2013 Morningstar® Andex® Guide: **Getting Started**

Contents

The Morningstar® Andex® Chart highlights key investment principles such as risk and return, diversification, downturns and recoveries, life expectancy and inflation, all concepts that help outline the benefits of a long-term investment approach.

Quick Facts

- U.S. large and small stocks have provided the highest return and largest increase in wealth over the past 87 years.
- Small stocks have exhibited the highest risk of all the asset classes, while bonds have had significantly lower volatility compared with stocks since 1926.
- The stock market declined 51% between October 2007 and February 2009. As of December 2012, the stock market has recovered all of this lost value and expanded an additional 3%.
- As a result of two major crises and associated stock market declines experienced during the "lost decade," large stocks lagged behind bonds over the past 10 years.
- Over the past 10 years, investments in Treasury bills have not been able to keep pace with inflation.
- Today, a 65-year old retiree may need to factor in a 20-year (or more) plan for investing because life expectancies have increased since the 1930s.

Investment Growth

The 2013 U.S. Morningstar® Andex® Chart illustrates the growth of $1 invested in five major asset classes and inflation, from January 1926 to December 2012. The line chart illustrates the ending wealth values and the compound annual returns over this time period. These values are summarized in the table below.

Growth of $1 (1926 – 2012)

	Ending Wealth Value ($)	Compound Annual Return (%)
U.S. Small Stock Total Return Index	18,365	11.9
U.S. Large Stock Total Return Index	3,533	9.8
Long-Term Government Bonds	123	5.7
5-Year Fixed-Term Investments	57	4.8
30-Day Treasury Bills	21	3.5
Inflation	13	3.0

Risk and Return

The chart provides a historical insight into the performance characteristics of various asset classes. As illustrated, fixed-income investments provided only a fraction of the growth provided by stocks. Lower-risk investments, such as Treasury bills or 5-year fixed-term investments with risk levels at 3.1% and 3.2%, respectively, have averaged modest long-term historical returns since January 1926 (3.5% for T-bills and 4.8% for fixed-term investments).

Higher-risk investments such as U.S. small and large stocks have averaged higher returns historically, but with more volatility or fluctuations in value. Take, for example, U.S. small stocks, which returned 11.9% since January 1926 but not without the higher risk of 32.3%.

Compound Annual Returns by Decade

The most successful decade for U.S. large stocks was the 1950s (19.4%), while the worst-performing one, the "lost decade," happened during the 2000s (–0.9%). Bonds, on the other hand, experienced the most successful decade in the 1980s (12.6%) and the worst-performing one in the 1950s (–0.1%). Similar to bonds, the best 10-year period for Treasury bills was in the 1980s, with a compound annual return of 8.9%.

Percentage Returns

The Percentage Returns table displays the return characteristics of the five major asset classes and inflation over varying time periods. As expected in an efficient market, asset classes exhibiting higher returns are associated with higher risk.

Small stocks have had the highest return but have also exhibited the highest risk (32.3%) of the asset classes shown. Though stocks are often considered to be risky investments, long-term gains have been demonstrated to offset short-term losses for the long-term investor. As illustrated by the percentage returns table, all asset classes have seen positive returns over all the time periods analyzed. Short-term losses can even be expected for fixed-income investments, though these are generally considered less risky than stocks. With a long investment horizon, however, losses could potentially be recouped.

All assets contain some degree of risk; however, some assets are considered more volatile (riskier) than others.

If you desire high potential long-term returns, you must be willing to accept the high levels of volatility associated with the types of asset classes that produce such returns.

Downturns and Recoveries

The chart highlights (in light gray background) U.S. recessions as per the National Bureau of Economic Research. There have been 15 recessions in the U.S. since 1926.

During the most recent recession (linked to the global financial crisis), the S&P 500® lost 51% of its value, the second largest loss after the Great Depression. However, history reveals that recoveries usually follow contractions. This is evident from the rebound in asset-class returns during 1975, 1982, 1991, and 2003.

Gold and Oil

It is also interesting to look at commodity prices, such as gold and oil, under different market conditions. Gold, for example, is considered somewhat of a safe investment during poor market conditions. This is evident from the rise in prices during recessionary periods: Gold prices reached a high of $1,895 in September 2011. Investors have the option of owning stocks belonging to a firm that derives its revenue from the sale of such physical commodities.

Expansions, Contractions, and Recoveries

There have been 15 market contractions (defined by a time period when the stock market value declined from its peak by 10% or more) since 1926. These declines seem to happen at random and last for varying time periods. Following a contraction is usually a period of recovery, represented as the number of months from the bottom of a contraction to its previous peak.

An expansion measures the subsequent performance of the index from the recovery until it reaches the next peak level before another 10% decline. Since the early 2000s, contractions and recoveries have played a dominant role while we've seen much less of an expansion, giving the investor a sense of a sluggish stock market. A market contraction started in August 2000, followed by a 49-month recovery, a quick year-long expansion and a contraction again in October 2007. This downturn lasted for 16 months, and the stock market recovered after 37 months, in March 2012.

A disciplined investment approach is still the best strategy for handling market downturns.

Staying focused on a long-term investment plan may enable investors to participate in recoveries.

Inflation

Inflation is commonly defined as the rise in prices for goods and services over time. Inflation, the rise in prices, erodes each dollar you earn on your investments. By not considering the negative impact inflation has on investment returns, you could run the risk of overestimating your future purchasing power. Take, for example, the case of the stamp. In the 1920s, a first-class stamp cost about 2 cents; today, the same stamp costs 45 cents.

In the U.S., high inflationary periods were experienced during the 1970s and 1980s, most likely following the 1973 oil crisis and the 1979 energy crisis. Oil rose to $38.34 per barrel in 1981. Inflation, illustrated by the rolling inflation, was over 10% during this period. This is also evident by the compound annual rate of inflation in the 1970s at 7.4% and 1980s at 5.1%. More recently, inflation has been relatively low in the 2% to 3% range, and even negative (deflation) for most of 2009.

Over long time horizons, such as a 30-year retirement, however, an annual increase in prices of 3% can have a tremendous impact on investors' financial situations. Investors planning for retirement would be wise to plan for an inflation rate higher than 3%.

Wages and Unemployment

The U.S. experienced economic recessions in the early 1990s, early 2000s, and, most recently, in the late 2000s. This led to high unemployment rates, about 10.0% as of October 2009. Unemployment is currently at about 7.8% as of December 2012. In the 1950s, minimum wage rates were $1 an hour. In 2012, the minimum wage rate has reached $7.25 an hour.

Prime Interest Rate

Economic ups and downs affect the ability of consumers, companies, and banks to spend money or provide goods and services. For example, when inflation is high, the Federal Reserve may act by increasing the Federal Funds rate, which in turn causes the prime rate to rise, making it more expensive to borrow money.

During the mid to late 1970s and early 1980s, inflation increased significantly and unemployment was high. In response, the prime rate also increased, until it reached an all-time high of 21.5% in 1980. Likewise, when inflation is low, the Federal Reserve may decrease the Federal Funds rate, which in turn decreases the prime rate. Changes in the prime rate help boost the economy or slow it down.

Tax Rates

It is important to take tax consequences into account when making an investment, especially for investors in higher tax brackets. Income taxes can create a significant difference between your before-tax and after-tax returns, so it is important to be aware of their potential impact. The most drastic cut in the top federal tax rate occurred in the 1980s, when the rate was cut from 70% to 28%. It was subsequently increased to 39.6% in the early 1990s, and again cut to 35% by 2003.

Life Expectancy

Longevity risk is the possibility that a person will outlive his or her retirement savings. Accounting for longevity risk in retirement planning is more important than ever as people today are living significantly longer than prior generations, mainly because of advances in medicine, diet, and technology.

The chart lists life expectancy for both males and females since the 1930s. The average life expectancy was 58.1 years for a male and 61.6 years for a female back in the 1930s; current average life expectancy rates are much higher. As of 2011, the average life expectancy was 76.3 years for a male and 81.1 years for a female. As people live longer, they should plan for their retirement money to last longer as well.

Retirees face numerous risks in retirement, most importantly longevity risk, inflation risk, and market volatility risk.

Longevity risk is perhaps one of the biggest risks that investors will face as they enter retirement.

S&P Price-to-Earnings Ratio

The price-to-earnings ratio for stocks is calculated by dividing the price per share by the annual earnings per share. A higher P/E ratio basically means that investors are paying more for each unit of income, so the stock is more expensive than another stock with a lower P/E ratio. For a market index, such as the S&P 500®, weighted average figures are calculated based on all the underlying stocks, and then the P/E ratio is derived.

The chart displays trailing 12-month P/E ratios since 1926 for the S&P 500®, which is considered representative of the U.S. market in general. The median P/E ratio for this time period was 15.5, which is, in general, considered a fair value by financial analysts. Individual data points, however, have fluctuated throughout the time period studied, as the market reacted to various economic stimuli and historic events.

"The Past 30 Years" chart examines the performance of seven asset classes and a balanced portfolio over what is considered a typical retirement horizon.

Quick Facts

- The balanced portfolio exhibited lower risk compared with bonds over the past 30 years.
- The worst 5-year return of the balanced portfolio was positive over the past 30 years.
- Bonds have had a low correlation to the stock market over the past 30 years.
- Gold has had a negative correlation to the stock market over the past 30 years.
- Between 2008 and 2012, annual fund flows to U.S. stocks and bonds have moved in opposite directions, with record positive flows into bond funds and negative flows out of U.S. stock funds.
- In 2008, about $32 billion flowed into U.S. open-end bond funds (taxable). Over the next four years flows skyrocketed to $291 billion, $222 billion, $135 billion, and $266 billion.
- In 2012, investors pulled $105 billion out of U.S. stock funds, just as large stocks posted a 16.0% return for the year.

The Past 30 Years

Investigating past performance over the long term is a prerequisite of any investment decision-making process, because it can help identify trends in the behavior of various asset classes over time. In general, stocks have outperformed bonds over long periods of time in the past, and small stocks have outperformed large stocks. However, things may happen differently over shorter time periods, especially when major events (such as financial crises, wars, or recessions) occur.

The time period analyzed (1983 to 2012) is particular since it includes significant events such as the recent subprime crisis and the dot-com crash of the early 2000's. Small stocks were the top performer (with an ending wealth value of $240,428), which is not surprising since they tend to be riskier and therefore expected to compensate investors with higher returns for that extra risk.

Bonds have performed well in the past few years, which can be explained by the flight to safety that occurred during the 2007–2009 crash. Bond returns over the past 3 and 5 years have been unusually high, which in turn may have led to increased flows into bond funds as investors chased bond performance. This is clearly illustrated by the Annual Net Asset Fund Flows chart: Starting in 2007 (when the Growth of $10,000 lines began to drop), flows into U.S. stock funds became negative and stayed that way through 2012. Flows into bond funds, on the contrary, reached a peak in 2009 and have remained high since.

While U.S. stocks were hit pretty badly hit during the "lost decade," international stocks fared even worse. Both world ex-U.S. (developed) and emerging-market stocks posted negative returns during the past 5 years, as consequences of events such as the sovereign debt crisis rippled throughout the global landscape to affect other economies. The balanced portfolio posted a performance close to that of large stocks for the entire period studied; however, it did so with much lower risk (10.7% as compared with 17.2%). This clearly illustrates the importance of diversification in the context of a risk-management strategy, especially in turbulent markets.

Last, but not least, it is important to take a look at correlation between various asset classes from a historical perspective. For instance, U.S. small stocks and international stocks are fairly highly correlated to U.S. large stocks. When bad news hits, markets around the world tend to go down together, as illustrated by the two drops (2000 and 2007) in the Growth of $10,000 graph. Bonds are almost uncorrelated to stocks (0.03) for the time period analyzed, although in general these two investments tend to move in opposite directions. Gold, on the other hand, has a negative correlation with large stocks, which is why it's usually considered a "safe" investment in times of trouble. In fact, gold prices reached an all-time high in 2011 as investors, weary of volatile equity markets and a U.S. credit downgrade, poured money into tangible assets.

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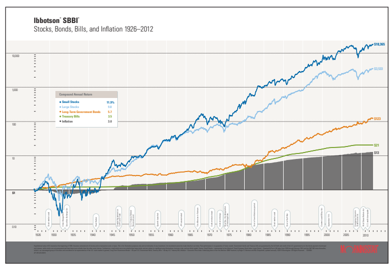

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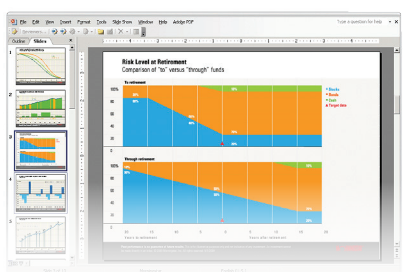

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