



# 2012 Andex® Chart Speaker Notes

# SAMPLE

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**Investment Growth**

The 2012 U.S. Andex® Chart illustrates the growth of \$1 invested in six major asset classes, a balanced portfolio, and inflation, from January 1926 to December 2011. The allocation of the balanced portfolio is displayed in the Balanced Portfolio pie chart in the top center area of the handout (poster). 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.

The chart provides a historical insight into the performance characteristics of various asset classes. U.S. small stocks provided the highest return (11.9%) and largest increase in wealth (\$15,532) during the time period analyzed. As illustrated in the image, fixed-income investments provided only a fraction of the growth provided by stocks. However, the higher returns achieved by stocks are associated with much greater risk, which can be identified by the volatility or fluctuation of the graph lines. The balanced portfolio had a return lower than both small and large U.S. stocks, higher than all fixed-income investments, and, surprisingly, also higher than world ex-U.S. stocks.

The chart also 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. 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.

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.

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**Growth of \$1 (1926 – 2011)**

	Ending Wealth Value (\$)	Compound Annual Return (%)
U.S. Small Stock Total Return Index	15,532	11.9
U.S. Large Stock Total Return Index	3,045	9.8
Balanced Portfolio	1,336	8.7
World Stock Markets ex-U.S. Total Return Index	714	7.9
Long-Term Government Bonds	119	5.7
5-Year Fixed-Term Investments	57	4.8
30-Day Treasury Bills	21	3.6
Inflation	13	3.0

## Risk and Return

The bar chart on top illustrates the calendar year returns of stocks, bonds, and cash since 1926. Below the bar chart there are compound annual returns by decade for large stocks, bonds, cash, and the balanced portfolio.

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%. Since all three asset classes performed well during the 1980s, this was also the balanced portfolio’s best decade (16.4%).

The Percentage Returns table displays the return characteristics of the six major asset classes, the balanced portfolio 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 (32.5%) 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 20- and 30-year time frames. 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.

The table also helps compare the performance of the balanced portfolio relative to the individual asset classes listed. Although investing in a diversified portfolio may prevent an investor from capturing top-performer returns in any given year, this strategy can also protect an investor from experiencing extreme losses. This is illustrated by the long-term risk and return characteristics of the balanced portfolio: third highest return after small and large stocks, but a risk level much closer to bonds.

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## 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 unemploy-

ment 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.

## 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 44 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 during this period was over 10%. 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%.

## S&P 500 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 15.6, 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.

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### 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 because people today are living significantly longer than prior generations, due to 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 2009, the average life expectancy was 75.7 years for a male and 80.6 years for a female. As people live longer, they should plan for their retirement money to last longer as well.

## 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 10.1% as of October 2009. Unemployment is currently at about 8.5% as of

December 2011. In the 1950s, minimum wage rates were \$1 an hour. In 2011, the minimum wage rate has reached \$7.25 an hour.

### 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.