



*“Those who are ignorant of investment history are bound to repeat it. Historical investment returns and risks of various asset classes should be studied. Investment results for an asset over a long enough period (greater than 20 years) are a good guide to the future returns and risks of that asset. Further, it should be possible to approximate the future long-term return and risk of a portfolio consisting of such assets.”*

— **William Bernstein, “The Intelligent Asset Allocator”**

## 1,000 Months of Data!

Apr 1, 2011 | by Jay Franklin

As of May 1, 2011, IFA’s Index and Portfolio data now have 1,000 months (or 83.33 years) of history. This is no small milestone for IFA or for investors who understand the significance of very large data sets.

When making investment decisions, the value of long-term risk and return data cannot be overstated. Without it, investors are forced to resort to guesses and hunches about how to invest, leading to profound uncertainty about what the financial future might hold. This uncertainty can easily lead to investors throwing their money at the latest top-performing mutual fund manager, only to meet with bitter disappointment. The value of the data lies in how it shows us the relationship between risk and return. At the root of most mistakes made by investors is the fallacy that excess return can be captured without risk. The table below provides a simple illustration of the relationship between risk and return as of 4/30/2011.

IFA Index	1,000 Months (83.33 Years) Annualized Return	1,000 Months (83.33 Years) Annualized Standard Deviation	1,000 Months Growth of \$1
US Large Company	9.47%	19.27%	\$1,877.29
US Small Value	12.82%	26.07%	\$17,079.31
One-Year Fixed Income	4.05%	1.52%	\$27.31

It is easy to see that the risk and return of US Small Value exceeds US Large Company which exceeds One-Year Fixed Income. What might not be so apparent is that if we only had 20 or 30 years of data, we would not be able to draw these conclusions at a 95% confidence level, yet investors often make crucial decisions based on far less data (1 to 5 years).

At this point, it may be worthwhile to examine the ultimate source of the index data (i.e., prior to live fund data) used in the IFA indexes, The Center for Research in Security Prices (CRSP), which is housed at the University of Chicago Booth School of Business was established in 1960 with the goal of building and maintaining historical databases for stock (NASDAQ, AMEX, NYSE), indexes, bond, and mutual fund securities. It is considered to be the gold standard of historical financial data in both the academic and corporate community. In the words of Professor Elroy Dimson of the London Business School, “No research initiative has had a bigger impact on finance than CRSP, and studies based on CRSP’s high-quality data have extended knowledge, underpinned innovation, and enhanced financial practice...Every finance professional owes an indirect debt to CRSP.” Unfortunately, there are too many “finance professionals” who do not even know what CRSP stands for. Their clients suffer the consequences. Currently, Eugene Fama, a well-respected professor of finance at Booth and Director of Research at DFA, is the chairman of CRSP. DFA bases several of its investment products on Fama’s findings from that database. Furthermore, The IFA Index Portfolios are constructed around the 3-Factor and 5-Factor models of Eugene Fama and Ken French.

A question sometimes asked is why not go back further than the CRSP data? For example, G. William Schwert of the University of Rochester published an article in The Journal of Business titled “Indexes of US Stock Prices from 1802 to 1987.” It is IFA’s opinion that while this research is valuable, the amount of data in those early years is simply too small to provide a basis for investment decision-making. For example, for the period from 1802 to 1845, the returns are based entirely on seven stocks (six of which are banks). Also, while the stock price data may be reliable, the accounting for items such as book value is quite murky at best. This makes it very difficult to study factors such as growth vs. value. One criticism leveled at CRSP data is that it begins just before the Great Depression, so it reflects a high level of volatility in the early years (through the end of World War II) relative to the volatility of later years (sometimes known as “the great moderation”). IFA encourages investors to examine both the 83-year (with Depression) and the 50-year data (without Depression).

To recap a highly relevant section of Step 9,

The first problem investors are faced with relative to history of stock market returns is the lack of quality long-term data in the financial media. Secondly, they are not aware that long-term data has more value to them than does short-term data. When looking at 80+ years of data many investors think it is irrelevant because they do not have 80+ years to live. This point of view overlooks the importance of sample size and the concern for sample error. When gathering information to characterize the risk and return of capitalism, the more quality data you have, the more accurate your conclusions.

While it may not warrant opening an expensive bottle of champagne, 1,000 months of data is indeed something worth feeling good about.

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