Tracking the Benefit of Diversification through "The Lost Decade" of 2000-2009

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Executive Summary

- **Definitions of diversification**
- **Importance of portfolio diversification**
- **Examples of diversification**
- **Relevance of diversification to Financial Planning, particularly for Cross-Border Investors**

Introduction

At Thun Financial Advisors, we believe that proper diversification is the single most important principle of successful investing. Nevertheless, it is actually quite rare to find an investor who has a fully diversified investment portfolio. Many investors who believe they are diversified are at best only partially diversified.

Frequently, we find investors who are not just under-diversified, but who are thoroughly un-diversified. Under-diversification typically takes the form of too much cash; over concentration in stocks; over-concentration in US stocks; no exposure to commodities, small cap stocks, emerging markets or real estate. In some cases, an investor has all their money invested in just a few stocks and/or bonds, often times

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We maximize long-term wealth accumulation for our clients by combining an index allocation investment model with strategic tax, currency, retirement and estate planning. We guard our clients' wealth as though it was our own by emphasizing prudent diversification with a focus on wealth preservation and growth.

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in the same country and industry sector.

At best, failure to fully diversify implies that an investor is likely to suffer lower rates of return for the amount of investment risk being assumed than would be the case with greater diversification. At worst, heavy concentration of a portfolio in just a few investments exposes an investor to a catastrophic loss due to the occurrence of a random, unpredictable event such as the bankrupting of Enron or the sudden collapse of a hedge fund, a la Madoff.

Importance of Portfolio Diversification

Alternatively, by thoroughly diversifying our portfolios across many different asset classes, we can expect to achieve lower risk and lower volatility than would be the case with a heavily concentrated, undiversified portfolio. And we can do so without having to accept lower expected returns. Diversification is not a guarantee against losses, but gains AND losses will tend to be less dramatic while the average gain over the long-term will be higher when we are fully diversified.

Furthermore, by investing in each of the different asset classes through exchange-traded index funds (ETFs), we eliminate the risk that any individual company bankruptcy or asset class bear market will put our financial wellbeing at risk. That is why we call diversification the only "free lunch" in investing. It alters the balance between risk and reward in favor of reward.

To demonstrate how Thun Financial employs this powerful tool on behalf of clients, we looked at the performance of three different portfolios over the 10-year period of 2000 to 2009. Each portfolio is invested across a range of investments, and each portfolio is successively more diversified. The third portfolio is Thun's Moderate Risk Model Portfolio. Returns are calculated based on the actual return of the underlying funds.

Modern Portfolio Theory

Modern Portfolio Theory was first put forth by Harry Markowitz in 1952 and it is the foundation of the idea of diversification in investing. The key points of Modern Portfolio Theory are:

- Portfolio construction is based on four key elements: security valuation, asset allocation, portfolio optimization, and performance measurement
- The ultimate goal of construction of a portfolio is to place it on the efficient frontier: the place where the most return is gained for the amount of risk the investor is willing to take.

Portfolio #1: This portfolio is 100% invested in a US S&P 500 stock index fund.

Portfolio #2: This is a moderate risk portfolio of 40% US stocks, 30% international stocks and 30% high quality bonds.

Portfolio #3: This is the Thun Moderate Risk Model Portfolio. This portfolio is fully diversified across 14 different asset classes comprised of stocks, bonds, real estate and commodities.

(Please see Appendix for details on each portfolio including 2000-2009 annualized returns per asset class.)

We choose this decade because it was a particularly bad period of investment returns for most Americans. U.S. large company stocks, the asset class that typically dominates most U.S. investor portfolios, delivered a –10% cumulative return over the entire 10-year period, hence the title "The Lost Decade."

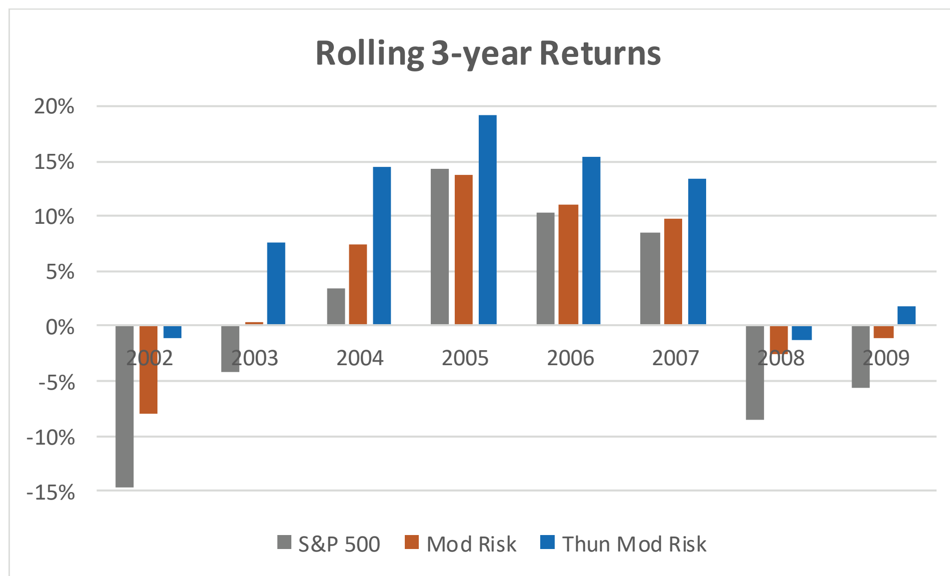
Summary Results for 2000 to 2009 (10 years)

Portfolio	Portfolio Name	Cumulative Return	Compound Annual Growth Rate	Standard Deviation[1]	Best Year	Worst Year	Sharpe Ratio[2]
1	All US Large Cap Stock Portfolio	-10%	-1%	16%	29%	-37%	-0.2
2	Moderate Risk Global Stock/Bond Portfolio	28%	2%	11%	24%	-25%	0.0
3	Thun FA Moderate Risk Model Portfolio	102%	7%	11%	29%	-26%	0.4

1) A measure of risk

2) A measure of return per unit of risk

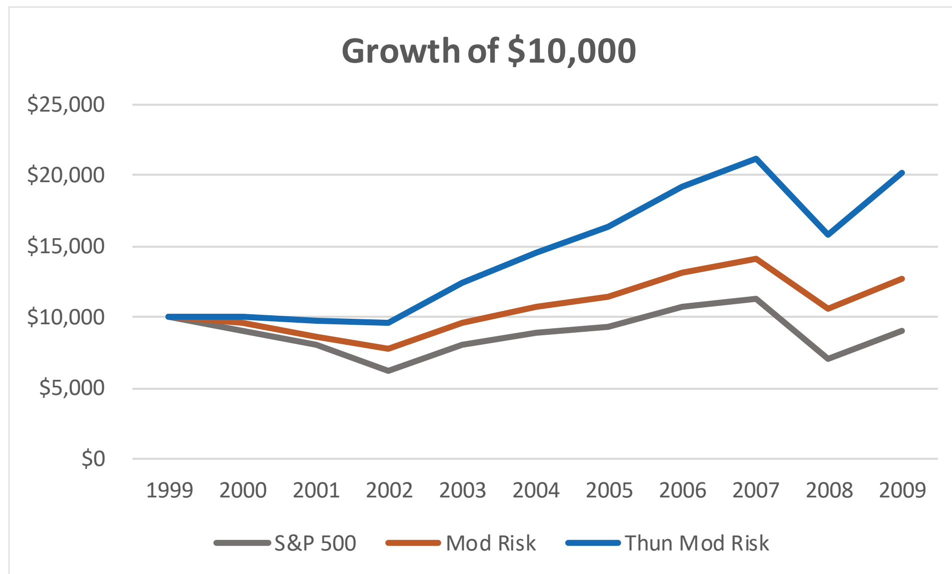
For investors who had a well diversified global portfolio (including a healthy allocation to large U.S. company stocks), however, the decade delivered very reasonable returns. As the table above clearly demonstrates, the highly diversified Portfolio #3, the Thun Moderate Risk Model Portfolio, delivered a respectable 7% annualized return, better than either the all stock or the stock/bond portfolios. Just as importantly, it did so with lower or equal risk, as measured by the portfolios standard deviation. Furthermore, the Thun Portfolio's biggest gain year matched the best upside of all three funds even though its biggest loss year did no worse than the worst performance of the three. Equally impressive, over a 3-year period, the Thun Moderate Risk Portfolio generated the best returns and substantially mitigated periods of negative returns as illustrated in the chart below.



Part of the reason the Thun Moderate Risk Portfolio did well was because of its exposure to commodities, real estate (REITs) and emerging markets—asset classes which generated better returns than stocks and bonds over the 10 years being considered. This underscores the important role played by non-traditional investments in achieving the full benefit of diversification. Furthermore, commodities and REITs returns have low correlation to stocks, even though they generate relatively high, stock-like long-term returns. In fact, looking at data back to 1970, commodities actually have had negative correlation with stocks. That is to say, when stocks go up, commodities have tended to go down and vice versa. So while commodities may not deliver superior returns every decade, they are good long-term investments that typically do well when stocks are doing poorly. The result is reduced overall portfolio volatility and risk.

Conclusion: Results of Diversified Portfolios

By diversifying across stocks and commodities, the volatility of the overall portfolio is reduced, even though returns are not. (Adding in real estate and bond investments also augments diversification and further reduces portfolio volatility.) Going forward, commodities may outperform or underperform other asset classes in any given period. However, they are likely to retain their low correlation to stocks, and hence act to reduce overall portfolio volatility and risk.



The example of commodities underscores a key principle of sound portfolio construction: to combine different kinds of investments that have relatively high potential return but which are as weakly correlated to one another as possible. Fully exploiting the diversification principle requires investing across the full range of global assets, including stocks, bonds, real estate commodities and their various subclasses.

Thun Financial Advisors Research is the leading provider of financial planning research for cross-border and American expatriate investors. Based in Madison, Wisconsin, David Kuenzi and Thun Financial Advisors' Research have been featured in the *Wall Street Journal, Emerging Money, Investment News, International Advisor, Financial Planning Magazine* and *Wealth Management* among other publications.

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Appendix

Portfolio holdings, including 2000-2009 annualized returns per asset class.

Portfolio 1: All US Large Cap Stock Portfolio

Weight	Asset Class	Relevant Market Index	Compound Annual Growth Rate
100%	US Stocks	S&P 500	-1%

Portfolio 2: Moderate Risk Global Stock/Bond Portfolio

Weight	Asset Class	Relevant Market Index	Compound Annual Growth Rate
70%	*Stocks*		
40%	US Large Cap	S&P 500	-1%
20%	Developed Europe	MSCI Europe	2%
10%	Developed Asia	MSCI Pacific	-1%
30%	*Bonds*		
15%	Intermediate US Treasuries	Barclays 3-7yr US Treasury	7%
15%	Intermediate US Municipals	Barclays 7yr US Municipal	5%

Portfolio 3: Thun Moderate Risk Model Portfolio

Weight	Asset Class	Relevant Market Index	Compound Annual Growth Rate
37%	*Stocks*		
13%	US Large Cap	S&P 500	-1%
5%	US Mid Cap	MSCI US Mid Cap	6%
5%	US Small Cap	MSCI US Small Cap	4%
7%	Developed Europe	MSCI Europe	2%
5%	Developed Asia	MSCI Pacific	-1%
5%	International Small Cap	S&P International Developed World Small Cap	12%
10%	Emerging Markets	MSCI Emerging Markets	10%
30%	*Bonds*		
10%	Intermediate US Treasuries	Barclays 3-7yr US Treasury	7%
10%	Intermediate US Municipals	Barclays 7yr US Municipal	5%
10%	US Treasury Inflation Protected Securities	Barclays US Treasury Inflation Protected	8%
10%	*Real Estate*		
5%	US REITs	MSCI US REIT	10%
5%	International REITs	S&P Global Ex-US Property	5%
10%	*Commodities*		
5%	Diversified Commodities	DB Commodity Index	12%
5%	Gold	NYMEX Gold	14%

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