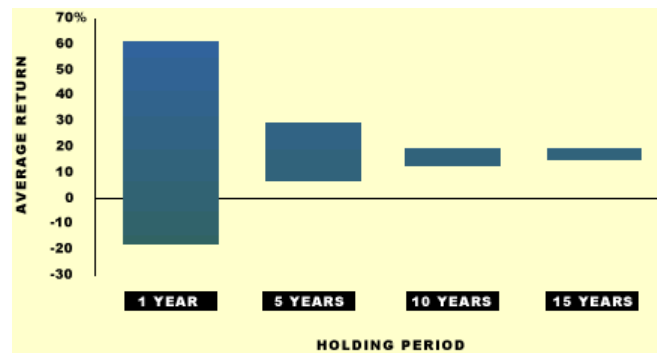


Introduction

The scenario given is as follows: I just inherited \$100,000 with the stipulation that I invest it for a period of 15 years before I am allowed to withdraw the money. This paper develops and describes the investment strategy I would follow. Be forewarned: there are no “get-rich-quick” nuggets buried within. Research for this assignment was obtained primarily from the CSFBdirect, E*Trade, Motley Fool, Yahoo and SmartMoney web sites.

Level of Risk

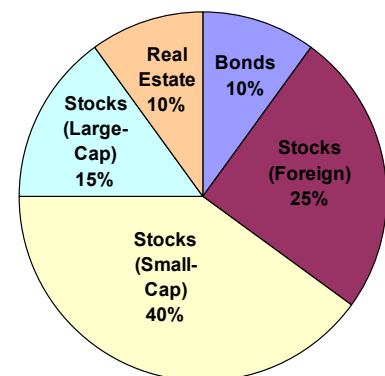
The level of risk tolerance is the biggest personal factor in determining an investment strategy. However, there are two objective characteristics about this scenario that immediately suggest a moderate-to-high level of risk is warranted. The first characteristic is this is found money; I did not have it prior to the assignment. My existing investments are all gauged to my tolerance for risk based on the assets I have; this money is free of such constraints because I cannot be worse off regardless of the investment strategy chosen. The second characteristic is the reasonably long investment horizon of 15 years which stabilizes much of the short-term volatility in aggressive investments and allows me to track the long-term market trend. Consider the chart to the right (from Phoenix Investment Counsel).



This illustrates historical data from the S&P 500 composite stock index from 1978 to 1998. Returns are compound annual average returns for rolling periods of 1, 5, 10 and 15 years. What is obvious is the amount of volatility someone with a short investment horizon faces and how a longer investment horizon reduces this. Volatility is proportional to the risk in most investments.

Asset Allocation

Even though I am willing to follow a more aggressive investment strategy, I still want to safeguard my money and reduce exposure to any single event. The first step in reducing overall risk is through asset allocation across multiple categories of investments that react differently to economic forces.



The chart at right shows the asset break down for my investment strategy. These asset categories and the rationale for including them are discussed in the following table.

Category	%	Description and Rationale
Large-Cap Stocks	15%	These are companies with market capitalizations over \$5B. In general, these tend to be mature companies with predictable earnings and less price volatility. Many pay dividends which provides income to compensate for the lower opportunities for capital appreciation. Overall returns are, however, less than smaller fast-growth companies when appreciation is taken into account. Indexes that track these stocks include the DJIA

Category	%	Description and Rationale
		and S&P 500. These stocks are included to provide stability and income.
Small-Cap Stocks	40%	Rapid growth is the appeal of these small company (typically less than \$1B market capitalization) stocks. They are volatile with small (or no) earnings, but are frequently poised for expansion. Indexes that track these stocks include the Russell 2000 and the S&P 600. These stocks are included to provide long-term capital appreciation.
Foreign Stocks	25%	International markets—and the stocks that trade on them—are frequently less mature than those in the US. This translates into more opportunities for dramatic growth than in the US market and also more volatility. Risks are compounded by political instability and currency changes. These investments included to provide capital appreciation and to balance exposure to any single market.
Bonds	10%	Bonds—particularly government bonds—provide one of the most stable and predictable investments available. While stocks have averaged about 11% annual growth over the last 70 years, bonds have provided less than 6%. In a bear market (such 2000-2001), this is a good return in comparison to the 20%+ loss most stocks experienced. In general bonds rise in response to turmoil in the markets that affects stocks. They are therefore included to counter economic conditions that affect stocks and to provide income and asset preservation. Only treasuries and high-grade (AAA/aaa) corporate are included.
Real Estate	10%	Real estate provides volatility in the range between stocks and bonds, an opportunity for long-term appreciation, and reasonably predictable earnings (primarily through rental income) better than bonds. Real estate also tends to be less affected by immediate economic conditions. Real estate investments are included to provide income with opportunities for long-term appreciation.

Investments

With these allocations in mind, I now need to select the specific vehicles for investments. This is a non-trivial exercise. Using the same logic which guided diversification in asset allocation, I also want to have diversification within each investment category. This is difficult to achieve and managed through individual stocks which suggests that a fund would be more appropriate.

The question then becomes how much management do I want (am I willing to pay for) in a stock fund. The answer is simple: minimal to none. Management costs and fund expenses are historically not commensurate with the return on investment. I'm investing in the long-term trend of the market to increase as a non-zero-sum game. I'm not investing in a manager's putative ability to pick stocks or time the market or otherwise seek to maximize annual returns. Nor do I believe I can do a better job picking individual stocks. I will therefore chose funds that have minimal management costs and minimal churn: stock index funds and UITs (unit investment trusts like SPY, for the S&P 500, which trade like stocks).

With the exception of bonds, my selected investments are through stock-like instruments like UITs and REITs which track the behavior of a large portion of the market, or through stock buckets that are as easy to trade as their component stocks. Part of the reason for this decision beyond diversification is discussed in the strategies section.

Some of the specific investments that will be part of my investment portfolio are summarized in the following table. Additional performance and reference data is provided in the appendix.

Category	Investment	Description and Rationale
Bonds	Treasuries,	These would be chosen with various maturities between 1 and 10 years (laddering)

Category	Investment	Description and Rationale
	High-Grade Corporate	to reduce interest rate risk. Short-term bonds are least sensitive to changing interest rates and have a high degree of stability. Long-term bonds often have better returns, but their prices are more volatile.
Small-Cap	QQQ	This a UIT that tracks the NASDAQ-100 Index, which represent the largest and most-actively traded companies on NASDAQ. The price of the tracking stock corresponds to the performance of its component equities and is about one-fortieth of the index's value. Composition is evaluated quarterly. The index consists of companies in the technology, communications, biotechnology, and retail industries.
	Varied	Additional sector-specific investments in technology, biotechnology and alternative energy industries will be done through stock buckets. These are broker-specific instruments with very low fees (often a fixed percentage of assets with no individual trade restrictions or commissions within a bucket). Companies that offer these include FOLIOfn and E*Trade. These would provide an effective mechanism of tracking an industry sector when there are fewer than 50 companies.
Large-Cap	SPY	This is a UIT that issues S&P Depositary Receipts (SPDRs), a tracking stock for the S&P 500 composite stock price index consisting of the largest US companies. SPDRs are worth about one-tenth of the index and are designed to mirror its daily undulations. Some of the trust's most heavily weighted components are General Electric, Cisco Systems, Microsoft, Exxon Mobil, Pfizer, and Intel.
	Varied	Additional sector-specific investments in telecommunications and energy industries through stock buckets would provide an effective mechanism of tracking an industry sector when there are fewer than 50 applicable companies.
Foreign	IEV	This UIT tracks the S&P Europe 350 Index and corresponds to the performance of stocks across a broad range of industries in continental Europe.
	EWT	This UIT tracks the MSCI Taiwan index and provides investment results that correspond generally to the price and yield performance of publicly traded securities in the aggregate Taiwanese market.
Real Estate	SPG	The Simon Property Group real estate investment trust is one of the largest REITs. For comparison purposes, this fund has had positive funds from operation for 2001 and increases over last year while most stock funds have seen losses.
	VGSIX	The Vanguard REIT index fund is a no-fee, no-load fund that tracks the performance of REITs with low management fees and expense ratio (0.33%).

Strategy

There are two important strategies for managing this investment portfolio. The first is periodic rebalancing. By this, I mean reallocating money among the different investments to maintain the desired asset allocation ratios. This provides the advantages of dollar-cost averaging with a fixed starting investment amount. The interval at which this should occur is flexible, but should be done frequently enough to match the investment strategy and infrequent enough to moderate the exposure to volatility. I would recommend no less than a 9-month interval (to avoid exposure to annual events) with a sensitivity to tax consequences. The fact that most investments are through stock or stock-like instruments means that performing these readjustments can be done quite easily and without incurring excessive transaction fees (common with mutual funds). Related to rebalancing is the reinvestment of all earnings in a manner that matches the asset allocation.

The second strategy is periodic review of the asset allocation. This needs to be adjusted I near the specified investment horizon, perhaps moving slowly towards a less aggressive—and less volatile—asset mix.

Appendix

NASDAQ 100 TRUST (AMEX:QQQ)						
Last Trade Nov 12 · 38.00	Change +0.27 (+0.72%)		Prev Cls 37.73	Volume 112,994,400	Div Date Mar 17, 2000	
Day's Range 36.30 - 38.35	Bid N/A	Ask N/A	Open 37	Avg Vol N/A	Ex-Div Mar 20, 2000	
52-week Range 27.2000 - 78.0625	Earn/Shr N/A	P/E N/A	Mkt Cap N/A	Div/Shr N/A	Yield N/A	
S&P DEPOS RECPTS (AMEX:SPY)						
Last Trade Nov 12 · 112.03	Change -0.69 (-0.61%)		Prev Cls 112.72	Volume 26,096,600	Div Date Oct 31	
Day's Range 110.13 - 112.65	Bid N/A	Ask N/A	Open 111	Avg Vol N/A	Ex-Div Sep 21	
52-week Range 93.8000 - 140.1094	Earn/Shr N/A	P/E N/A	Mkt Cap N/A	Div/Shr 1.48	Yield 1.31	
S&P EUROPE 350 (AMEX:IEV)						
Last Trade Nov 12 · 57.05	Change -1.44 (-2.46%)		Prev Cls 58.49	Volume 63,600	Div Date Oct 11	
Day's Range 56.67 - 0.00	Bid N/A	Ask N/A	Open 0.00	Avg Vol N/A	Ex-Div Oct 2	
52-week Range 45.5200 - 80.5000	Earn/Shr N/A	P/E N/A	Mkt Cap N/A	Div/Shr 0.80	Yield 1.36	
ISHARES MSCI TAI (AMEX:EWT)						
Last Trade Nov 12 · 8.39	Change +0.19 (+2.32%)		Prev Cls 8.20	Volume 15,100	Div Date Aug 31, 2000	
Day's Range 8.20 - 8.39	Bid N/A	Ask N/A	Open 8.25	Avg Vol N/A	Ex-Div Aug 24, 2000	
52-week Range 6.5100 - 14.4375	Earn/Shr N/A	P/E N/A	Mkt Cap N/A	Div/Shr N/A	Yield N/A	
SIMON PROP GRP (NYSE:SPG)						
Last Trade Nov 12 · 28.03	Change +0.04 (+0.14%)		Prev Cls 27.99	Volume 271,300	Div Date Nov 30	
Day's Range 27.75 - 28.23	Bid N/A	Ask N/A	Open 0.00	Avg Vol 540,363	Ex-Div Nov 15	
52-week Range 22.1250 - 30.9700	Earn/Shr 1.07	P/E 26.09	Mkt Cap 4.900B	Div/Shr 2.10	Yield 7.50	
VANGUARD SP REIT (Nasdaq:VGSIX)						
Net Asset Value Nov 12 · 11.72		Change +0.05 (+0.43%)		Prev Cls 11.67		

