## NATURAL PINNACLE TO P/Es: THE PEAK AT PRICE STABILITY

INFLATION: Start with the inflation rate

| Scenario A | Scenario B | Scenario C | Scenario D | Scenario E |
| :---: | :---: | :---: | :---: | :---: |
| -3.0\% | 1.0\% | 2.0\% | 3.0\% | 5.0\% |

## SHORT-TERM RISK-FREE YIELDS

Investors will require that short-term Treasury Bills yield at least the inflation rate; although in deflation, the yield would not be less than zero.

LONG-TERM RISK-FREE YIELDS
Longer-term Treasury Bonds have time risk and require higher yields; historically $\sim 1 \%$ higher.

| Spread | $\frac{1.00 \%}{1.10 \%}$ | $\frac{1.00 \%}{2.10 \%}$ | $\frac{1.00 \%}{3.10 \%}$ | $\frac{1.00 \%}{4.10 \%}$ | $\frac{1.00 \%}{6.10 \%}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Yield | 10 |  |  |  |  |

## CORPORATE BOND YIELDS

Corporate bonds have credit risk and require higher yields than Treasury Bonds; the spreads historically are higher with higher interest rates. In deflation, the spread could increase due to increased credit risks; the assumption is conservative at the same rate as price stability.

## STOCK MARKET RETURNS

Stocks have more risk and are junior in priority to corporate bonds and thus require higher returns; the equity risk premium has historically been higher with the higher uncertainties of inflation or deflation; the spread assumption is conservative at the same rate as price stability.

| Spread | 3.50\% | 3.00\% | 3.25\% | 3.50\% | 4.00\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gross Return | 5.35\% | 5.60\% | 6.98\% | 8.35\% | 11.10\% |

## ECONOMIC GROWTH

The economy (GDP) has historically grown at 3\% before inflation on a fairly consistent basis; the level of inflation determines the nominal (actual) growth rate.

| Real GDP | $\underline{3.0 \%}$ | $\underline{3.0 \%}$ | $\underline{3.0 \%}$ | $\underline{3.0 \%}$ | $\frac{3.0 \%}{5.0 \%}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal GDP | $0.0 \%$ | $4.0 \%$ | $\frac{5.0 \%}{8.0 \%}$ |  |  |

## EARNINGS GROWTH

Earnings per share for the overall stock market has historically grown at a rate that is just below the nominal growth rate in the economy.

| EPS Growth $\quad 0.0 \%$ | $3.6 \%$ | $4.5 \%$ | $5.4 \%$ | $7.2 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |

STOCK MARKET VALUATION (P/E RATIOS]
Accepted academic and financial industry principles use the "Dividend Discount Model" to value stocks and the market; the P/E ratio is based upon the formula of 1 / (GR - EG); thus, one divided by the difference between the 'Gross Return' and the 'EPS Growth' rate.

| Example EPS | $\$ 50$ | $\$ 50$ | $\$ 50$ | $\$ 50$ | $\$ 50$ |
| :---: | :--- | :--- | :--- | :--- | :---: |
| Dividend Payout Ratio | $50 \%$ | $50 \%$ | $50 \%$ | $50 \%$ | $50 \%$ |
| Dividends Per Share | $\$ 25$ | $\$ 25$ | $\$ 25$ | $\$ 25$ | $\$ 25$ |
| Required Return | $5.35 \%$ | $5.60 \%$ | $6.98 \%$ | $8.35 \%$ | $11.10 \%$ |
| Expected Growth Rate <br> E | $0.0 \%$ | $3.6 \%$ | $4.5 \%$ | $5.4 \%$ | $7.2 \%$ |
| DDM Value: Price | $\$ 467$ | $\$ 1,250$ | $\$ 1,010$ | $\$ 847$ | $\$ 641$ |
| \$Div/(Return - Growth) |  |  |  |  |  |
| P/E Ratio | $\mathbf{9}$ | $\mathbf{2 5}$ | $\mathbf{2 0}$ | $\mathbf{1 7}$ | $\mathbf{1 3}$ |

## P/E's PEAK AT PRICE STABILITY OF NEAR 1\% INFLATION

The deflation scenario (A) has deflation of $-3 \%$ and a P/E of 9; the low inflation scenario (B) has inflation of 1\% and a P/E of 25; the below average inflation scenario (C) has inflation of $2 \%$ and a P/E of 20 ; the average inflation scenario (D) has average inflation of $3 \%$ and an average P/E of 17; and the above average inflation scenario (E) has inflation of $5 \%$ and a below average P/E of 13.

