline in S&P 500
05/29/1946	05/17/1947	353	–23.2%
04/06/1956	10/22/1957	564	–19.4%
12/13/1961	06/26/1962	195	–27.1%
02/09/1966	10/07/1966	240	–25.2%
12/03/1968	05/26/1970	539	–35.9%
01/11/1973	12/06/1974	694	–45.1%
09/21/1976	02/28/1978	525	–26.9%
04/27/1981	08/12/1982	472	–24.1%
08/25/1987	12/04/1987	101	–33.5%
07/16/1990	10/11/1990	87	–21.2%
07/17/1998	08/31/1998	45	–19.3%
03/24/2000	09/21/2001	547	–36.8%
01/04/2002	07/23/2002	210	–32.0%
10/11/2007	03/09/2009	512	–57.6%

FIGURE 1.6

Dow Jones Industrial Average and Bear Markets



Source: Graph by Creative Planning, Inc.

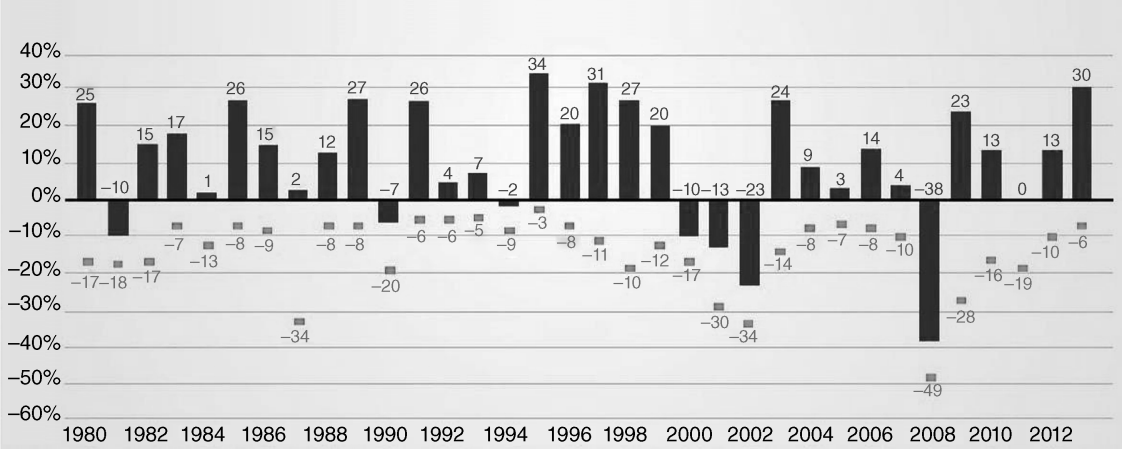
FIGURE 1.7

Bear Markets: How Quickly They "Turn"

Bear Market Bottom	Next 12 Months (S&P 500)
6/13/1949	42.07%
10/22/1957	31.02%
6/26/1962	32.66%
5/26/1970	43.73%
10/3/1974	37.96%
8/12/1982	59.4%
12/4/1987	22.40%
9/21/2001	–12.50%
7/23/2002	17.94%
3/9/2009	69.49%

FIGURE 1.8

S&P 500 Intrayear Declines versus Calendar-Year Returns



Sources: Data from Standard & Poor's, FactSet, J.P. Morgan Asset Management. Returns are based on price index only and do not include dividends. Intrayear drops refer to the largest market drops from a peak to a trough during the year. Data as of 12/31/2013.

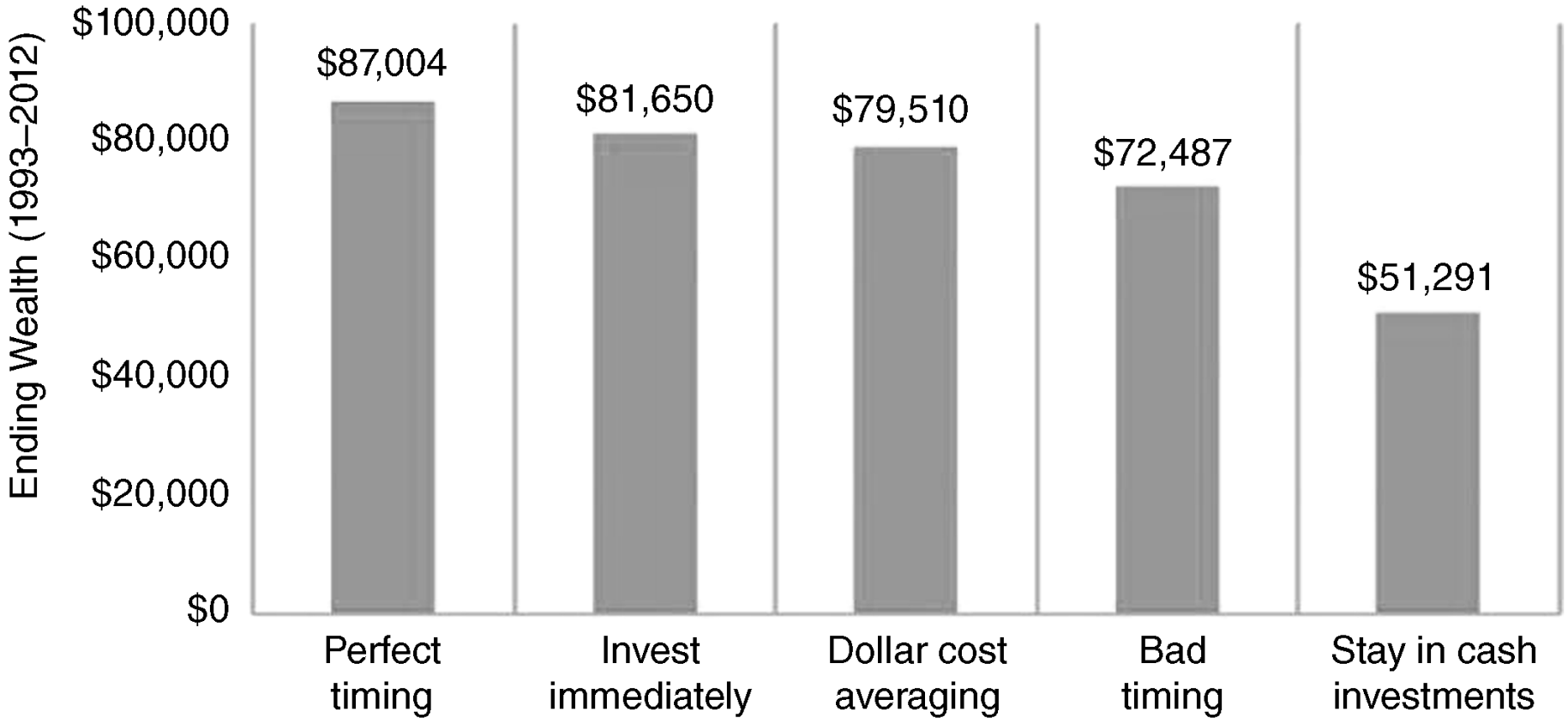
FIGURE 1.9

When the Consumer Gives Up

Consumer Confidence <60%	Next 12 Months (S&P 500)
1974	+37%
1980	+32%
1990	+30%
2008	+60%

FIGURE 1.10

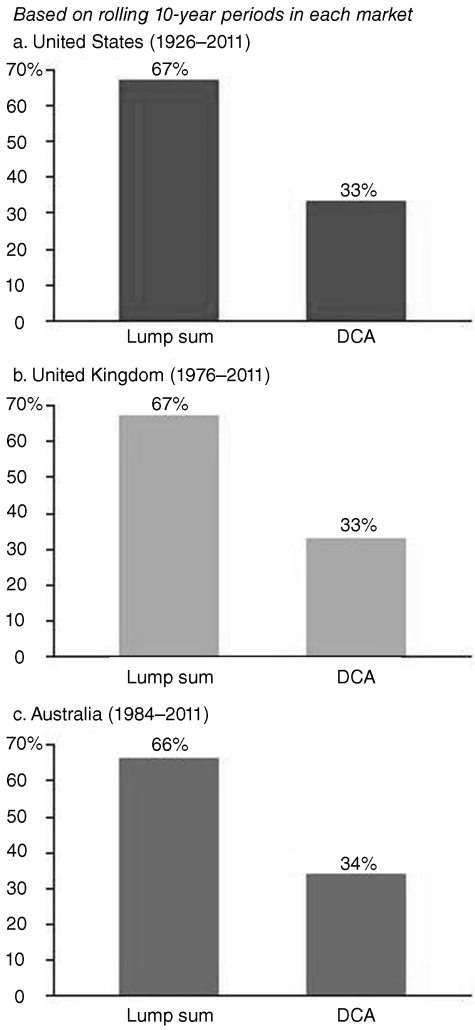
Even Bad Market Timing Trumps Inertia



Source: Graph from Riepe 2013.

FIGURE 1.11

Relative Historical Probability of Outperformance Using 12-Month DCA and a 60 Percent Stock/40 Percent Bond Portfolio

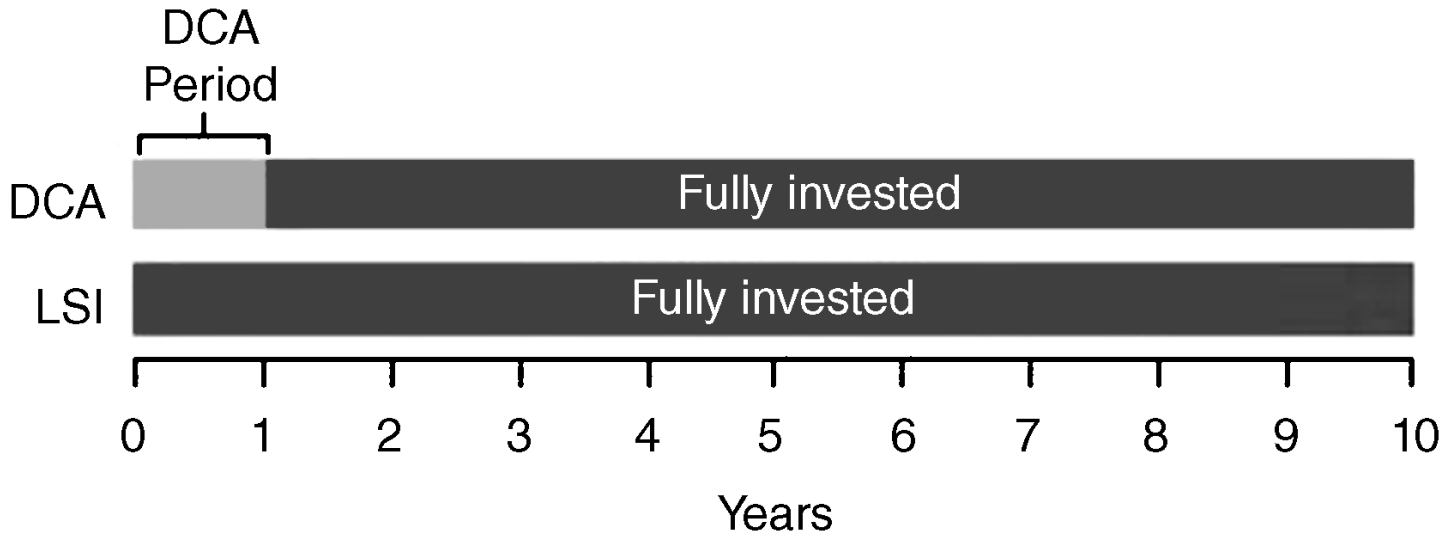


Note: Each portfolio consists of a 60 percent allocation to the local equity market and a 40 percent allocation to the local bond market.

Source: Graph from Shtekhman, Tasopoulos, and Wimmer 2012, 3. Vanguard calculations based on benchmark data.

FIGURE 1.12

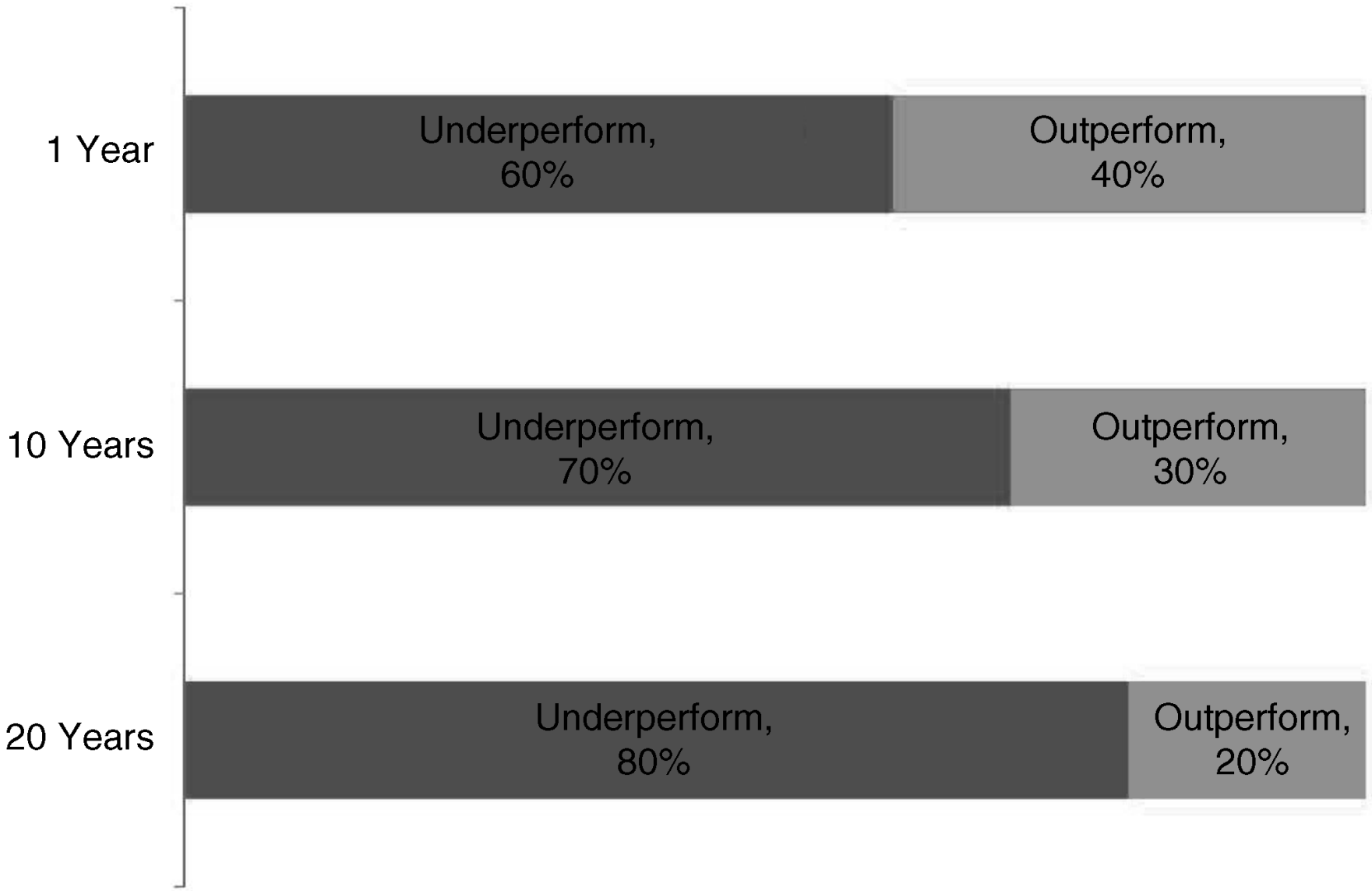
Dollar Cost Averaging Example



Source: Graph from Shtekhman, Tasopoulos, and Wimmer 2012, 2.

FIGURE 2.1

Mutual Fund Manager Performance vs. Benchmark

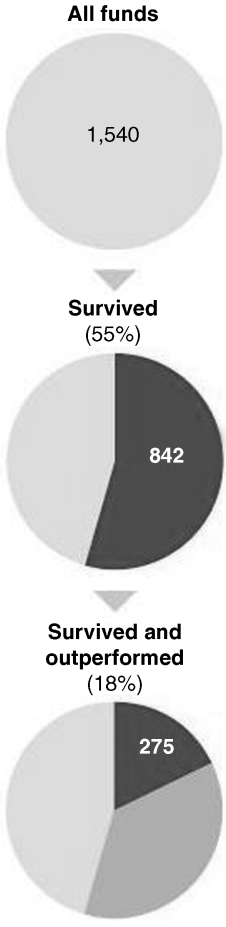


Source: Data from Ellis 2012.

FIGURE 2.2

A Small Portion of Active Funds Survived *and* Outperformed Over 15 Years

The fate of 1,540 actively managed U.S. equity funds, 1998–2012



Source: Graph from Wimmer, Chhabra, and Wallick 2013, 3. Vanguard calculations using data from Morningstar.

FIGURE 2.3

Annualized 36-Month Fund Performance Relative to Benchmark

Source: Graph from The Vanguard Group, Inc. 2013b. Data on cash flows, fund returns, and ratings were provided by Morningstar. Index data to compute relative excess returns were provided by Thomson Reuters Datastream.

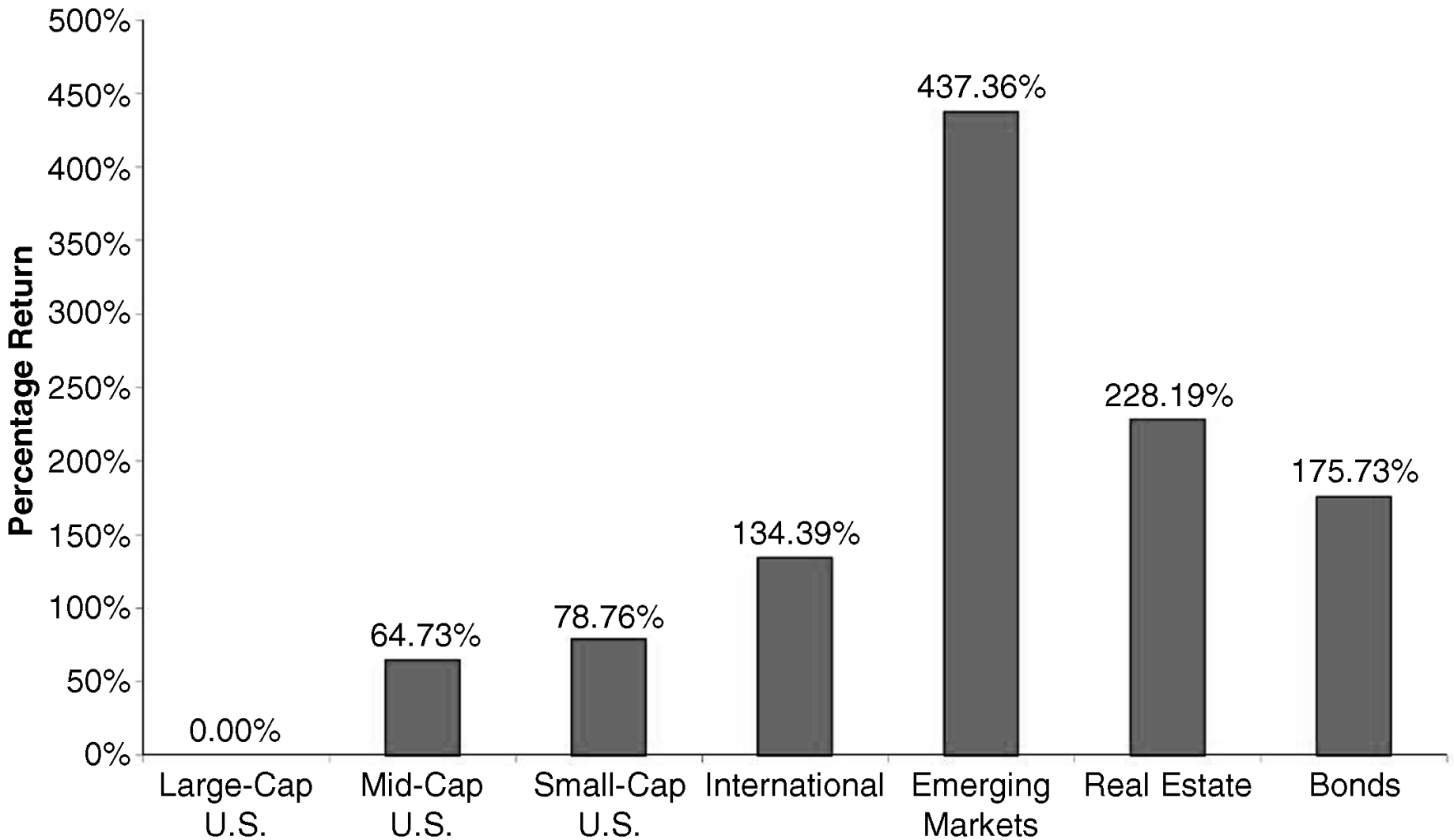
FIGURE 2.4

Myth Dispelled

Percent of Active Funds Outperformed by Benchmarks in Bear Markets		
Fund Category	**2008**	**2000 to 2002**
All Large-Cap Funds	54.3	53.5
All Mid-Cap Funds	74.7	77.3
All Small-Cap Funds	83.8	71.6

FIGURE 2.5

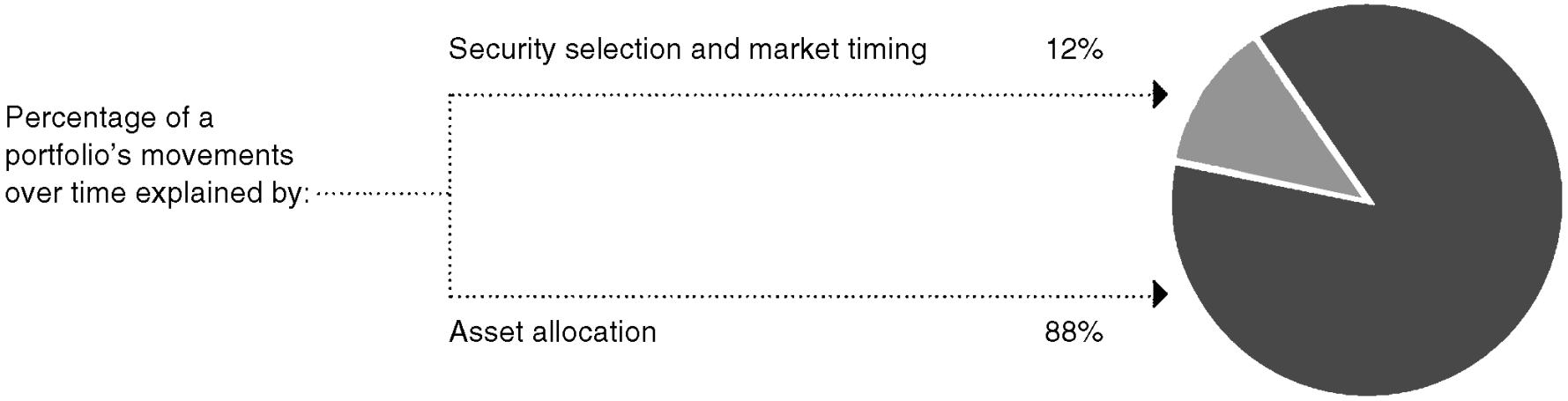
10-Year Index Returns, January 2001–December 2010



Sources: Data from Standard & Poors, MSCI, Barclay's Capital, Google Finance, and Dow Jones.

FIGURE 3.1

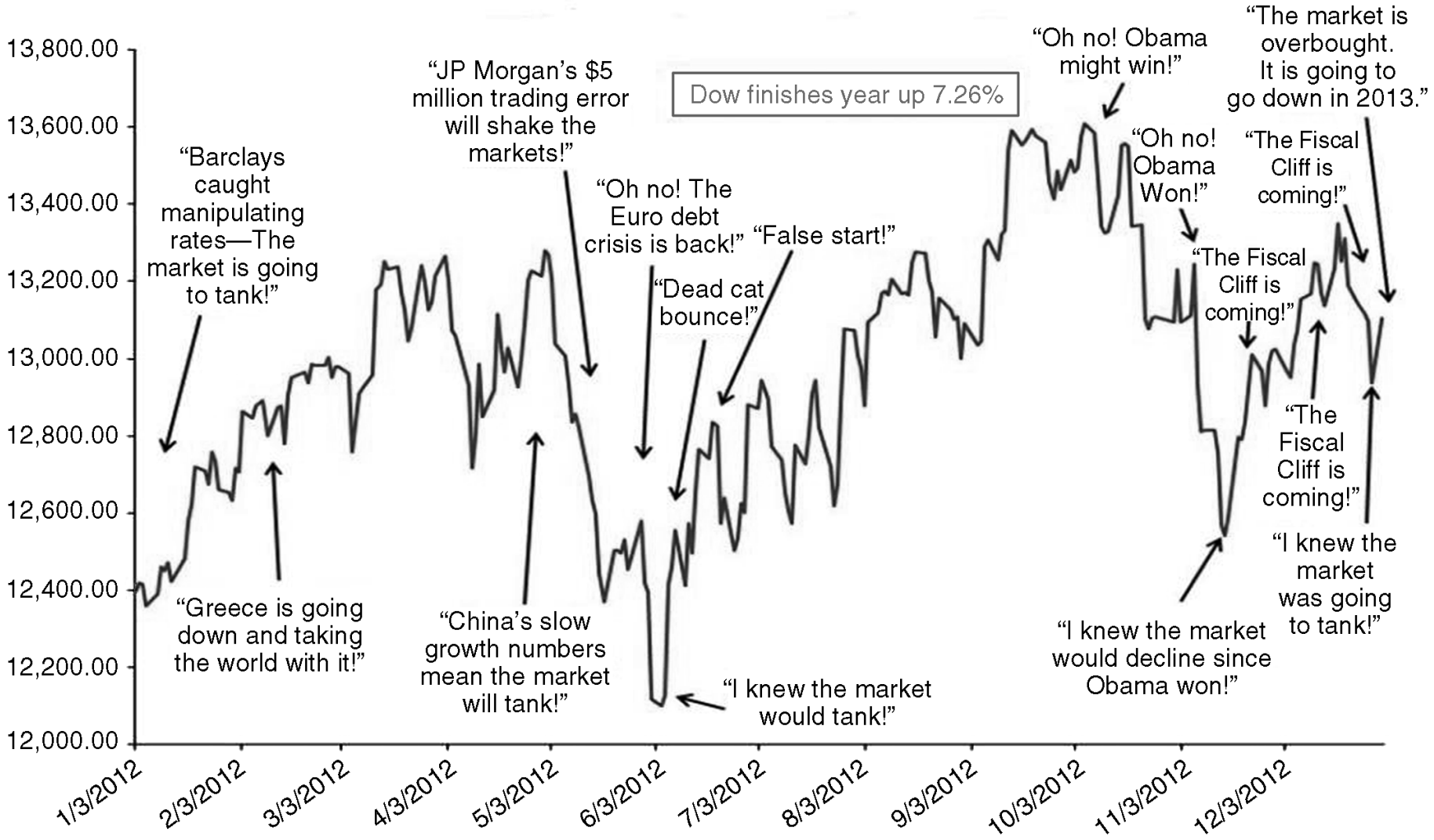
Investment Outcomes Are Largely Determined by the Long-Term Mixture of Assets in Portfolio



Source: Graph from The Vanguard Group, Inc. 2013b, 9. Vanguard calculations using data from Morningstar.

FIGURE 4.1

Dow Jones Industrial Average: 1/3/2012–12/31/2012



Sources: Graph by Creative Planning, Inc. Data from Yahoo! Finance.

FIGURE 4.2

Mutual Fund Cash Flows Often Follow Performance

	Date	Equity Weighting	Investor Cash Flows over the Prior Two Years (in millions)		Stock Market Performance (cumulative)	
			Stock Funds	Bond Funds	Prior Two Years	Subsequent Two Years
Early in 1990s bull market	1/31/1993	34%	—	—	—	—
Bull market peak	3/31/2000	62	$393,225	$5,100	41%	–23%
Bear market bottom	2/28/2003	40	71,815	221,475	–29	53
Bull market peak	10/31/2007	62	424,193	173,907	34	–29
Bear market bottom	2/28/2009	37	–49,942*	83,921*	–51*	94

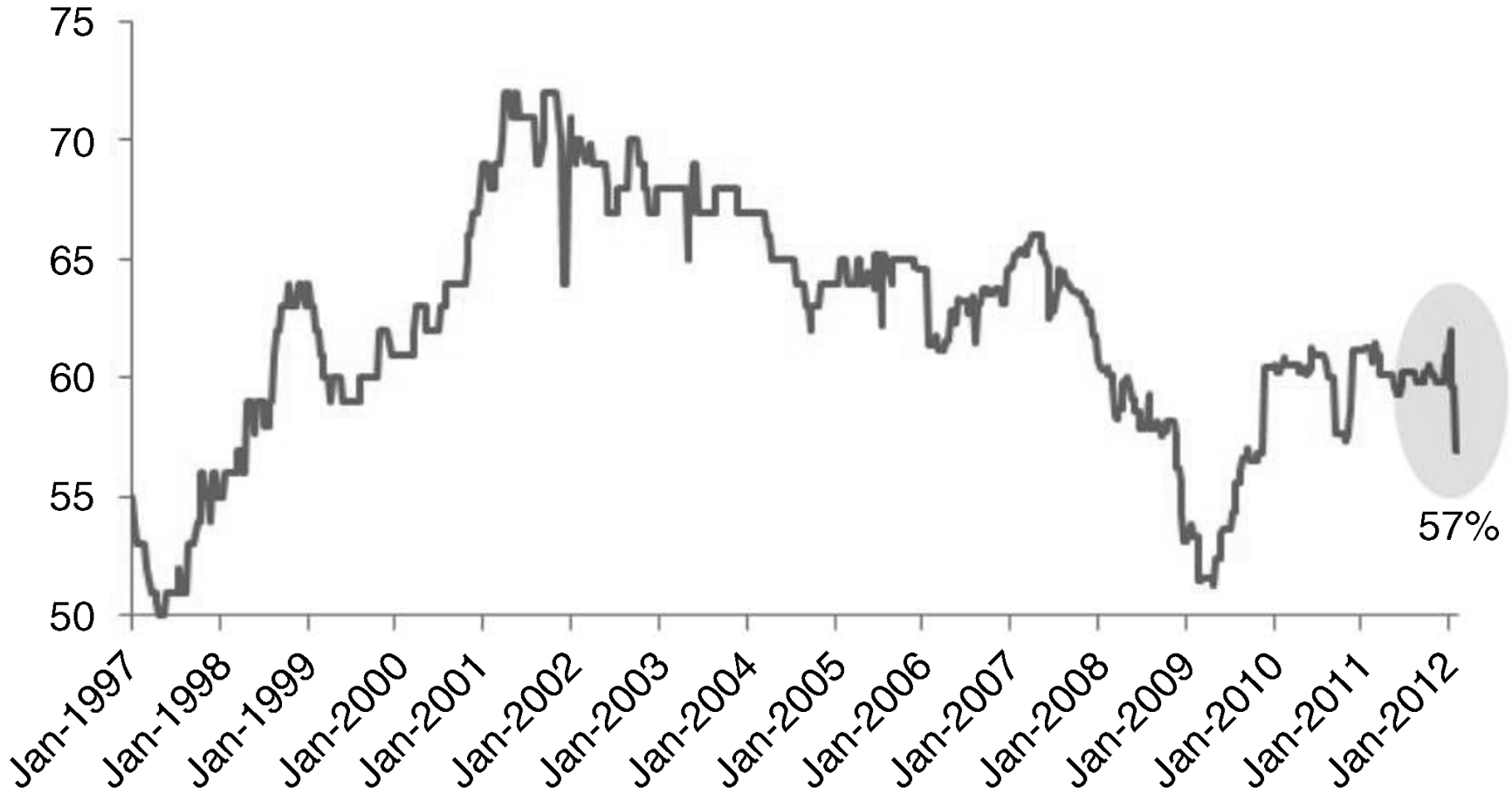
*Reflects cash flows starting when the bear market began, rather than for the full 24 months.

Notes: Equity allocations reflect the cumulative assets under management for all U.S.-domiciled open-ended mutual funds and ETFs. Cash flows represent net cash moving in or out of stock and bond funds. Market returns are based on the MSCI USA Index through May 1994 and the MSCI USA Investable Market Index thereafter.

Sources: Graph from The Vanguard Group, Inc. 2013b, 6. Morningstar for equity allocations and cash-flow data; Thompson Reuters Datastream for market returns.

FIGURE 4.3

Wall Street Strategists' Recommended Allocation to Equities

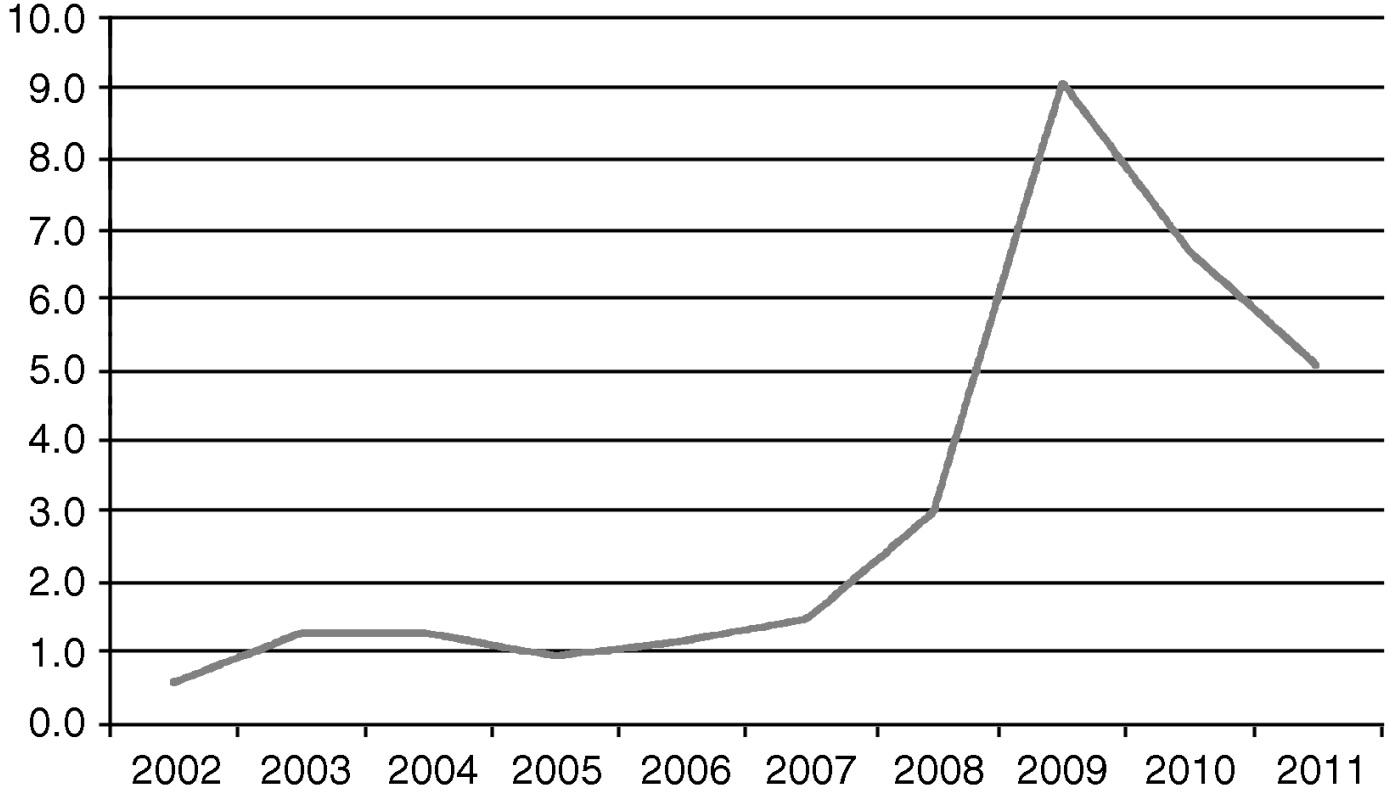


From Bloomberg's weekly strategist survey.

Source: Graph from Bespoke Investment Group 2012.

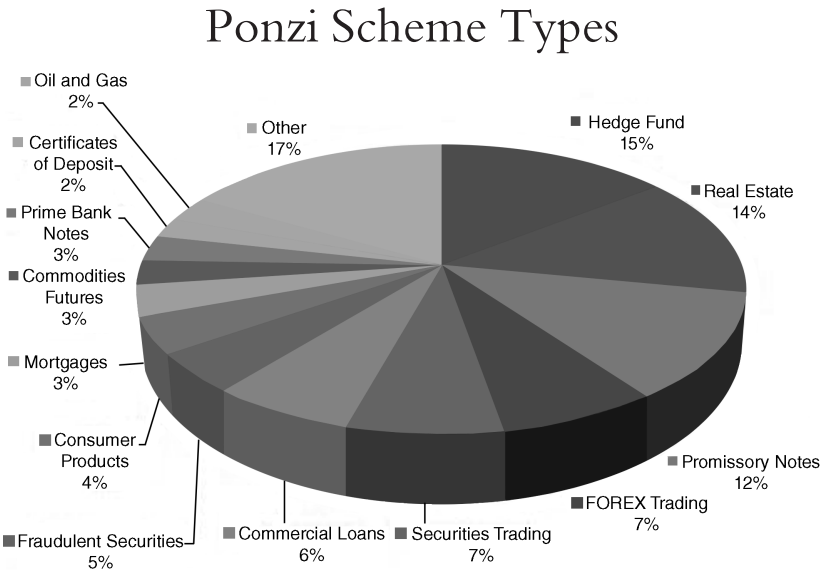
FIGURE 5.1

Monthly Ponzi Rate



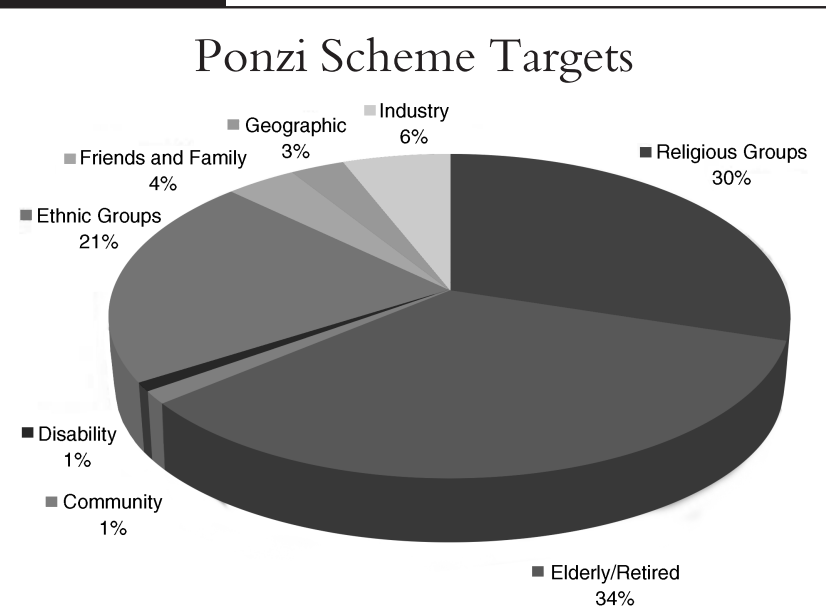
Source: Graph from Marquet 2011, 5.

FIGURE 5.2



Source: Graph from Marquet 2011, 14.

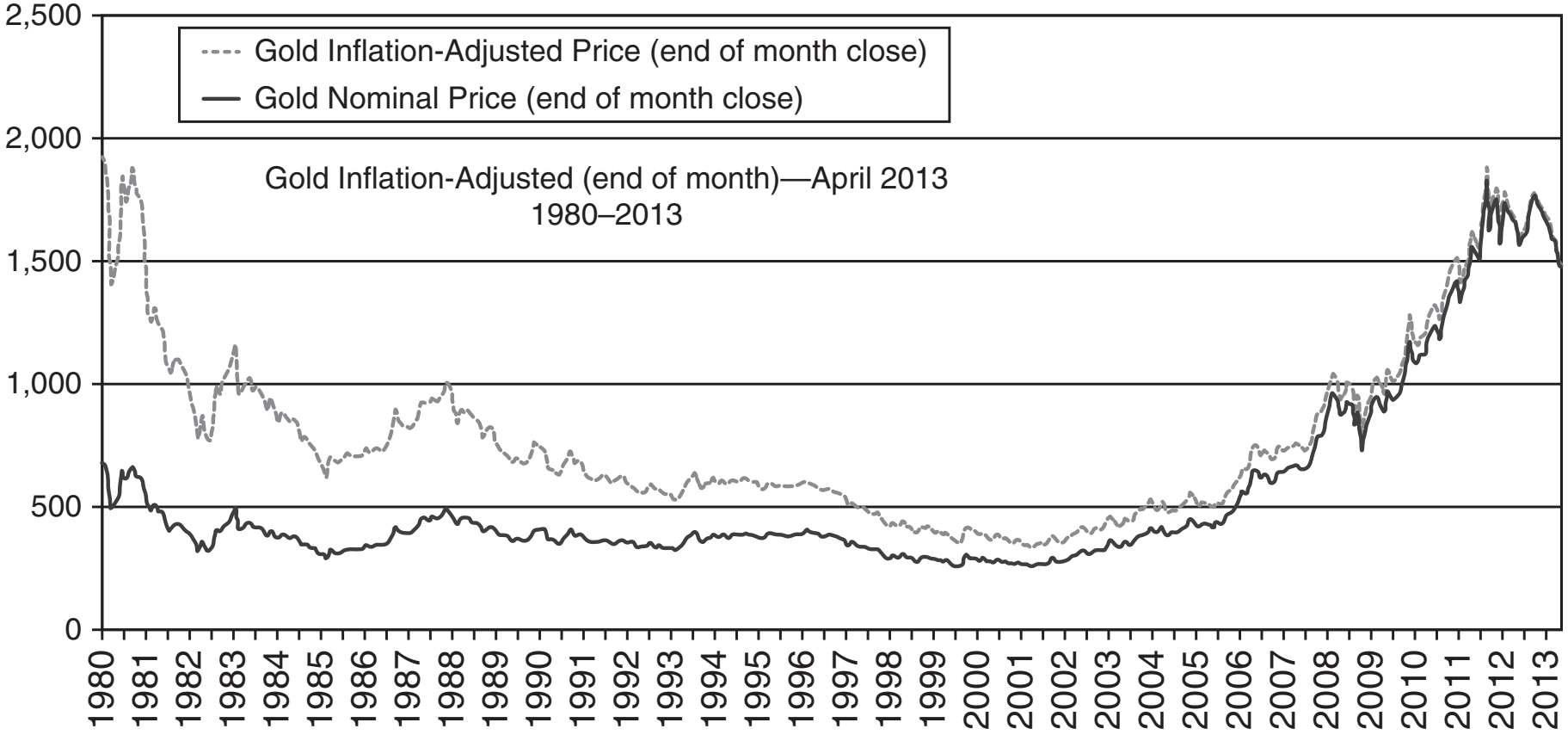
FIGURE 5.3



Source: Graph from Marquet 2011, 18.

FIGURE 6.1

Gold Inflation-Adjusted Chart



Source: Graph from AboutInflation.com 2013.

FIGURE 6.2

Historical Returns

Asset Allocation	1926–2012 Nominal Average Annual Returns
100% cash investments	3.60%
100% bonds	5.54%
80% bonds, 20% stocks	6.74%
70% bonds, 30% stocks	7.28%
60% bonds, 40% stocks	7.79%
50% bonds, 50% stocks	8.25%
40% bonds, 60% stocks	8.68%
30% bonds, 70% stocks	9.07%
20% bonds, 80% stocks	9.41%
100% stocks	9.97%

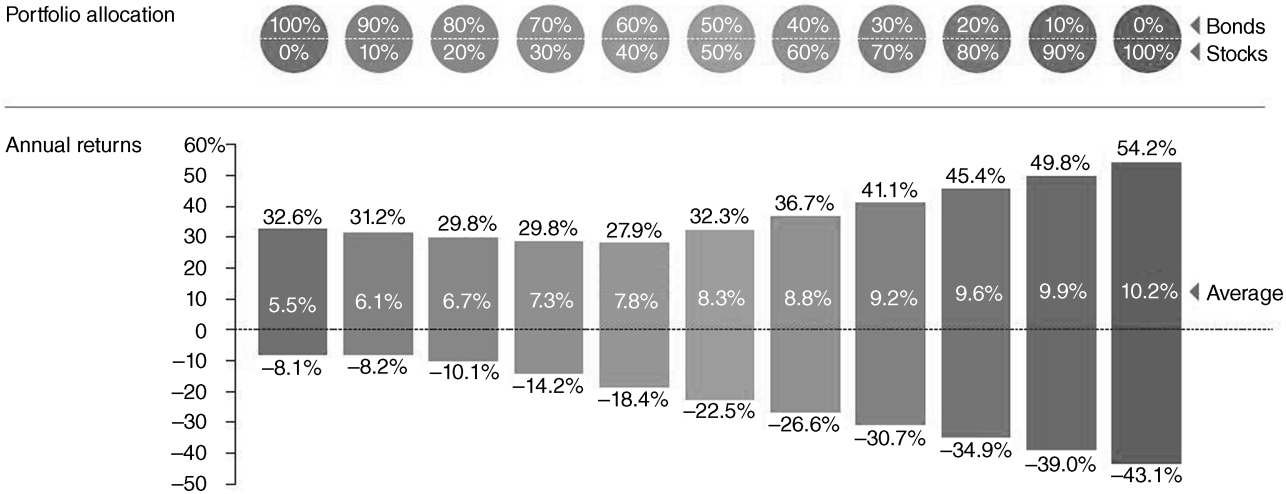
Note: Stocks are represented by the Standard & Poor's 90 Index from 1926 to March 3, 1957; the S&P 500 Index from March 4, 1957, through 1974; the Wilshire 500 Index from 1975 through April 22, 2005; and the MSCI U.S. Broad Market Index thereafter. Bonds are represented by the S&P High Grade Corporate Index from 1926 to 1968; the Citigroup High Grade Index from 1969 to 1972; the Barclays U.S. Long Credit AA Index from 1973 to 1975, and the Barclays U.S. Aggregate Bond Index thereafter. Data are through December 31, 2013.

Source: Data from The Vanguard Group, Inc. 2013b, 10.

FIGURE 6.3

The Mixture of Assets Defines the Spectrum of Returns

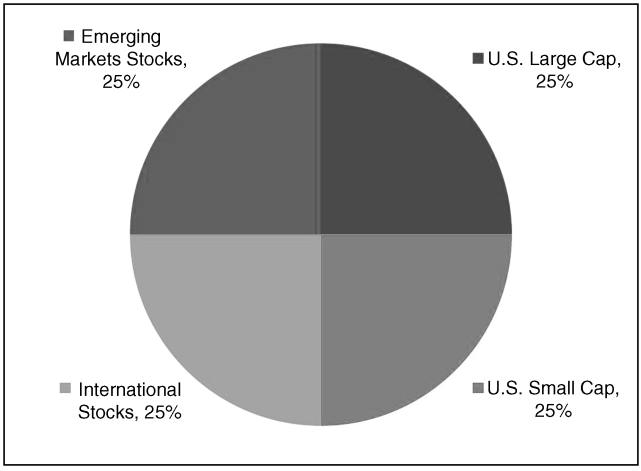
Best, worst, and average returns for various stock/bond allocations, 1926–2013



Source: Graph from The Vanguard Group, Inc. 2013b, p. 10.

FIGURE 6.4

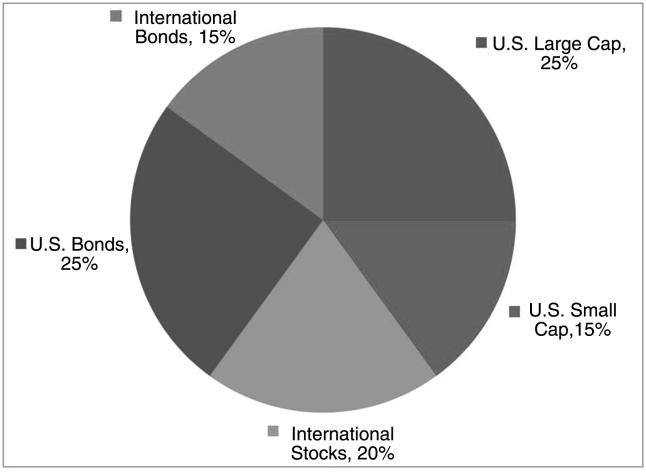
"I Want to Beat the Market" Portfolio



Source: Graph by Creative Planning, Inc.

FIGURE 6.5

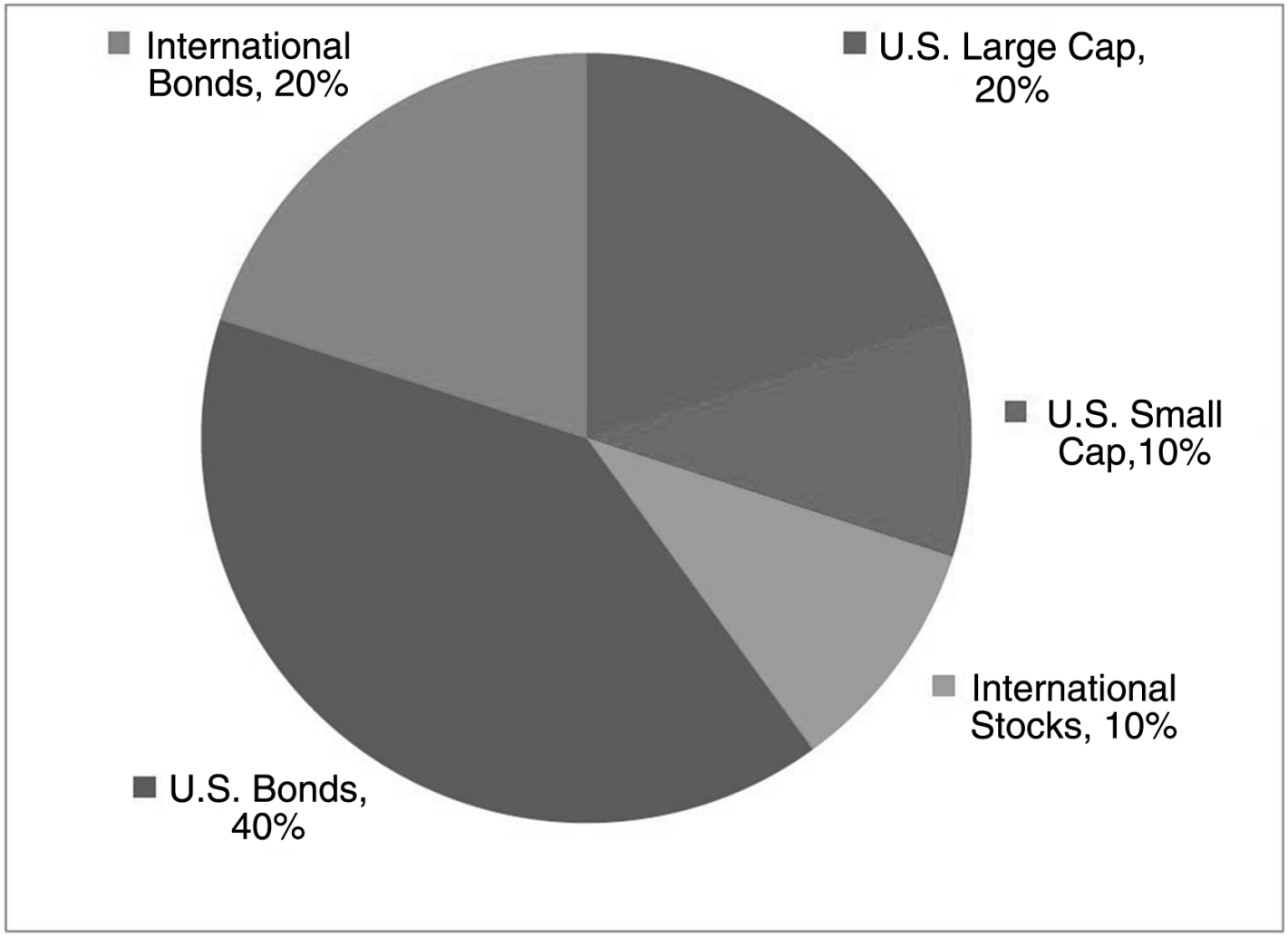
"I Need 7 Percent to Hit My Long-Term Goal" Portfolio



Source: Graph by Creative Planning, Inc.

FIGURE 6.6

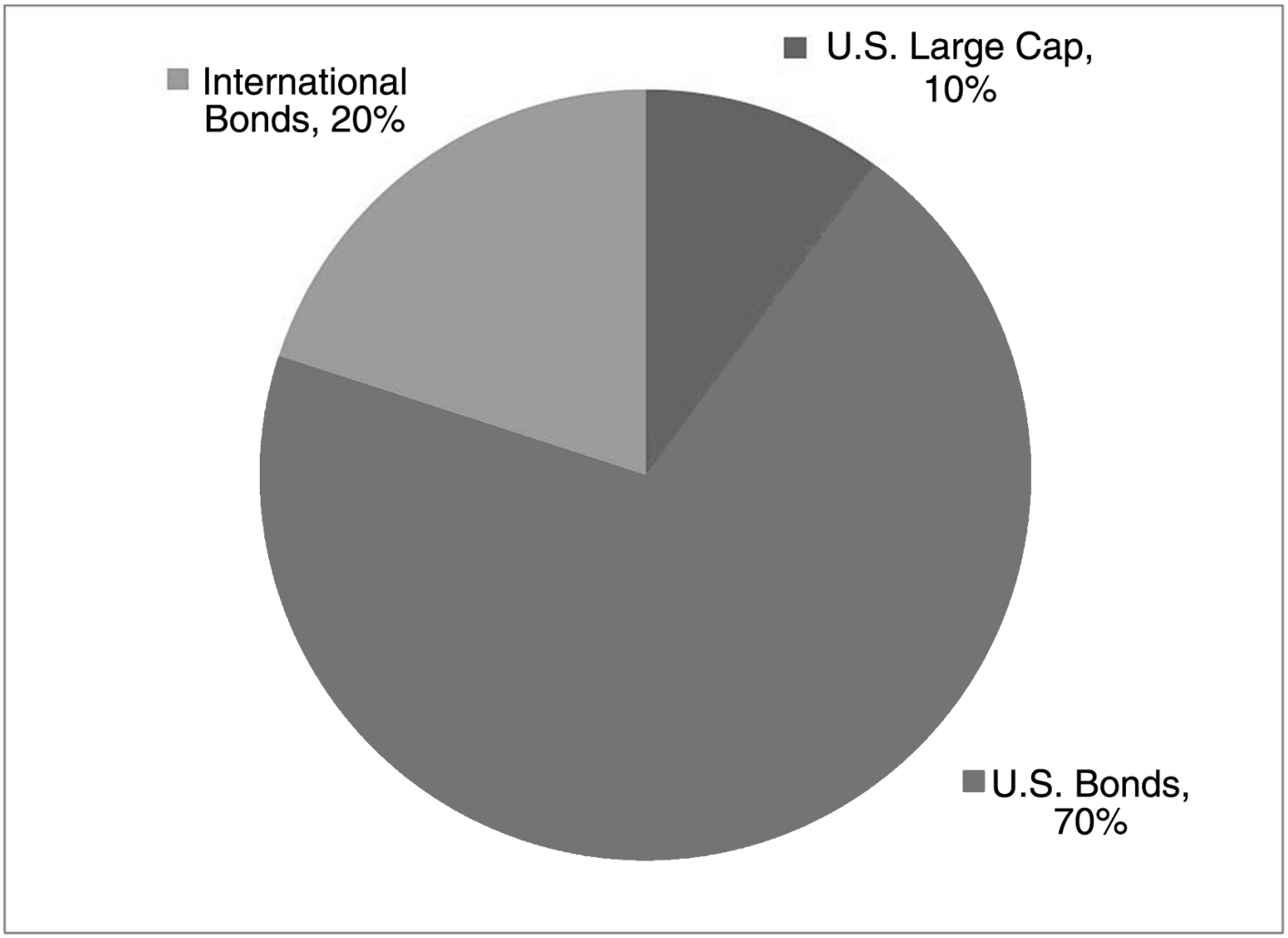
"Get Me What I Need for the Rest of My Life with the Least Volatility Possible" Portfolio



Source: Graph by Creative Planning, Inc.

FIGURE 6.7

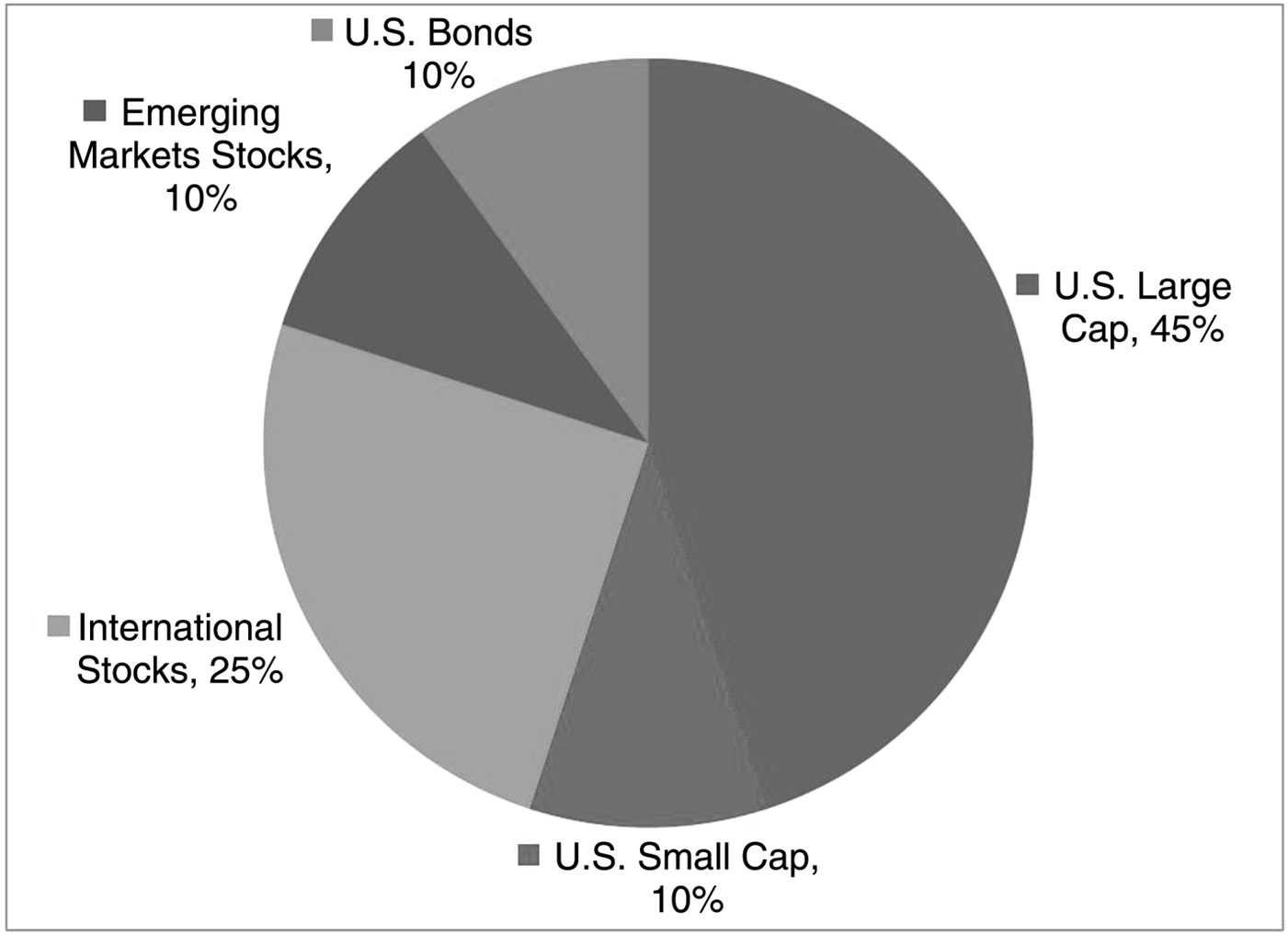
"I Have More Money Than I Will Ever Need and I Want It to Grow with Minimal Volatility" Portfolio



Source: Graph by Creative Planning, Inc.

FIGURE 6.8

"I Have More Money Than I Will Ever Need, Volatility Doesn't Bother Me, and I Want It to Grow Along with the Market" Portfolio



Source: Graph by Creative Planning, Inc.