

literature on financial analysts' forecasts (FAF). In Section II, models and data are discussed. Following a comparison of the results to historical risk premia, the estimates are subjected to economic tests of both their time-series and cross-sectional characteristics in Section III. Finally, conclusions are offered in Section IV.

## I. Background and Literature Review

In establishing economic criteria for resource allocation, it is often convenient to use the notion of a shareholder's required rate of return. Such a rate ( $k$ ) is the minimum level of expected return necessary to compensate the investor for bearing risks and receiving dollars in the future rather than in the present. In general,  $k$  will depend on returns available on alternative investments (e.g., bonds or other equities) and the riskiness of the stock. To isolate the effects of risk, it is useful to work in terms of a risk premium ( $rp$ ), defined as

$$rp = k - i, \quad (1)$$

where  $i$  = required return for a zero risk investment.<sup>1</sup>

Lacking a superior alternative, investigators often use averages of historical realizations to estimate a benchmark "market" risk premium which then may be adjusted for the relative risk of individual stocks (e.g., using the CAPM or a variant). The historical studies of Ibbotson Associates [13] have been used frequently to implement this approach.<sup>2</sup> This historical approach requires the assumptions that past realizations are a good surrogate for future expectations and, as typically applied, that risk premia are constant over time. Carleton and Lakonishok [5] demonstrate empirically some of the problems with such historical premia when they are disaggregated for different time periods or groups of firms.

As an alternative to historical estimates, the current paper derives estimates of  $k$ , and hence, implied values of  $rp$ , using publicly available expectational data. This expectational approach employs the dividend growth model (hereafter referred to as the discounted cash flow or DCF model) in which a consensus measure of financial analysts' forecasts (FAF) of earnings is used as a proxy for investor expectations. Earlier works by Malkiel [17], Brigham,

Vinson, and Shome [4], and Harris [12] have used FAF in DCF models, and this approach has been employed in regulatory settings (see Harris [12]) and suggested by consultants as an alternative to use of historical data (e.g., Ibbotson Associates [13, pp. 127, 128]). Unfortunately, the published studies use data extending to 1984 at the latest. Our paper draws on this earlier work but extends it through 1991.<sup>3</sup> Our work is closest to that done by Harris [12], who reviews literature showing a strong link between equity prices and FAF and supporting the use of FAF as a proxy for investor expectations. Using data from 1982 to 1984, Harris' results suggest that this expectational approach to estimating equity risk premia is an encouraging alternative to the use of historical averages. He also demonstrates that such risk premia vary both cross-sectionally with the riskiness of individual stocks and over time with financial market conditions.

## II. Models and Data

### A. Model for Estimation

The simplest and most commonly used version of the DCF model to estimate shareholders' required rate of return,  $k$ , is shown in Equation (2):

$$k = \left( \frac{D_1}{P_0} \right) + g, \quad (2)$$

where  $D_1$  = dividend per share expected to be received at time one,  $P_0$  = current price per share (time 0), and  $g$  = expected growth rate in dividends per share. The limitations of this model are well known, and it is straightforward to derive expressions for  $k$  based on more general specifications of the DCF model.<sup>4</sup> The primary difficulty in using the DCF model is obtaining an estimate of  $g$ , since it should reflect market expectations of future perfor-

<sup>3</sup>See Harris [12] for a discussion of the earlier work and a detailed discussion of the approach employed here.

<sup>4</sup>As stated, Equation (2) requires expectations of either an infinite horizon of dividend growth at a rate  $g$  or a finite horizon of dividend growth at rate  $g$  and special assumptions about the price of the stock at the end of that horizon. Essentially, the assumption must ensure that the stock price grows at a compound rate of  $g$  over the finite horizon. One could alternatively estimate a nonconstant growth model, although the proxies for multistage growth rates are even more difficult to obtain than single stage growth estimates. Marston, Harris, and Crawford [19] examine publicly available data from 1982-1985 and find that plausible measures of risk are more closely related to expected returns derived from a constant growth model than to those derived from multistage growth models. These findings illustrate empirical difficulties in finding empirical proxies for multistage growth models for large samples.

<sup>1</sup>Theoretically,  $i$  is a risk-free rate, though empirically its proxy (e.g., yield to maturity on a government bond) is only a "least risk" alternative that is itself subject to risk. In this development, the effects of tax codes on required returns are ignored.

<sup>2</sup>Many leading texts in financial management use such historical risk premia to estimate a market return. See, for example, Brealey and Myers [3]. Often a market risk premium is adjusted for the observed relative risk of a stock.

mance. Without a ready source for measuring such expectations, application of the DCF model is fraught with difficulties. This paper uses published FAF of long-run growth in earnings as a proxy for  $g$ .

## B. Data

FAF for this research come from IBES (Institutional Broker's Estimate System), which is a product of Lynch, Jones, and Ryan, a major brokerage firm.<sup>5</sup> Representative of industry practice, IBES contains estimates of (i) EPS for the upcoming fiscal years (up to five separate years), and (ii) a five-year growth rate in EPS. Each item is available at monthly intervals.

The mean value of individual analysts' forecasts of five-year growth rate in EPS will be used as a proxy for  $g$  in the DCF model.<sup>6</sup> The five-year horizon is the longest horizon over which such forecasts are available from IBES and often is the longest horizon used by analysts. IBES requests "normalized" five-year growth rates from analysts in order to remove short-term distortions that might stem from using an unusually high or low earnings year as a base.

Dividend and other firm-specific information come from COMPUSTAT. Interest rates (both government and corporate) are gathered from Federal Reserve Bulletins and *Moody's Bond Record*. Exhibit 1 describes key variables used in the study. Data collected cover all dividend paying stocks in the Standard & Poor's 500 stock (S&P 500) index, plus approximately 100 additional stocks of regulated companies. Since five-year growth rates are first available from IBES beginning in 1982, the analysis covers the 113-month period from January 1982 to May 1991.

## III. Risk Premia and Required Rates of Return

### A. Construction of Risk Premia

For each month, a "market" required rate of return is calculated using each dividend paying stock in the S&P 500 index for which data are available. The DCF model in

### Exhibit 1. Variable Definitions

$k$	=	Equity required rate of return.
$P_0$	=	Average daily price per share.
$D_1$	=	Expected dividend per share measured as current indicated annual dividend from COMPUSTAT multiplied by $(1 + g)$ . <sup>a</sup>
$g$	=	Average financial analysts' forecast of five-year growth rate in earnings per share (from IBES).
$i_{lt}$	=	Yield to maturity on long-term U.S. government obligations (source: Federal Reserve Bulletin, constant maturity series).
$i_c$	=	Yield to maturity on long-term corporate bonds: Moody's average. <sup>b</sup>
$rp$	=	Equity risk premium calculated as $rp = k - i$ .
$\beta$	=	beta, calculated from CRSP monthly data over 60 months.

#### Notes:

<sup>a</sup>See footnote 7 for a discussion of the  $(1 + g)$  adjustment.

<sup>b</sup>The average corporate bond yield across bond rating categories as reported by Moody's. See *Moody's Bond Survey* for a brief description and the latest published list of bonds included in the bond rating categories.

Equation (2) is applied to each stock and the results weighted by market value of equity to produce the market required return.<sup>7</sup> The return is converted to a risk premium

<sup>7</sup>The construction of  $D_1$  is controversial since dividends are paid quarterly and may be expected to change during the year; whereas, Equation (2), as is typical, is being applied to annual data. Both the quarterly payment of dividends (due to investors' reinvestment income before year's end, see Linke and Zumwalt [15]) and any growth during the year require an upward adjustment of the current annual rate of dividends to construct  $D_1$ . If quarterly dividends grow at a constant rate, both factors could be accommodated straightforwardly by applying Equation (2) to quarterly data with a quarterly growth rate and then annualizing the estimated quarterly required return. Unfortunately, with lumpy changes in dividends, the precise nature of the adjustment depends on both an individual company's pattern of growth during the calendar year and an individual company's required return (and hence reinvestment income in the risk class).

In this work,  $D_1$  is calculated as  $D_0 (1 + g)$ . The full  $g$  adjustment is a crude approximation to adjust for both growth and reinvestment income. For example, if one expected dividends to have been raised, on average, six months ago, a "1/2  $g$ " adjustment would allow for growth, and the remaining "1/2  $g$ " would be justified on the basis of reinvestment income. Any precise accounting for both reinvestment income and growth would require tracking each company's dividend change history and making explicit judgments about the quarter of the next change. Since no organized "market" forecast of such a detailed nature exists, such a procedure is not possible. To get a feel for the magnitudes involved, during the sample period the dividend yield ( $D_1/P_0$ ) and growth (market value weighted) for the S&P 500 were typically 4% to 6% and 11% to 13%, respectively. As a result, a "full  $g$ " adjustment on average increases the required return by 60 to 70 basis points (relative to no  $g$  adjustment).

<sup>5</sup>Harris [12] provides a discussion of IBES data and its limitations. In more recent years, IBES has begun collecting forecasts for each of the next five years. Since this work was completed, the FAF used here have become available from IBES Inc., now a subsidiary of CitiBank.

<sup>6</sup>While the model calls for expected growth in dividends, no source of data on such projections is readily available. In addition, in the long run, dividend growth is sustainable only via growth in earnings. As long as payout ratios are not expected to change, the two growth rates will be the same.

**Exhibit 2. Bond Market Yields, Equity Required Return, and Equity Risk Premium,<sup>a</sup> 1982-1991**

Year	Bond Market Yields <sup>b</sup>		Equity Market Required Return <sup>c</sup>	Equity Risk Premium	
	(1) U.S. Gov't	(2) Moody's Corporates		U.S. Gov't (3) - (1)	Moody's Corporates (3) - (2)
1982	12.92	14.94	20.08	7.16	5.14
1983	11.34	12.78	17.89	6.55	5.11
1984	12.48	13.49	17.26	4.78	3.77
1985	10.97	12.05	16.32	5.37	4.28
1986	7.85	9.71	15.09	7.24	5.38
1987	8.58	9.84	14.71	6.13	4.86
1988	8.96	10.18	15.37	6.41	5.19
1989	8.46	9.66	15.06	6.60	5.40
1990	8.61	9.77	15.69	7.08	5.92
1991 <sup>d</sup>	8.21	9.41	15.61	7.40	6.20
Average <sup>e</sup>	9.84	11.18	16.31	6.47	5.13

**Notes:**<sup>a</sup>Values are averages of monthly figures in percent.<sup>b</sup>Yields to maturity.<sup>c</sup>Required return on value weighted S&P 500 index using Equation (1).<sup>d</sup>Figures for 1991 are through May.<sup>e</sup>Months weighted equally.

over government bonds by subtracting  $i_{lt}$ , the yield to maturity on long-term government bonds. A risk premium over corporate bond yields is also constructed by subtracting  $i_c$ , the yield on long-term corporate bonds. Exhibit 2 reports the results by year (averages of monthly data).

The results are quite consistent with the patterns reported earlier (i.e., Harris [12]). The estimated risk premia in Exhibit 2 are positive, consistent with equity owners demanding additional rewards over and above returns on debt securities. The average expectational risk premium (1982 to 1991) over government bonds is 6.47%, only slightly higher than the 6.16% average for 1982 to 1984 reported earlier (Harris [12]). Furthermore, Exhibit 2 shows the estimated risk premia change over time, suggesting changes in the market's perception of the incremental risk of investing in equity rather than debt securities.

For comparison purposes, Exhibit 3 contains historical returns and risk premia. The average expectational risk premium reported in Exhibit 2 falls roughly midway between the arithmetic (7.5%) and geometric (5.7%) long-term differentials between returns on stocks and long-term government bonds. Note, however, that the expectational risk premia appear to change over time. In the following

sections, we examine the estimated risk premia to see if they vary cross-sectionally with the risk of individual stocks and over time with financial market conditions.

**B. Cross-Sectional Tests**

Earlier, Harris [12] conducted crude tests of whether expectational equity risk premia varied with risk proxied by bond ratings and the dispersion of analysts' forecasts and found that required returns increased with higher risk. Here we examine the link between these premia and beta, perhaps the most commonly used measure of risk for equities.<sup>8</sup> In keeping with traditional work in this area, we adopt the methodology introduced by Fama and Macbeth [9] but replace realized returns with expected returns from Equation (2) as the variable to be explained. For this portion of our tests, we restrict our sample to 1982-1987

<sup>8</sup>For other efforts using expectational data in the context of the two-parameter CAPM, see Friend, Westerfield, and Granito [10], Cragg and Malkiel [7], Marston, Crawford, and Harris [19], Marston and Harris [20], and Linke, Kannan, Whitford, and Zumwalt [16]. For a more complete treatment of the subject, see Marston and Harris [20] from which we draw some of these results. Marston and Harris also investigate the role of unsystematic risk and the difference in estimates found when using expected versus realized returns.

**Exhibit 3.** Average Historical Returns on Bonds, Stocks, Bills, and Inflation in the U.S., 1926-1989

Historical Return Realizations	Geometric	Arithmetic
Common stock	10.3%	12.4%
Long-term government bonds	4.6%	4.9%
Long-term corporate bonds	5.2%	5.5%
Treasury bills	3.6%	3.7%
Inflation rate	3.1%	3.2%

Source: Ibbotson Associates, Inc., *1990 Stocks, Bonds, Bills and Inflation*, 1990 Yearbook.

and in any month include firms that have at least three forecasts of earnings growth to reduce measurement error associated with individual forecasts.<sup>9</sup> This restricted sample still consists of, on average, 399 firms for each of the 72 months (or 28,744 company months).

For a given company in a given month, beta is estimated via the market model (using ordinary least squares) on the prior 60 months of return data taken from CRSP. Beta estimates are updated monthly and are calculated against an equally weighted index of all NYSE securities. For each month, we aggregate firms into 20 portfolios (consisting of approximately 20 securities each). The advantage of grouped data is the reduction in potential measurement error inherent in independent variables at the company level. Portfolios are formed based on a ranking of beta estimated from a prior time period ( $t = -61$  to  $t = -120$ ). Portfolio expected returns and beta are calculated as the simple averages for the individual securities.

Using these data, we estimate the following model for each of the 72 months:

$$R_p = \alpha_0 + \alpha_1 \beta_p + u_p, \quad p = 1 \dots 20, \quad (3)$$

where:

- $R_p$  = Expected return for portfolio  $p$  in the given month,
- $\beta_p$  = Portfolio beta, estimated over 60 prior months, and
- $u_p$  = A random error term with mean zero.

As a result of estimating regression (3) for each month, 72 estimates of each coefficient ( $\alpha_0$  and  $\alpha_1$ ) are obtained.

Using realized returns as the dependent variable, the traditional approach (e.g., Fama and Macbeth [9]) is to assume that realized returns are a fair game. Given this assumption, the mean of the 72 values of each coefficient is an unbiased estimate of the mean over that same time period if one could have actually used expected returns as the dependent variable. Note that if expected returns are used as the dependent variable the fair-game assumption is not required. Making the additional assumption that the true value of the coefficient is constant over the 72 months, a test of whether the mean coefficient is different from zero is performed using a  $t$ -statistic where the denominator is the standard error of the 72 values of the coefficient. This is the technique employed by Fama and Macbeth [9]. If one assumes the CAPM is correct, the coefficient  $\alpha_1$  is an empirical estimate of the market risk premium, which should be positive.

To test the sensitivity of the results, we also repeat our procedures using individual security returns rather than portfolios. To account, at least in part, for differences in precision of coefficient estimates in different months we also report results in which monthly parameter estimates are weighted inversely by the standard error of the coefficient estimate rather than being weighted equally (following Chan, Hamao, and Lakonishok [6]).

Exhibit 4 shows that there is a significant positive link between expectational required returns and beta. For instance, in Panel A, the mean coefficient of 2.78 on beta is significantly different from zero at better than the 0.001 level ( $t = 35.31$ ), and each of the 72 monthly coefficients going into this average is positive (as shown by that 100% positive figure). Using individual stock returns, the significant positive link between beta and expected return remains, though it is smaller in magnitude than for portfolios.<sup>10</sup> Comparison of Panels A and B shows that the results are not sensitive to the weighting of monthly coefficients.

While the findings in Exhibit 4 suggest a strong positive link between beta and risk premia (a result often not supported when realized returns are used as a proxy for expectations; e.g., see Tinic and West [22]), the results do not support the predictions of a simple CAPM. In particular, the intercept is higher than a proxy for the risk-free rate over the sample period and the coefficient of beta is well below estimates of a market risk premium obtained from either expectational (Exhibit 2) or historical data (Exhibit

<sup>9</sup>Firms for which the standard deviation of individual FAF exceeded 20 in any month were excluded since we suspect some of these involve errors in data entry. This screen eliminated very few companies in any month. The 1982-1987 period was chosen due to the availability of data on betas.

<sup>10</sup>The smaller coefficients on beta using individual stock portfolio returns are likely due in part to the higher measurement error in measuring individual stock versus portfolio betas.



**Exhibit 4. Mean Values of Monthly Parameter Estimates for the Relationship Between Required Returns and Beta for Both Portfolios and Individual Securities (Figures in Parentheses are *t* Values and Percent Positive), 1982-1987**

<i>Panel A. Equal Weighting<sup>a</sup></i>				
	Intercept	B	Adjusted $R^2$ <sup>c</sup>	F <sup>c</sup>
Portfolio returns	14.06 (54.02, 100)	2.78 (35.31, 100)	0.503	25.4
Security returns	14.77 (58.10, 100)	1.91 (16.50, 99)	0.080	39.0
<i>Panel B. Weighted by Standard Errors<sup>b</sup></i>				
Portfolio returns	13.86 (215.6, 100)	2.67 (35.80, 100)	0.503	25.4
Security returns	14.63 (398.9, 100)	1.92 (47.3, 99)	0.080	39.0

<sup>a</sup>Equally weighted average of monthly parameters estimated using cross-sectional data for each of the 72 months, January 1982 - December 1987.

<sup>b</sup>In obtaining the reported means, estimates of the monthly intercept and slope coefficients are weighted inversely by the standard error of the estimate from the cross-sectional regression for that month.

<sup>c</sup>Values are averages for the 72 monthly regressions.

3).<sup>11</sup> Nonetheless, the results show that the estimated risk premia conform to the general theoretical relationship between risk and required return that is expected when investors are risk-averse.

### C. Time Series Tests — Changes in Market Risk Premia

A potential benefit of using ex ante risk premia is the estimation of changes in market risk premia over time. With changes in the economy and financial markets, equity investments may be perceived to change in risk. For instance, investor sentiment about future business conditions likely affects attitudes about the riskiness of equity investments compared to investments in the bond markets. Moreover, since bonds are risky investments themselves, equity risk premia (relative to bonds) could change due to changes in perceived riskiness of bonds, even if equities displayed no shifts in risk. For example, during the high interest rate period of the early 1980s, the high level of interest rate volatility made fixed income investments more risky holdings than they were in a world of relatively stable rates.

<sup>11</sup>Estimation difficulties confound precise interpretation of the intercept as the risk-free rate and the coefficient on beta as the market risk premium (see Miller and Scholes [21], and Black, Jensen, and Scholes [2]). The higher than expected intercept and lower than expected slope coefficient on beta are consistent with the prior studies of Black, Jensen, and Scholes [2], and Fama and MacBeth [9] using historical returns. Such results are consistent with Black's [1] zero beta model, although alternative explanations for these findings exist as well (as noted by Black, Jensen, and Scholes [2]).

Studying changes in risk premia for utility stocks, Brigham, et al [4] conclude that, prior to 1980, utility risk premia increased with the level of interest rates, but that this pattern reversed thereafter, resulting in an inverse correlation between risk premia and interest rates. Studying risk premia for both utilities and the equity market generally, Harris [12] also reports that risk premia appear to change over time. Specifically, he finds that equity risk premia decreased with the level of government interest rates, increased with the increases in the spread between corporate and government bond yields, and increased with increases in the dispersion of analysts' forecasts. Harris' study is, however, restricted to the 36-month period, 1982 to 1984.

Exhibit 5 reports results of analyzing the relationship between equity risk premia, interest rates, and yield spreads between corporate and government bonds. Following Harris [12], these bond yield spreads are used as a time series proxy for equity risk. As the perceived riskiness of corporate activity increases, the difference between yields on corporate bonds and government bonds should increase. One would expect the sources of increased riskiness to corporate bonds to also increase risks to shareholders. All regressions in Exhibit 5 are corrected for serial correlation.<sup>12</sup>

<sup>12</sup>Ordinary least squares regressions showed severe positive autocorrelation in many cases, with Durbin Watson statistics typically below one. Estimation used the Prais-Winsten method. See Johnston [14, pp. 321-325].

**Exhibit 5.** Changes in Equity Risk Premia Over Time — Entries are Coefficient (*t*-value); Dependent Variable is Equity Risk Premium

Time period	Intercept	$i_{it}$	$i_{ct} - i_{it}$	$R^2$
A. May 1991-1992 8	0.131 (19.82)	-0.651 (-11.16)		0.53
	0.092 (14.26)	-0.363 (-6.74)	0.666 (5.48)	0.54
	0.140 (8.15)	-0.637 (-5.00)		0.43
B. 1982-1984	0.064 (3.25)	-0.203 (-1.63)	1.549 (4.84)	0.60
	0.131 (7.73)	-0.739 (-9.67)		0.74
C. 1985-1987	0.110 (12.53)	-0.561 (-7.30)	0.317 (1.87)	0.77
	0.136 (16.23)	-0.793 (-8.29)		0.68
D. 1988-1991	0.130 (8.71)	-0.738 (-4.96)	0.098 (0.40)	0.68

Note: All variables are defined in Exhibit 1. Regressions were estimated using monthly data and were corrected for serial correlation using the Prais-Winsten method. For purposes of this regression, variables are expressed in decimal form, e.g., 14% = 0.14.

For the entire sample period, Panel A shows that risk premia are negatively related to the level of interest rates — as proxied by yields on government bonds,  $i_{it}$ . This negative relationship is also true for each of the subperiods displayed in Panels B through D. Such a negative relationship may result from increases in the perceived riskiness of investment in government debt at high levels of interest rates. A direct measure of uncertainty about investments in government bonds would be necessary to test this hypothesis directly.

For the entire 1982 to 1991 period, the addition of the yield spread risk proxy to the regressions dramatically lowers the magnitude of the coefficient on government bond yields, as can be seen by comparing Equations 1 and 2 of Panel A. Furthermore, the coefficient of the yield spread (0.666) is itself significantly positive. This pattern suggests that a reduction in the risk differential between investment in government bonds and in corporate activity is translated into a lower equity market risk premium. Further examination of Panels B through D, however, suggests that the yield spread variable is much more important in explaining changes in equity risk premia in the early portion of the 1980s than in the 1988 to 1991 period.

In summary, market equity risk premia change over time and appear inversely related to the level of government interest rates but positively related to the bond yield spread, which proxies for the incremental risk of investing in equities as opposed to government bonds.

#### IV. Conclusions

Shareholder required rates of return and risk premia are based on theories about investors' expectations for the future. In practice, however, risk premia are often estimated using averages of historical returns. This paper applies an alternate approach to estimating risk premia that employs publicly available expectational data. At least for the decade studied (1982 to 1991), the resultant average market equity risk premium over government bonds is comparable in magnitude to long-term differences (1926 to 1989) in historical returns between stocks and bonds. There is strong evidence, however, that market risk premia change over time and, as a result, use of a constant historical average risk premium is not likely to mirror changes in investor return requirements. The results also show that the expectational risk premia vary cross-sectionally with the relative risk (beta) of individual stocks.

The approach offers a straightforward and powerful aid in establishing required rates of return either for corporate investment decisions or in the regulatory arena. Since data are readily available on a wide range of equities, an investigator can analyze various proxy groups (e.g., portfolios of utility stocks) appropriate for a particular decision as well as analyze changes in equity return requirements over time.

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FINANCE**

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**2006  
PUBLIC UTILITIES REPORTS, INC.  
Vienna, Virginia**

## New Regulatory Finance

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Any forward-looking cost of capital calculation already embodies tax effects since investors price securities on the basis of after-tax returns. Besides, a very large proportion of trading is conducted by tax-exempt financial institutions (pension funds, mutual funds, 401K, etc.) for whom tax issues are largely immaterial.

The existence of a negative risk premium is highly unlikely, as it is at serious odds with the basic tenets of finance, economics, and law. Using proper definitions for expected rates of return of equity and debt, the preponderance of the evidence indicates that the negative risk premium does not exist. Several risk premium studies cited in this chapter have found positive risk premiums well in excess of 5% over the last decade. Risk premiums do narrow during unusually turbulent and volatile interest rate environments, but then return to normal levels. They are most unlikely to ever become negative.

### 4.7 Risk Premium Determinants

Fundamentally, the primary determinant of expected returns is risk. To wit, the various paradigms of financial theory, including the Capital Asset Pricing Model and the Arbitrage Pricing Model covered in subsequent chapters, posit fundamental relationships between return and risk. There are also secondary influences on the relative magnitude of the risk premium, however, including the level of interest rates, default risk, and taxes.

#### Interest Rates

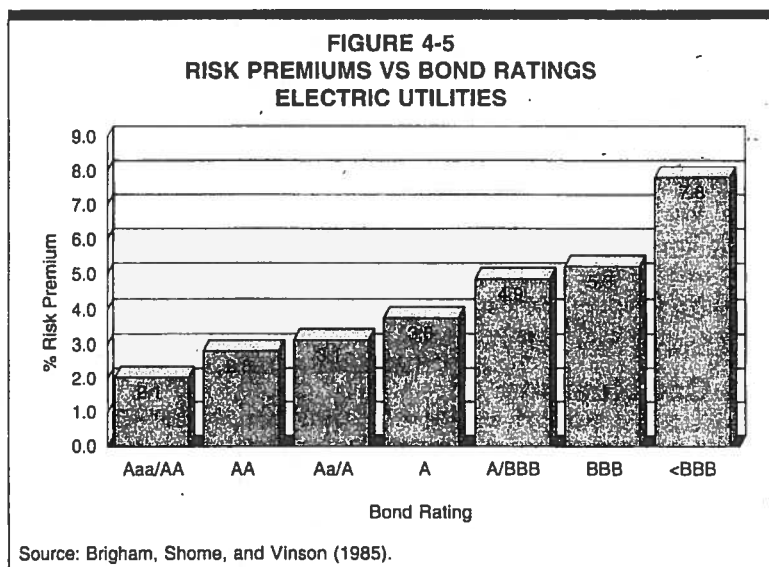
Published studies by Brigham, Shome, and Vinson (1985), Harris (1986), Harris and Marston (1992, 1993), Carleton, Chambers, and Lakonishok (1983), Morin, (2005), and McShane (2005), and others demonstrate that, beginning in 1980, risk premiums varied inversely with the level of interest rates—rising when rates fell and declining when interest rates rose. The reason for this relationship is that when interest rates rise, bondholders suffer a capital loss. This is referred to as interest rate risk. Stockholders, on the other hand, are more concerned with the firm's earning power. So, if bondholders' fear of interest rate risk exceeds shareholders' fear of loss of earning power, the risk differential will narrow and hence the risk premium will shrink. This is particularly true in high inflation environments. Interest rates rise as a result of accelerating inflation, and the interest rate risk of bonds intensifies more than the earnings risk of common stocks, which are partially hedged from the ravages of inflation. This phenomenon has been termed as a "lock-in" premium. Conversely in low interest rate environments, when bondholders' interest rate fears subside and shareholders' fears of loss of earning power dominate, the risk differential will widen and hence the risk premium will increase.

## Chapter 4: Risk Premium

Harris (1986) showed that for every 100 basis point change in government bond yields, the equity risk premium for utilities changes 51 basis points in the opposite direction, for a net change in the cost of equity of 49 basis points. For example, a 100 basis point decline in government bond yields would lead to a 51 basis point increase in the equity risk premium and therefore an overall decrease in the cost of equity of 49 basis points, a result almost identical to the estimate reported in Morin (2005). As discussed earlier, similar results were uncovered by McShane (2005), who examined the statistical relationship between DCF-derived risk premiums and interest rates using a sample of natural gas distribution utilities.

The gist of the empirical research on this subject is that the cost of equity has changed only half as much as interest rates have changed in the past. The knowledge that risk premiums vary inversely to the level of interest rates can be used to adjust historical risk premiums to better reflect current market conditions. Thus, when interest rates are unusually high (low), the appropriate current risk premium is somewhat below (above) that long-run average. The empirical research cited above provides guidance as to the magnitude of the adjustment.

Risk premiums also tend to fluctuate with changes in investor risk aversion. Such changes can be tracked by observing the yield spreads between different bond rating categories over time. Brigham, Shome, and Vinson (1985) examined the relationship between risk premium and bond rating and found, unsurprisingly, that the risk premiums are higher for lower rated firms than for higher rated firms. Figure 4-5 shows the results graphically.



## Chapter 4: Risk Premium

to the DCF method, which may be sluggish in detecting changes in return requirements, especially when based on historical data.

One advantage of risk premium over DCF is that the former is a period-by-period (time-series) study of the cost of equity over the cost of debt, in contrast to the latter which is a point-in-time cross-sectional estimate. In other words, the risk premium approach takes a broader time-series perspective rather than a snapshot point-in-time viewpoint, and is therefore less vulnerable to the vagaries of any one particular capital market environment. A prospective risk premium test relies on a succession of DCF observations over long periods, and is not as vulnerable to a given capital market environment as a spot DCF test.

Of course, the estimation of the appropriate risk premium for either the equity market as a whole or for a specific utility company, is not an exact science. Therefore, it is necessary to evaluate a broad spectrum of data and apply alternative risk premium estimation approaches in order to derive a fair and reasonable estimate of the required equity risk premium. Equal emphasis should be accorded to risk premium results based on history and those based on prospective data. Each proxy for expected risk premium brings information to the judgment process from a different light. Neither proxy is without blemish, each has advantages and shortcomings. Historical risk premiums over long periods are available and verifiable, but may no longer be applicable if structural shifts have occurred. Prospective risk premiums may be more relevant since they encompass both history and current changes, but are nevertheless imperfect proxies and are subject to measurement error and to the vagaries of the DCF input proxies.

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# Common Equity Flotation Costs and Rate Making

By EUGENE F. BRIGHAM, DANA ABERWALD, and LOUIS C. GAPENSKI

The proper treatment of common stock flotation costs is an issue in almost every utility rate case, and becomes increasingly important – for reasons shown in this article – as new stock offerings decline. The article provides clarification of the issue and offers a reasonable solution.

Incorrect statements have been made about the proper treatment of common equity flotation costs in the financial literature, and this has contributed to incorrect rate case testimony and to several improper decisions. The problem seems to have arisen for two reasons: (1) During the 1970s, when most utilities were raising large amounts of equity, the case for an equity cost adjustment was generally based on the need to sell common stock at prices greater than book value so as to avoid dilution when new stock was sold, but the proper rationale for the adjustment, and the argument that should have been made, is that an adjustment is necessary to recover actual incurred costs. (2) A number of academic writers [1, 2, 3, 6, 7, 8, 11]<sup>1</sup> have attempted to deal with the problem algebraically, and while a mathematical approach has merit, the different authors based their models on different and somewhat obscure assumptions, with the result that the academic research has actually done more to confuse than to clarify the issue.

As we see it, there are two questions which need answers:

- 1) Is an adjustment needed even if a company has no plans to sell new common stock in the foreseeable future?
- 2) If an adjustment is required, should it be applied to common stock only or to total common equity (common stock plus retained earnings)?

The answers are "yes" to the first question and "total common equity" to the second. Specifically, the market-

<sup>1</sup>Numbers in brackets correspond to numbers in the list of references at the end of the article.

determined cost of equity should be adjusted (increased) to reflect issuance costs associated with past issues regardless of whether a company plans to issue stock in the future or not, and the adjustment should be applied to the total common equity, including retained earnings. The reasons for these conclusions are set forth in the balance of this article.

## Background and Approach

The flotation cost adjustment – whether for bonds, preferred stocks, or common equity – is designed to convert a market rate of return into a fair rate of return on accounting book values. Prior to the 1970s, most utilities were regulated on the basis of the comparable earnings approach. With that method no market return was involved, and hence there was no need for a common equity flotation adjustment. However, as use of market-oriented equity cost approaches, especially the discounted cash flow (DCF) method, became prevalent during the 1970s, a specific flotation adjustment became necessary. The first use of DCF, to the authors' knowledge, was by Professor Myron J. Gordon as a staff witness in an American Telephone and Telegraph Company rate case before the Federal Communications Commission in the mid-1960s. Professors Alexander A. Robichek and Ezra Solomon of Stanford University, testifying for AT&T, proved that if a commission correctly identifies and then allows a company to earn its DCF cost of equity,  $k$ , on book equity, then investors will never be able to earn  $k$  on their investment, because the capital that investors have put up will exceed the company's book equity as a result of issuance (or flotation) costs. Thus, in the very first

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case where DCF methodology was used, Robichek and Solomon proved, and Gordon accepted, the idea that the allowed return on equity should exceed the DCF cost. Unfortunately, only the need for an adjustment, not the proper adjustment mechanism itself, was identified in that rate case.

The DCF method's great increase in popularity occurred during the 1970s, just when the companies were raising unprecedented amounts of new equity capital. Witnesses who used the DCF method recognized the need for an adjustment, and they had to provide a rationale to commissioners. Most witnesses gave this explanation:

- 1) If a company were allowed to earn only its DCF cost of equity, then its stock would normally sell at book value.
- 2) When new stock was issued, flotation expenses plus market pressure would drive the price of the stock below book value.
- 3) The issuance of stock at below book value would dilute the book value of the existing shares, and since future earnings and dividends are dependent upon book value, the market value of existing stock would also be diluted.
- 4) This dilution would obviously harm current stockholders; indeed, it would amount to economic confiscation.
- 5) Therefore, fair regulation requires commissioners to set authorized returns high enough to cause utility stocks to sell at prices that exceed book value by an amount sufficient to prevent below-book sales.

This argument was correct, although incomplete, and it was generally accepted during the 1970s, when most utilities were selling new stock every year or two. There were, of course, arguments about the level of flotation costs and the extent of market pressure, and hence about the proper market-to-book ratio, but the logic of some type of adjustment was rarely questioned.

However, as many utilities' construction programs neared completion in the early 1980s, and, accordingly, as new stock offerings slowed, the issue of the need for a flotation adjustment resurfaced. Patterson [6, 7] applied standard corporate finance techniques and concluded that a flotation adjustment is needed irrespective of current equity sales. Richter [11] supported Patterson's position. Arzac and Marcus [1, 2] also concluded that a flotation adjustment is always needed, but their formula produces an almost trivial adjustment factor unless the company is selling very large amounts of stock every year. Patterson and Arzac-Marcus debated in the finance journals, but they reached no reconciliation. Finally, in the latest article, Professors Bierman and Hass [3] derived yet another formula, one which produces an adjustment factor between those recommended by Patterson and Arzac-Marcus.

The issue is important, so it is necessary that we resolve the conflict. Further, since utility executives and regulators, not financial economists, must make decisions in this area, the resolution must be understandable to these decision makers. After studying the

problem, we concluded that the best way to approach a clear resolution is to set up some hypothetical, but reasonable, situations and then to test the alternative theories, asking the following question: What results do the several methods produce, and are those results fair to both consumers and investors?

### Bonds and Preferred Stocks

Because the proper treatment of flotation costs on bonds and preferred stocks is well known and not controversial, it helps to begin by examining that treatment as a lead-in to the analysis of common stock. First, note that debt flotation costs can be recovered in either of two ways: (1) They can be expensed and recovered from customers during the year the securities are sold, or (2) They can be capitalized and recovered over the life of the securities. The second method, which is consistent with the theory that those customers who benefit from a cost should pay for it, is generally used. Under this theory, bond flotation expenses are reflected in the embedded cost of the bond and are recovered over the life of the bond. For example, if flotation costs of 5 per cent were incurred on a \$100 million, ten-year, 15 per cent coupon bond issue, they would be handled in the following manner by most federal and state regulators:

$$\begin{aligned} \text{Cost to company} &= \frac{\text{Interest expense} + \text{Amortization of flotation costs}}{\text{Principal value} - \text{Unamortized flotation costs}} \quad (1) \\ &= \frac{\$15,000,000 + (\$5,000,000/10)}{\$100,000,000 - \$5,000,000} \\ &= \frac{\$15,500,000}{\$95,000,000} = 16.3158\% \text{ for the first year} \end{aligned}$$

Return requirements would be calculated as follows:

$$\begin{aligned} \text{Return requirements} &= \text{Cost rate}(\text{Principal value} - \text{Unamortized flotation costs}) \quad (2) \\ &= 0.163158(\$100,000,000 - \$5,000,000) \\ &= \$15,500,000. \end{aligned}$$

In this example, the company received \$95 million of cash, which it used to purchase \$95 million of operating assets. To meet its interest expense and flotation amortization requirements, the company must have \$15.5 million in return dollars. This return will only be generated if the company earns 16.3158 per cent on its \$95 million of operating assets. Under this procedure, the percentage cost as calculated in Equation 1 declines each year, but the return dollar amount remains constant.<sup>2</sup>

<sup>2</sup>An alternative procedure that produces exactly the same result is to divide interest charges plus flotation amortization by the principal value of the issue, and then to multiply this cost rate by the principal value of the issue:

$$\text{Embedded cost rate} = \frac{\$15,500,000}{\$100,000,000} = 0.155 = 15.5\%$$

$$\text{Return requirements} = 0.155(\$100,000,000) = \$15,500,000$$

This procedure in effect includes both flotation costs and operating assets in the rate base.

Preferred stocks are handled similarly. Actually, utilities issue two types of preferred stocks, those with sinking funds and those that are perpetual. The adjustment formula for sinking fund preferred is exactly like that for bonds, but a difference arises in the case of perpetual preferreds. Perpetual preferred stock represents permanent capital; hence its flotation costs are not amortized.<sup>3</sup> Assuming again a \$100 million issue and a 5 per cent flotation cost, this formula applies:

$$\text{Cost to company} = \frac{\text{Dividend requirements}}{\text{Net proceeds}} = \frac{\$15,000,000}{\$95,000,000} \quad (3)$$

$$= 15.7895\%$$

Alternatively, we could write the formula as follows:

$$\text{Cost to company} = \frac{\text{Dividend rate}}{1.0 - \text{Flotation}} = \frac{15\%}{0.95} = 15.7895\% \quad (3a)$$

The return dollars can then be calculated as follows:<sup>4</sup>

$$\begin{aligned} \text{Dollars of return} &= 0.157895(\$95,000,000) \\ &= \$15,000,000 \end{aligned}$$

In this example, the preferred stockholders expect and require a return of 15 per cent on *their investment* (\$100 million), but the company must earn 15.7895 per cent on *its operating assets* (\$95 million) to provide this required return.<sup>5</sup> If the company earned only 15 per cent on the \$95 million, then the company would have after-tax revenues of only \$14,250,000 to meet investors' preferred dividend requirements of \$15 million. Obviously, then, the 15 per cent market value cost of preferred must be adjusted upward to a 15.7895 per cent return on the company's operating assets if investors are to receive the reasonable rate of return they contracted for.

### Common Stock

From a conceptual standpoint, it has long been recognized that the situation with common stock is similar to that for bonds and preferred stocks: Issuance costs are incurred; they should not be and are not expensed at the time the stock is sold; and therefore recovery must occur in subsequent years. Further, just as with bonds and preferred stock, the authorized rate of return on rate base equity must be above the rate of return to the investor; that is, the cost to the utility is above the return to the investor. The standard text-

<sup>3</sup>In effect, the flotation costs of the preferred are amortized over an infinite period, which is to say the amortization per year is zero. Investors have made a *permanent* investment, so the original investors or those who purchase the stock in the secondary market must receive a return on that investment in perpetuity.

<sup>4</sup>Of course, preferred stock dividends are not deductible, so the total revenues required to produce the return dollars is higher for preferred stock than for debt.

<sup>5</sup>Note that the return dollars for the bond exceed those for the perpetual preferred stock - \$15.5 million versus \$15 million. However, these are first-year costs only. The bond's cost rate declines over time due to the amortization of its flotation costs, whereas the cost rate associated with the preferred stock remains constant, and the rates of return to the bondholders and the preferred stockholders are identical.

book formula, which Patterson [6] used, is as follows:<sup>6</sup>

$$r = \frac{\text{Expected dividend yield}}{1.0 - F} + g \quad (5)$$

Here:

$r$  = authorized rate of return on book equity, if stockholders are to earn their required rate of return,  $k$ ,

$F$  = percentage flotation cost associated with common stock offerings, and

$g$  = the expected growth rate in earnings and dividends.

The percentage flotation factor,  $F$ , consists of two elements: (1) underwriting costs and (2) "market pressure," which is the decline in the stock price that results when the supply of shares is suddenly increased. Historically, utility underwriting expenses have averaged from 3 to 4 per cent of gross proceeds [9]. Market pressure varies over time, depending on the size of the issue, the condition of the market, and the degree to which investors were surprised by the announcement of the stock sale. Moreover, stock prices change for reasons other than new offerings, so it is difficult to obtain an exact measure of market pressure. However, several careful studies have been reported, and they indicate that market pressure is in the range of one to 3 per cent [10]. Thus, for most utilities, flotation expenses plus pressure have totaled about 5.5 per cent.

To illustrate the flotation cost adjustment process, and following Bierman and Hass for consistency, we assume that a new, start-up utility has the following characteristics:

- 1) Our hypothetical company can sell stock in the market at \$10 per share, and investors expect it to pay a dividend of one dollar and to grow at a rate of 5 per cent. Thus, its DCF cost of equity is  $k = D/P + g = 10\% + 5\% = 15\%$ , investors' required rate of return.
- 2) To raise initial capital, the company plans to sell an issue of stock, incurring flotation costs of  $F = 5$  per cent.
- 3) Applying Equation 5, we obtain a flotation-adjusted cost of equity ( $r$ ) of 15.5263 per cent:

$$r = \frac{\text{Expected dividend yield}}{1 - F} + g$$

$$= \frac{10.0\%}{0.95} + 5\%$$

$$= 10.5263\% + 5\% = 15.5263\%$$

Thus, the illustrative utility's fair rate of return on book equity according to Equation 5 is approximately 53 basis points above its 15 per cent unadjusted "bare bones DCF cost of equity."

- 4) The company will sell one share of stock and obtain net proceeds of \$9.50. This \$9.50 is also the initial book value,  $B$ , and rate base. (Obvi-

<sup>6</sup>This formula is developed in reference citation 5, Chapter 7, as well as in most other corporate finance textbooks.

ously, this amount, which we use for simplicity, could be scaled up without altering the conclusions.)

- 5) After its inception and initial stock offering, all of the company's equity is expected to come from retained earnings. In a later case, we will examine the situation when more stock is sold.
- 6) The company operates in a reasonable and prudent manner, such that by any fairness criteria, investors should be allowed to earn their 15 per cent cost of capital return, no more and no less. For simplicity, we also assume that regulation operates properly, without lags.
- 7) Initially, we assume that the market cost of capital remains constant at 15 per cent, and that the company maintains a constant payout ratio so as to keep the dividend yield and growth components at 10 per cent and 5 per cent, respectively. These assumptions are consistent with the

DCF model, but later in the article we expand the analysis by relaxing both of them.

Now these questions may be asked:

Should the flotation adjustment be applied to all common equity or, once retained earnings appear on the balance sheet, only to common stock?  
For how many years should an adjustment be applied: One, two, ten, twenty, or forever?

When we applied Equation 5, the textbook formula which Patterson recommended, we found that it produces results that satisfy the fairness criterion; namely, it permits investors to earn exactly their 15 per cent cost of capital, no more and no less. This result for our initial case is demonstrated in Table 1, which was produced by a simple computer model, and it is analyzed below:

**Table 1**

Case 1: Company Earns Flotation-adjusted Cost of Equity ( $r$ ) on All Common Equity  
Beginning of Year

Year	Common Stock (1)	Retained Earnings (2)	Total Equity (3)	Stock Price (4)	Market-Book Ratio (5)	EPS (6)	DPS (7)	Payout (8)
1	\$9.50	\$0.0000	\$ 9.5000	\$10.0000	1.0526x	\$1.4750	\$1.0000	67.7966%
2	9.50	0.4750	9.9750	10.5000	1.0526	1.5488	1.0500	67.7966
3	9.50	0.9738	10.4738	11.0250	1.0526	1.6262	1.1025	67.7966
4	9.50	1.4974	10.9974	11.5763	1.0526	1.7075	1.1576	67.7966
5	9.50	2.0473	11.5473	12.1551	1.0526	1.7929	1.2155	67.7966
6	9.50	2.6247	12.1247	12.7628	1.0526	1.8825	1.2763	67.7966
7	9.50	3.2309	12.7309	13.4010	1.0526	1.9766	1.3401	67.7966
8	9.50	3.8675	13.3675	14.0710	1.0526	2.0755	1.4071	67.7966
9	9.50	4.5358	14.0358	14.7746	1.0526	2.1792	1.4775	67.7966
10	9.50	5.2376	14.7376	15.5133	1.0526	2.2882	1.5513	67.7966

**NOTES**

- 1) Assumptions made in this case are as follows:
  - a) Issue price = \$10
  - b) Flotation cost = 5%
  - c)  $k = D/P + g = 10\% + 5\% = 15\%$
  - d)  $r = 15.5263\%$
- 2) The data in this case, and also the more complex cases, were developed with a Lotus 1-2-3 computer program.

- 1) The company's balance sheet item common stock is shown in Column 1.
- 2) Retained earnings are shown in Column 2. Initially, they are zero, but they build up over time.
- 3) Total equity as shown in Column 3 is the sum of common stock and retained earnings. Total equity grows as retained earnings build up.
- 4) Column 4 shows the stock price as determined by the basic DCF formula. It starts at \$10 and grows at a rate of 5 per cent per year, which is necessary to produce the 5 per cent capital gains yield that investors expect and should receive.<sup>7</sup>

<sup>7</sup>The DCF valuation equation is

$$P_0 = \frac{D_1}{k - g}$$

This equation, solved for  $k$ , produces the standard DCF cost of capital equation,  $k = D_1/P_0 + g$ . See reference citation 5, Chapter 5, for a derivation and discussion.

- 5) Column 5 shows the market-to-book (M/B) ratio. Notice that the M/B always exceeds one. The only way the M/B ratio could go to one would be for the stock price to fall below the value shown in Column 4, but if that were to happen, then investors would not receive the capital gains to which they are entitled. Thus, the M/B will exceed one if investors are being treated fairly.
- 6) Earnings per share (EPS) as shown in Column 6 is the product of total equity times 0.155263, the fair rate of return as determined by Equation 5.
- 7) Dividends per share (DPS) as shown in Column 7 begin at one dollar and grow at a rate of 5 per cent per year. This growth rate is a requirement if investors are to earn their DCF cost of capital.
- 8) The payout ratio is shown in Column 8. Under

the assumptions of the standard DCF constant growth model, the payout must be constant, and it is if  $r$  as determined by Equation 5 is used as the allowed return on equity.

- 9) Note also that book value per share as shown in Column 3 is growing at a constant rate, 5 per cent. The retention growth rate,  $g = br$ , where  $r$  is the return on book equity and  $b$  is the fraction of earnings, is

$$g = br = (1.0 - 0.677966)(15.5263) = 0.322(15.5263) = 5.0\%, \text{ just as it should be.}$$

Case 1 proves that Equation 5 produces the desired results; namely, returns that exactly cover the cost of equity, no more and no less. Any return on book equity different from that established by Equation 5 would produce inconsistent results. For example, suppose the authorized rate of return were cut from 15.5263 to the DCF return, 15 per cent, in Year 2. This would cause the stock price to drop from \$10.50 to the \$9.9750 book value. Thus, stockholders would suffer a loss, and they would not obtain the capital gains yield to which they are entitled. Any other type of experimentation will show exactly the same thing: If the company is not allowed to earn the cost of equity as determined by Equation 5 on total common equity, stockholders will not receive a 15 per cent return on their invested capital.

#### Sale of Additional Equity

While the only-one-equity-sale conditions used to develop Case 1 are consistent with Bierman and Hass's example, and also with some actual companies such as Comsat and the Yankee Atomic Power companies, most utilities sell additional common stock from time

to time. Therefore, we modified the computer model to analyze stock sales subsequent to the initial offering, and we report the results in Table 2 as Case 2, in which the company raises an additional share of new common equity for \$12.1247 at the beginning of Year 6. (Note that the \$12.1247 is calculated as the price of the stock at the beginning of Year 6 less flotation costs.) Earnings, dividends, and common equity all increase in Year 6 as a result of the sale, but investors continue to earn exactly 15 per cent on their investment so long as the company is allowed to earn 15.5263 per cent on its total book equity.

In Case 3, reported in Table 3, we present the results for a company that issues new equity at a flotation cost different from the cost of its original stock issue. Case 3 is similar to Case 2. Just as in Case 2, the company issues new equity at the beginning of Year 6. However, in Case 3, the equity sold at the beginning of Year 6 has a different flotation cost (3 per cent) from that of the original issue (5 per cent). With lower flotation costs, the company nets more common equity in Case 3 than in Case 2. (The dollar amount of new equity raised is calculated as the price of the share of stock at the beginning of Year 6 less the 3 per cent flotation costs incurred.)

In this example, because the new equity is sold at a different flotation cost than the old equity, a new value of  $r$  must be calculated and used to determine net income. The new  $r$  is a weighted average of  $r$  as determined by Equation 5 for each equity issue, with the weights being the fraction of total equity attributable to the new and old stock at the time the new stock is issued. Because of the lower flotation costs on the new equity, there is a corresponding drop in the market-to-book ratio in Year 6. Note, however, that after the transitional Year 6, earnings and dividends continue to grow at the required 5 per cent rate, which is neces-

Table 2

Case 2: Company Sells Additional Stock at the Beginning of Year 6  
Beginning of Year

Year	Common Stock (1)	New Issue (1a)	Retained Earnings (2)	Total Equity (3)	Stock Price (4)	Market-Book Ratio (5)	EPS (6)	DPS (7)	Payout Ratio (8)
1	\$ 9.50		\$0.0000	\$ 9.5000	\$10.0000	1.0526x	\$1.4750	\$1.0000	67.7966%
2	9.50		0.4750	9.9750	10.5000	1.0526	1.5488	1.0500	67.7966
3	9.50		0.9738	10.4738	11.0250	1.0526	1.6262	1.1025	67.7966
4	9.50		1.4974	10.9974	11.5763	1.0526	1.7075	1.1576	67.7966
5	9.50		2.0473	11.5473	12.1551	1.0526	1.7929	1.2155	67.7966
6	9.50	\$12.1247	2.6247	24.2493	12.7628	1.0526	1.8825	1.2763	67.7966
7	21.6247		3.8371	25.4618	13.4010	1.0526	1.9766	1.3401	67.7966
8	21.6247		5.1102	26.7349	14.0710	1.0526	2.0755	1.4071	67.7966
9	21.6247		6.4470	28.0717	14.7746	1.0526	2.1792	1.4775	67.7966
10	21.6247		7.8506	29.4752	15.5133	1.0526	2.2882	1.5513	67.7966

#### NOTES:

Assumptions made in this case are as follows:

a) Original issue price = \$10

b) Flotation cost = 5%

c)  $k = D/P + g = 10\% + 5\% = 15\%$

d)  $r = 15.5263\%$

e) Year 6 issue price = \$12.7628

f) Year 6 new common stock =  $\$12.7628(1 - F)$   
=  $\$12.7628(0.95)$   
= \$12.1247

**Table 3**

Case 3: Company Sells Additional Stock at the Beginning of  
Year 6 Incurring Different Flotation Costs

Beginning of Year									
Year	Common Stock (1)	New Issue (1a)	Retained Earnings (2)	Total Equity (3)	Stock Price (4)	Market- Book Ratio (5)	EPS (6)	DPS (7)	Payout Ratio (8)
1	\$ 9 5000		\$0 0000	\$ 9 5000	\$10 0000	1.0526x	\$1 4750	\$1 0000	67.7966%
2	9 5000		0 4750	9 9750	10 5000	1.0526	1 5488	1 0500	67.7966
3	9 5000		0 9738	10 4738	11 0250	1.0526	1 6262	1 1025	67.7966
4	9 5000		1 4974	10 9974	11 5763	1.0526	1 7075	1 1576	67.7966
5	9 5000		2 0473	11 5473	12 1551	1.0526	1 7929	1 2155	67.7966
6	9 5000	\$12 3799	2 6247	24 5046	12 7628	1.0526	1 8889	1 2763	67.7566
7	21 8799		3 8499	25 7298	13 4010	1.0526	1 9833	1 3401	67.5676
8	21 8799		5 1364	27 0163	14 0710	1.0526	2 0825	1 4071	67.5676
9	21 8799		6 4872	28 3671	14 7746	1.0526	2 1866	1 4775	67.5676
10	21 8799		7 9056	29 7855	15 5133	1.0526	2 2960	1 5513	67.5676

**NOTES**

Assumptions made in this case are as follows

- a) Original issue price = \$10
- b) Year 1 Flotation cost = 5%
- c)  $k = D/P + g = 10\% + 5\% = 15\%$
- d)  $r_1 = 15.5263\%$
- e) Year 6 issue price = \$12 7628
- f) Year 6 flotation cost = 3%
- g) Year 6 new common stock =  $\$12\,7628(1 - F)$   
=  $\$12\,7628(0.97)$   
= \$12 3799
- h) Additional issue  $r = 15.3093\%$

sary if investors are to receive the 15 per cent DCF return on their investment. The stock price grows at 5 per cent throughout the ten-year period.

The fact that the company must continue to earn the flotation-adjusted cost of equity, even as retained earnings build up to a larger and larger proportion of total common equity, is counterintuitive, and so it deserves further discussion. Here are two comments:

1) *Demonstration that a weighted average cost rate is inappropriate.* It has been suggested that the authorized return on equity should be a weighted average of the flotation-adjusted cost rate,  $r = 15.5263$  per cent, and the DCF cost rate,  $k = 15$  per cent, with the weights being based on common equity and accumulated retained earnings, respectively. When we programmed our model to reflect these conditions, we obtained the results shown in Table 4. A problem obviously exists – if dividends are to grow at the 5 per cent rate that investors expect, and if earnings are based on a weighted average of  $k$  and  $r$ , then a higher and higher percentage of earnings will have to be paid out. Thus, the payout ratio will rise. In Year 34 the payout ratio will exceed 100 per cent, so retained earnings will start to decline. Retained earnings actually go negative in Year 45, and Total Common Equity goes negative in Year 46, which means the company is officially bankrupt. This example demonstrates, in yet another way, that the flotation-adjusted cost of equity must be earned on all common equity if investors are to receive the DCF return to which they are entitled under prudent management. The example also demonstrates that, if investors were informed that the regulatory treatment implied in Table 4 were going to be

employed, they would not invest in the company in the first place.

2) *Logical explanation.* To understand *why* the Equation 5 value must be applied to all common equity, retained earnings as well as equity raised by selling stock, one must trace through the valuation process. Notice that, in Year 1, investors require a return of 15 per cent on their \$10 investment, or \$1.50. However, the company earns only \$1.4750, of which it pays out one dollar as a dividend and retains 47.5 cents. To give the investor the fifty-cent increase in market value (or capital gain) needed to add to the one dollar dividend to produce the \$1.50, or 15 per cent, total DCF return, the 47.5 cents must earn more than 15 per cent. Specifically, it must earn the flotation adjusted cost of equity,  $r = 15.5263$  per cent. This same thought process can be continued in other years, ad infinitum, and the ultimate conclusion is that both the original common equity and all retained earnings must earn  $r = 15.5263$  per cent.

If the preceding paragraph is not clear, we can put it another way. The investor expects and is entitled to earn, under prudent management, a return of 15 per cent on his or her investment. Thus, dividends plus capital gains must total 15 per cent, or \$1.50 in the first year. Ten per cent, or one dollar, will come from dividends, so 5 per cent, or 50 cents, must come from capital gains. To obtain a capital gain yield of 50 cents from 47.5 cents of retained earnings, the retained earnings must earn a return greater than  $k = 15$  per cent; specifically, the retained earnings must be allowed to earn  $r = 15.5263$  per cent. (If the 47.5 cents earned 15 per cent, then it would be worth exactly 47.5 cents, not 50 cents.) In Year 2, retained earnings will rise by



5 per cent from 47.5 cents to 49.875 cents; the capital gains then must rise from 50 cents to  $.50(1.05) = 52.5$  cents; the only way this can happen is for the second-year retained earnings to be allowed to earn  $r = 15.5263$  per cent; and so on.

### The Effect of the Payout Ratio on the Flotation Cost Adjustment

Even though fair regulation requires that retained earnings be allowed to earn the flotation adjusted cost of equity, the level of retained earnings as affected by the payout ratio does have a material effect on the size of the adjustment.

To illustrate this point, assume (1) that two utilities both have a 15 per cent market cost of equity, that is,  $k = 15$  per cent; (2) that both companies sell at a price of \$20; but (3) that one company has a policy of paying out 25 per cent of its earnings and retaining 75 per cent, while the other has the reverse dividend policy. Assume further that both companies earn 15 per cent on their \$20 market value, so earnings per share are  $.15(\$20) = \$3$ . The high payout company has a dividend of  $.75(\$3) = \$2.25$ , while the low payout company has a dividend of  $.25(\$3) = 75$  cents. At the same time, the low payout company, which plows most of its earnings back into the business, will have a growth rate of  $g = .75(15 \text{ per cent}) = 11.25$  per cent, while the high payout company will have  $g = .25(15 \text{ per cent}) = 3.75$  per cent.

Under these conditions, the following situation would exist for the two illustrative companies:

$$\begin{aligned} \text{Low payout Company: } k &= \frac{D_1}{P_0} + g = \frac{\$0.75}{\$20} + 11.25\% \\ &= 3.75\% + 11.25\% = 15\% \end{aligned}$$

$$\begin{aligned} \text{High payout Company: } k &= \frac{D_1}{P_0} + g = \frac{\$2.25}{\$20} + 3.75\% \\ &= 11.25\% + 3.75\% = 15\% \end{aligned}$$

Applying the adjustment formula,

$$r = \frac{\text{Expected dividend yield}}{1 - F} + g.$$

we find this situation, assuming that issuance costs are 5 per cent:

$$\begin{aligned} \text{High payout Company: } r &= \frac{11.25\%}{0.95} + 3.75\% \\ &= 11.842\% + 3.75\% = 15.592\% \end{aligned}$$

$$\begin{aligned} \text{Low payout Company: } r &= \frac{3.75\%}{0.95} + 11.25\% \\ &= 3.947\% + 11.25\% = 15.197\% \\ \text{Difference} &= 0.395\% \end{aligned}$$

Thus, we see that the company which retains most of its earnings, and which consequently has more retained

Table 4

### Case 4: Company Earns Weighted Average k

Year	Common Stock (1)	Retained Earnings (2)	Total Equity (3)	EPS (4)	DPS (5)	Payout Rate (6)	Weighted k (7)
1	\$9.5000	\$ 0.0000	\$ 9.5000	\$1.4750	\$1.0000	67.7966%	0.1553
2	9.5000	0.4750	9.9750	1.5463	1.0500	67.9062	0.1550
3	9.5000	0.9713	10.4713	1.6207	1.1025	68.0267	0.1548
4	9.5000	1.4894	10.9894	1.6984	1.1576	68.1591	0.1545
5	9.5000	2.0302	11.5302	1.7795	1.2155	68.3047	0.1543
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
33	9.5000	23.2219	32.7219	4.9583	4.7649	96.1006	0.1515
34	9.5000	23.4152	32.9152	4.9873	5.0032	100.3188	0.1515
35	9.5000	23.3993	32.8993	4.9849	5.2533	105.3852	0.1515
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
45	9.5000	-2.3443	7.1557	1.1234	8.2791	736.9935	0.1570
46	The company goes bankrupt.						

### NOTES:

1) Assumptions made in this case are as follows:

- Issue price = \$10
- Flotation cost = 5%
- $k = D/P + g = 10\% + 5\% = 15\%$
- $r = 15.5263\%$

2) The dividend in Year 45 cannot grow by the 5 per cent growth rate, because if it did total equity would become negative. Therefore, the Year 45 dividend is calculated as the remaining portion of total equity + earnings in Year 45:  $\$7.1557 + \$1.1234 = \$8.2791$ .

**Table 5**

Case 5: Company Sells Additional Stock and k Changes  
Beginning of Year

Year	Common Stock (1)	New Issue (1a)	Retained Earnings (2)	Total Equity (3)	Stock Price (4)	Market-Book Ratio (5)	EPS (6)	DPS (7)	Payout Ratio (8)
1	\$ 9.5000		\$0.0000	\$ 9.5000	\$10.0000	1.0526x	\$1.4750	\$1.0000	67.7966%
2	9.5000		0.4750	9.9750	10.5000	1.0526	1.5488	1.0500	67.7966
3	9.5000		0.9738	10.4738	11.0250	1.0526	1.6262	1.1025	67.7966
4	9.5000		1.4974	10.9974	11.5763	1.0526	1.7075	1.1576	67.7966
5	9.5000		2.0473	11.5473	12.1551	1.0526	1.7929	1.2155	67.7966
6	9.5000	\$12.3799	2.6247	24.5046	12.7628	1.0526	1.8889	1.2763	67.5676
7	21.8799		3.8499	25.7298	13.4010	1.0526	1.9833	1.3401	67.5676
8	21.8799		5.1364	27.0163	14.0710	1.0526	1.8123	1.4071	77.6398
9	21.8799		5.9469	27.8268	14.4931	1.0526	1.8667	1.4493	77.6398
10	21.8799		6.7817	28.6616	14.9279	1.0526	1.9227	1.4928	77.6398

NOTES:

Assumptions made in this case are as follows:

- a) Original issue price = \$10
- b) Year 1 flotation cost = 5%
- c) Issue 1  $r = 15.5263\%$
- d) Year 6 issue price = \$12.7628
- e) Year 6 flotation cost = 3%
- f) Year 6 new common stock =  $\$12.7628(1 - F)$   
=  $\$12.7628(0.97)$   
= \$12.3799
- g) Additional issue  $r = 15.3093\%$
- h) Years 1-7,  $k = D/P + g = 10\% + 5\% = 15\%$
- i) Years 8-10,  $k = D/P + g = 10\% + 3\% = 13\%$

**Table 6**

Case 6: Company Sells Additional Stock and k Changes  
Beginning of Year

Year	Common Stock (1)	New Issue (1a)	Retained Earnings (2)	Total Equity (3)	Stock Price (4)	Market-Book Ratio (5)	EPS (6)	DPS (7)	Payout Ratio (8)
1	\$ 9.5000		\$0.0000	\$ 9.5000	\$10.0000	1.0526x	\$1.4750	\$1.0000	67.7966%
2	9.5000		0.4750	9.9750	10.5000	1.0526	1.5488	1.0500	67.7966
3	9.5000		0.9738	10.4738	11.0250	1.0526	1.6262	1.1025	67.7966
4	9.5000		1.4974	10.9974	11.5763	1.0526	1.7075	1.1576	67.7966
5	9.5000		2.0473	11.5473	12.1551	1.0526	1.7929	1.2155	67.7966
6	9.5000	\$12.3799	2.6247	24.5046	12.7628	1.0526	1.8889	1.2763	67.5676
7	21.8799		3.8499	25.7298	13.4010	1.0526	1.9833	1.3401	67.5676
8	21.8799		5.1364	27.0163	14.0710	1.0526	1.8011	1.1257	62.5000
9	21.8799		5.9469	27.3671	14.7746	1.0526	1.8911	1.1820	62.5000
10	21.8799		6.7817	29.7855	15.5133	1.0526	1.9857	1.2411	62.5000

NOTES:

Assumptions made in this case are as follows:

- a) Original issue price = \$10
- b) Year 1 flotation cost = 5%
- c) Issue 1  $r = 15.5263\%$
- d) Year 6 issue price = \$12.7628
- e) Year 6 flotation cost = 3%
- f) Year 6 new common stock =  $\$12.7628(1 - F)$   
=  $\$12.7628(0.97)$   
= \$12.3799
- g) Additional issue  $r = 15.3093\%$
- h) Years 1-7,  $k = D/P + g = 10\% + 5\% = 15\%$
- i) Years 8-10,  $k = D/P + g = 10\% + 3\% = 13\%$

earnings and a smaller dollar amount of flotation costs, also has the lower flotation-adjusted cost of equity. This demonstrates that the issuance cost adjustment formula is itself adjusted to reflect the extent to which a company finances by retaining earnings rather than by selling new common stock.

### Changes in the DCF Cost of Equity

We also analyzed the effects of changes in the DCF cost of equity over time. While a change in the DCF  $k$  causes a change in earnings, dividends, and the growth rate, the flotation adjustment *process* is not affected – Equation 5 still produces a fair rate of return on book value. This is demonstrated in Tables 5 and 6. It should be noted that the effects of the adjustment as derived by Equation 5 do vary with the level of the DCF cost and with the split between dividend yield and growth. In Case 5, we analyze the effects of a change in the growth rate with the dividend yield held constant, while in Case 6, reversing them, we analyze the effects of a change in the dividend yield with the growth rate held constant. Both cases use Case 3 as their base case. In each instance, a new value for  $r$ , based on Equation 5, can be established, and this return on book value permits investors to earn their new DCF cost of equity.

### Capitalizing Flotation Costs

Bierman and Hass, almost as an afterthought toward the end of their article, suggested that utilities should be allowed to record the *gross amount* of equity sales and to earn a DCF return on gross equity capital. This would amount to capitalizing flotation costs. These capitalized costs could then be amortized over some prescribed period or else be kept on the books indefinitely.

To show this, we set up computer models using our various cases but capitalizing flotation costs. One can see that earnings, dividends, and stock prices are all exactly like those shown in our tables. Thus, capitalizing flotation costs produces exactly the same results as Equation 5.

Capitalizing flotation costs has much to recommend it, for it would eliminate the confusion that has existed. However, a fundamental problem exists for any company that has incurred flotation costs in the past, that is, for virtually the entire utility industry. How would the fact that past flotation costs were not capitalized be dealt with? In other words, capitalizing flotation costs would be an excellent procedure for a new, start-up, company, but such a plan would not be feasible for an existing company without somehow adjusting for past costs. Such an adjustment could be made, but a discussion of it goes beyond the scope of this article.

### Conclusion

The proper treatment of equity flotation costs has caused much confusion. Had such costs been either capitalized in the past or else expensed on an as-incurred basis, there would be no problem, but since neither of these practices has generally been followed, the DCF return must be adjusted to produce a fair rate of return on book equity.

Further, the adjustment is always required, irrespective of whether or not a company has plans to sell new stock in the future, and the adjusted return must be earned on total equity, including retained earnings. Otherwise, it would be impossible for investors to earn the cost of equity, even under prudent and efficient management.

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**Roger A. Morin, PhD**

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### Alternative Sources of Equity

A second controversy is whether a flotation cost allowance should be allowed because a company can always obtain equity from sources other than a public issue of common stock, such as a rights issue for example. There are several sources of equity capital available to a firm, including: public common stock issues, conversions of convertible preferred stock, dividend reinvestment plans, employees' savings plans, warrants, and stock dividend programs. Each carries its own set of administrative costs and flotation cost components, including discounts, commissions, corporate expenses, offering spread, and market pressure.

Equity capital raised through a public issue is typically more expensive than alternate sources of equity. Rights issues, when available, are less expensive, but direct costs still would be incurred. Of course, a rights issue assumes that a willing underwriter and a willing market could be found for such offerings in the first place, an unlikely event in public capital markets for small unproven companies. Internal sources of equity, including dividend reinvestment and/or employee stock option plans, are also typically less expensive, unless a discount on the purchase price is inherent in the plan, in which case they are often equivalent to a public issue. Direct costs are also incurred in an employee stock savings plan and/or a shareholder dividend reinvestment plan.

The flotation cost allowance is still warranted, however, because it is a composite factor that reflects the historical mix of all these sources of equity. The flotation cost allowance applicable to all the company's book equity is actually a weighted average of the current allowances required for each past financing, that is, the flotation cost allowance factor is a build-up of historical flotation cost adjustments associated and traceable to each component of equity source. However, it is impractical and prohibitive to start from the inception of a company and source all present equity from various equity vintages and types of equity capital raised by the company. One way of circumventing the problem of vintaging each form of equity is to source book equity by broad categories of equity, such as dividend reinvestment plan equity, stock option equity, and public issue equity, and calculate a weighted average flotation factor. That is also onerous and cumbersome. A practical solution is to rely on the results of the empirical studies discussed earlier that quantify the average flotation cost factor of a large sample of utility stock offerings.

### Efficient Markets

A third controversy centers around the argument that the omission of flotation cost is justified on the grounds that, in an efficient market, the stock price already reflects any accretion or dilution resulting from new issuances of securities and that a flotation cost adjustment results in a double counting effect. The simple fact of the matter is that whatever stock price is set by the

## Chapter 10: Flotation Cost Adjustment

market, the company issuing stock will always net an amount less than the stock price due to the presence of intermediation and flotation costs. As a result, the company must earn slightly more on its reduced rate base in order to produce a return equal to that required by shareholders.

Existing shareholders are made worse off when a company issues new stock below the market price, irrespective of how "efficient" that stock price may be. As seen in an earlier example, the new issue results in a transfer of wealth from existing to new shareholders. This is true regardless of the degree of efficiency of the market.

It has also been argued that a flotation cost allowance is inequitable since it results in a windfall gain to shareholders. This argument is erroneous. As stated previously, the company's common equity account is credited by an amount less than the market value of the issue, so that the company must earn slightly more on its reduced rate base in order to produce a return equal to that required by shareholders. Moreover, existing shareholders are made worse off when a company issues new stock below the market price.

The suggestion that the flotation cost allowance is unwarranted because investors factor this shortcoming in the stock price implies that it is appropriate to use a deficient model because such a deficiency is reflected in stock prices. In other words, it is appropriate to use a deficient model because investors are aware of this. Such circular reasoning could be used to justify any regulatory policy. For example, under this reasoning, it would be appropriate to authorize a return on equity of 1% because investors reflect this fact in the stock price. This is clearly illogical and erroneous. Any regulatory policy, as irrational as it may be, can be justified using this argument.

### **Absence of Imminent Stock Issues**

Another controversy is whether the flotation cost allowance should still be applied when the utility is not contemplating an imminent common stock issue. Some argue that flotation costs are real and should be recognized in calculating the fair return on equity, but only at the time when the expenses are incurred. In other words, the flotation cost allowance should not continue indefinitely, but should be made in the year in which the sale of securities occurs, with no need for continuing compensation in future years. This argument implies that the company has already been compensated for these costs and/or the initial contributed capital was obtained freely, devoid of any flotation costs, which is an unlikely assumption, and certainly not applicable to most utilities. If the flotation costs of past stock issues have been fully recovered, the argument has merit. If that assumption is not met, the argument is without merit. The flotation cost adjustment cannot be strictly forward-looking unless all past flotation costs associated with past issues have been recovered.

# **REGULATORY FINANCE:**

## **UTILITIES' COST OF CAPITAL**

**Roger A. Morin, PhD**

**in collaboration with  
Lisa Todd Hillman**

**1994  
PUBLIC UTILITIES REPORTS, INC.  
Arlington, Virginia**



## Regulatory Finance

common equity to obtain the final cost of equity financing.<sup>1</sup> This incremental return is referred to as the "flotation cost allowance," and is the sum total of direct flotation expenses, market pressure, and market break.

To demonstrate the need for adjusting the market-determined return on equity for flotation costs, consider the following simple example. Shareholders invest \$100 of capital on which they expect to earn a return of 10%, or \$10, but the company nets \$95 because of issuance costs. It is obvious that the company will have to earn more than 10% on its net book investment (rate base) of \$95 to provide investors with a \$10 return on the money actually invested. To provide the same earnings of \$10 on a reduced capital base of \$95 clearly requires a return higher than the shareholder expected return of 10%, namely  $\$10/\$95 = 10.53\%$ . This is because only the net proceeds from an equity issue are used to add to the rate base on which the investor earns.

## 6.2 Magnitude of Flotation Costs

The flotation cost allowance requires an estimated adjustment to the return on equity of approximately 5% to 10%, depending on the size and risk of the issue. A more precise figure can be obtained by surveying empirical studies on utility security offerings.

According to empirical studies by Borum and Malley (1986) and Logue and Jarrow (1978), underwriting costs and expenses average 4% - 5.5% of gross proceeds for utility stock offerings in the U.S. Eckbo and Masulis (1987) found an average flotation cost of 4.175% for utility common stock offerings, and found that flotation costs increased progressively for smaller size issues.

As far as the market pressure effect is concerned, empirical studies clearly show that the market pressure effect is real, tangible, and measurable. Appendix 6-A describes one method of measuring the market pressure effect. Logue and Jarrow (1978) found that the absolute magnitude of the relative price decline due to market pressure was less than 1.5%. Bowyer and Yawitz (1980) examined 278 public utility stock issues and found an average market pressure of 0.72%. In a classic and monumental study published in the *Journal of Financial Economics*, which reviewed the aggregate empirical evidence on market pressure from several studies, Smith (1986) found a market pressure effect of 3.14% for industrial stock

<sup>1</sup> An alternate way of stating this requirement is that the utility's stock must be maintained at some minimum market-to-book ratio in such a way that the proceeds from new stock issues will not decline below book value per share.

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Application of Yankee Gas Services Company for a Rate Increase, DPUC Docket No. 04-06-01  
Direct Testimony of George J. Eckenroth (Jul. 2, 2004) at Exhibit GJE-11.1

All Secondary Utility Equity Offerings Since 1/1/2001 \$100MM to \$500MM

Stock Ticker Symbol	Filing date	Pricing date	Issuer	Amount (\$MM)	Gross Spread (%)	Industry	Bookrunner
GXP	04 Jun 2004	08 Jun 2004	Great Plains Energy Inc	150.0	3.50	Utility-Electric Power	ML
WR	17 Mar 2004	25 Mar 2004	Westar Energy Inc	249.3	3.50	Utility-Electric Power	SSB, LEHMAN, WCHV
UGI	22 Jan 2004	18 Mar 2004	UGI Corp	249.7	4.38	Utility-Diversified	CSFB
HE	09 Mar 2004	10 Mar 2004	Hawaiian Electric Industries Inc	103.7	4.00	Utility-Electric Power	ML
PNY	12 Jan 2004	20 Jan 2004	Piedmont Natural Gas Co Inc	180.6	3.51	Utility-Gas Distribution	ML
WPS	13 Nov 2003	19 Nov 2003	WPS Resources Corp	173.1	3.50	Utility-Diversified	AGEDW
SRE	07 Oct 2003	08 Oct 2003	Sempra Energy	482.0	3.00	Utility-Diversified	SSB, JPMHQ, MS
PEG	30 Sep 2003	01 Oct 2003	Public Service Enterprise Group Inc - PSEG	367.1	3.00	Utility-Electric Power	SSB, MS
OGE	19 Aug 2003	21 Aug 2003	OGE Energy Corp	115.0	3.66	Utility-Electric Power	LEHMAN
VVC	31 Jul 2003	07 Aug 2003	Vectren Corp	169.7	3.50	Utility-Diversified	GS
LNT	25 Jun 2003	01 Jul 2003	Alliant Energy Corp	332.1	4.00	Utility-Diversified	BOFA, ML
ATO	17 Jun 2003	18 Jun 2003	Atmos Energy Corp	103.8	4.00	Utility-Gas Distribution	ML
AES	16 Jun 2003	17 Jun 2003	AES Corp	346.2	3.25	Utility-Electric Power	BOFA, LEHMAN
SUG	30 May 2003	05 Jun 2003	Southern Union Co	174.8	3.50	Utility-Gas Distribution	JPMHQ, ML
PPL	14 May 2003	15 May 2003	PPL Corp	270.0	3.25	Utility-Electric Power	MS, SSB, JPMHQ
BKH	21 Apr 2003	24 Apr 2003	Black Hills Corp	124.2	4.75	Utility-Electric Power	CSFB, LEHMAN
ATG	31 Jan 2003	11 Feb 2003	AGL Resources Inc	141.7	3.50	Utility-Gas Distribution	MS, BOFA
AEE	13 Jan 2003	14 Jan 2003	Ameren Corp	222.8	3.26	Utility-Electric Power	GS
PNW	16 Dec 2002	17 Dec 2002	Pinnacle West Capital Corp	206.5	3.50	Utility-Electric Power	SSB, CSFB
POM	09 Dec 2002	09 Dec 2002	Peeco Holdings Inc	110.0	3.90	Utility-Electric Power	ML
GXP	14 Nov 2002	21 Nov 2002	Great Plains Energy Inc	151.8	3.75	Utility-Electric Power	ML
PEG	11 Nov 2002	12 Nov 2002	Public Service Enterprise Group Inc - PSEG	458.0	3.25	Utility-Electric Power	JPMHQ, ML, MS
TE	08 Oct 2002	10 Oct 2002	TECO Energy Inc	213.2	3.00	Utility-Electric Power	MS
SCG	30 Sep 2002	09 Oct 2002	SCANA Corp	150.6	3.25	Utility-Electric Power	UBSW, BOFA
PSC	08 Jul 2002	19 Sep 2002	Philadelphia Suburban Corp	180.4	4.27	Utility-Water Supply	ALEX, UBSW
AEE	03 Sep 2002	04 Sep 2002	Ameren Corp	338.1	3.26	Utility-Electric Power	GS
ILA	19 Jun 2002	27 Jun 2002	Aquila Inc	281.3	3.25	Utility-Electric Power	CSFB
DOE	12 Jun 2002	20 Jun 2002	Duquesne Light Holdings Inc	232.9	3.75	Utility-Electric Power	LEHMAN
DTE	14 Jun 2002	19 Jun 2002	DTE Energy Co	273.6	3.25	Utility-Electric Power	SSB, UBSW
FPL	03 Jun 2002	06 Jun 2002	FPL Group Inc	325.5	3.00	Utility-Electric Power	GS, ML
TE	30 May 2002	04 Jun 2002	TECO Energy Inc	357.1	3.00	Utility-Electric Power	UBSW, CSFB
AEE	19 Feb 2002	26 Feb 2002	Ameren Corp	227.1	3.49	Utility-Electric Power	GS
ILA	22 Jan 2002	24 Jan 2002	Aquila Inc	287.5	3.25	Utility-Electric Power	SSB, UBSW
LNT	25 Oct 2001	08 Nov 2001	Alliant Energy Corp	273.7	3.75	Utility-Diversified	ML
SRP	24 Jul 2001	09 Aug 2001	Sierra Pacific Resources	353.6	3.75	Utility-Electric Power	ML
ORN	11 May 2001	31 May 2001	Orton Power Holdings Inc	355.6	4.25	Utility-Electric Power	GS
ALE	09 May 2001	23 May 2001	ALLETE Inc	153.9	4.00	Utility-Electric Power	UBSW
BKH	22 Mar 2001	18 Apr 2001	Black Hills Corp	175.9	5.50	Utility-Electric Power	CSFB
NRG	16 Feb 2001	07 Mar 2001	NRG Energy Inc	496.8	4.52	Utility-Electric Power	CSFB, ML
TE	20 Feb 2001	06 Mar 2001	TECO Energy Inc	239.3	3.00	Utility-Electric Power	CSFB
ILA	23 Feb 2001	05 Mar 2001	Aquila Inc	342.2	2.76	Utility-Electric Power	ML
VVC	19 Jan 2001	08 Feb 2001	Vectren Corp	134.5	3.48	Utility-Diversified	ML
			Mean	244.16	3.60		
			Median	230.00	3.50		

Notes

1. Source: Equidisk
2. Excludes Block Trades
3. Includes all utility marketed offerings between \$100MM - \$500MM. Offering amount includes proceeds raised through exercise of greenshoe (where applicable)
4. U.S. offerings only

**Application of Yankee Gas Services Company for a Rate Increase, DPUC Docket No. 04-06-01  
Direct Testimony of George J. Eckenroth (Jul. 2, 2004) at Exhibit GJE-11.1  
Updated Through April 2005  
All Secondary Utility Equity Offerings Since 1/1/2001 \$100MM to \$500MM**

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NRG	16 Feb 2001	07 Mar 2001	NRG Energy Inc	496.8	4.52	Utility-Electric Power	CSFB, ML
BKH	22 Mar 2001	18 Apr 2001	Black Hills Corp	175.9	5.50	Utility-Electric Power	CSFB
ALE	09 May 2001	23 May 2001	ALLETE Inc	153.9	4.00	Utility-Electric Power	UBSW
ORN	11 May 2001	31 May 2001	Orion Power Holdings Inc	355.6	4.25	Utility-Electric Power	GS
SRP	24 Jul 2001	09 Aug 2001	Sierra Pacific Resources	353.6	3.75	Utility-Electric Power	ML
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GXP	14 Nov 2002	21 Nov 2002	Great Plains Energy Inc	151.8	3.75	Utility-Electric Power	ML
POM	09 Dec 2002	09 Dec 2002	Pepco Holdings Inc	110.0	3.90	Utility-Electric Power	ML
PNW	16 Dec 2002	17 Dec 2002	Pinnacle West Capital Corp	206.5	3.50	Utility-Electric Power	SSB, CSFB
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OGE	19 Aug 2003	21 Aug 2003	OGE Energy Corp	115.0	3.66	Utility-Electric Power	LEHMAN
PEG	30 Sep 2003	01 Oct 2003	Public Service Enterprise Group Inc - PSEG	387.1	3.00	Utility-Electric Power	SSB, MS
SRE	07 Oct 2003	08 Oct 2003	Sempra Energy	462.0	3.00	Utility-Diversified	SSB, JPMHQ, MS
WPS	13 Nov 2003	19 Nov 2003	WPS Resources Corp	173.1	3.50	Utility-Diversified	AGEDW
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GXP	04 Jun 2004	08 Jun 2004	Great Plains Energy Inc	150.0	3.50	Utility - Electric Power	ML
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SUG	20 Jul 2004	26 Jul 2004	Southern Union Co	237.2	3.50	Utility - Gas Distribution	JPM, ML
ILA	16 Aug 2004	18 Aug 2004	Aquila Inc	117.3	3.88	Utility - Electric Power	LEH
POM	07 Sep 2004	09 Sep 2004	Pepco Holdings Inc	287.8	3.50	Utility - Electric Power	ML, CSFB
CMS	04 Oct 2004	07 Oct 2004	CMS Energy Corp	298.3	3.50	Utility - Electric Power	CITI, JPM, ML
ATO	14 Oct 2004	21 Oct 2004	Atmos Energy Corp	398.5	4.00	Utility - Gas Distribution	ML
ATG	15 Nov 2004	18 Nov 2004	AGL Resources Inc	342.4	3.00	Utility - Gas Distribution	MS, JPM
IDA	07 Dec 2004	09 Dec 2004	Idacorp Inc	120.8	4.00	Utility - Electric Power	MS
SUG	07 Feb 2005	07 Feb 2005	Southern Union Co	343.0	3.04	Utility - Gas Distribution	ML, JPM
PNM	18 Mar 2005	23 Mar 2005	PNM Resources Inc	104.6	3.25	Utility - Electric Power	MS, BOFA, WCHV
CMS	28 Mar 2005	30 Mar 2005	CMS Energy Corp	281.8	3.50	Utility - Electric Power	CITI, JPM, DB, WCHV
PNW	26 Apr 2005	27 Apr 2005	Pinnacle West Capital Corp	256.0	3.25	Utility - Electric Power	LEH
<b>Mean</b>				<b>244.68</b>	<b>3.59</b>		

**Notes**

1. Source: Exhibit GJE-11.1, Equidisk
2. Excludes Block Trades
3. Includes all utility marketed offerings between \$100MM - \$500MM. Offering amount includes proceeds raised through exercise of greenshoe (where applicable)
4. U.S. offerings only

# Blue Chip Financial Forecasts®

**Top Analysts' Forecasts Of U.S. And Foreign Interest Rates, Currency Values  
And The Factors That Influence Them**

**Vol. 34, No. 12, December 1, 2015**

**Wolters Kluwer**

# BLUE CHIP FINANCIAL FORECASTS®

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Publisher: Dom Cervi

**Blue Chip Financial Forecasts®** (ISSN: 0741-8345) is published monthly by CCH Incorporated, 76 Ninth Avenue, New York, NY 10011. Printed in the U.S.A.

**Subscriptions:** \$1285 per year for print, e-mail or online delivery of 12 monthly issues. \$1535 per year for both print and e-mail delivery of 12 monthly issues. \$2065 for email or online and Excel package. For multiple-copy rates and site-license agreements call Tom Bader in the U.S. toll free at 877-347-6108. You may also contact him at: [tom.bader@wolterskluwer.com](mailto:tom.bader@wolterskluwer.com)

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## Ready, Set, Hike

**Domestic Commentary** All of our panelists responding to our November 24<sup>th</sup>-25<sup>th</sup> survey said they believe the Federal Reserve's Open Market Committee (FOMC) will raise interest rates by 25 basis points at its December 15<sup>th</sup>-16<sup>th</sup> meeting. Moreover, the market-based probability of a December rate hike now stands at a bit more than 70%. Odds of a December move have jumped in reaction to the FOMC's October 28<sup>th</sup> policy statement and minutes of the meeting that were generally perceived as hawkish, a stronger than anticipated October Employment report, and recent statements by Fed Chair Janet Yellen and other FOMC members that suggested to analysts and market participants that a rate hike was imminent.

The FOMC's October policy statement dropped the phrase that "recent global and financial developments" posed a risk to U.S. economic activity and inflation "in the near term". More importantly, instead of emphasizing factors that would determine how long to maintain its existing target for the federal funds rate, the October statement listed factors that would help determine whether it was appropriate for the FOMC to raise the funds rate target "at the next meeting". While minutes of the October meeting released on November 18<sup>th</sup> indicated that "most" members still were not reasonably confident of their inflation outlook, "most" members thought that the conditions to hike rates "could well be met by the next meeting." Public comments by Yellen and other FOMC members since the October meeting have done nothing to dissuade markets from thinking the FOMC is primed to go in December. Indeed, Yellen may deliver an even clearer signal of a December hike during a scheduled speech on December 2<sup>nd</sup> or at her Congressional testimony on December 3<sup>rd</sup>.

The October Employment report released on November 6<sup>th</sup> was a major catalyst in shifting market expectations about a December rate hike. Payrolls and average hourly earnings grew by more than anticipated and the unemployment rate ratcheted down by another 0.1 of a percentage point to 5.0%, its lowest level since April 2008. In the minds of many, the only thing now standing in the way of Fed action at its December meeting is the November Employment Report due out on December 4<sup>th</sup>. If the report indicates job growth last month on par with recent trends and reported job gains in the prior two months are not downwardly revised by a large degree, announcement of a rate hike on the 16<sup>th</sup> will likely become a certainty, according to most analysts.

Once lift-off by the FOMC begins in December, the consensus continues to predict that policymakers will move more cautiously than in past tightening cycles, following no "predetermined course". Asked this month by how many basis points the FOMC will raise its federal funds rate target in 2016, the consensus response from our panelists was 95.625 basis points; essentially four 25 basis-point increases spread over the course of next year. Currently, market-based predictors of Fed action, foresee only two quarter-point hikes next year. An average of the ten highest responses from our panelists this month forecast 140 basis points of rate hikes in 2016, while an average of the 10 lowest responses predicted an increase of 57.5 basis points.

Expectations that the FOMC will move more slowly than usual are premised on three primary factors. First, there is the general consensus that potential GDP growth is slower now than in past cycles due to weak labor force and productivity increases. That would suggest a lower long-run level for Fed achievement of a neutral fed funds rate. Second, the Fed will begin normalizing rates at a time when most other major central banks remain extremely accommodative, thus risking further increases in the foreign exchange value of an already-strong U.S. dollar. Third, the FOMC has consistently signaled its intention to move gradually once rate lift-off was initiated. For example, minutes of the FOMC October meeting noted that "participants generally agreed that it would probably be appropriate to remove policy accommodation gradually," and stated that raising inter-

interest rates "relatively soon" would allow for the ultimate pace of tightening to be more shallow this cycle than in the past.

Increased anticipation of a Fed rate hike in December is presently being discounted in markets with the sharpest increases occurring in the short end of the Treasury curve. For the most part, however, markets have reacted relatively calmly to the prospect that the Fed is finally poised to begin its normalization of rates, no doubt aided by assurances from the FOMC of its intention to move gradually and current market expectations that economic developments will not force the Fed into a faster-than-expected pace of tightening. Increases in U.S. yields also are expected to be capped by their relative attractiveness compared to elsewhere in the world. Nonetheless, spreads will likely continue to widen over the forecast horizon. The junk market has been under pressure since March of this year and there is no reason to suspect that it won't remain that way as the Fed raises rates over the coming year.

The Bureau of Economic Analysis (BEA) revised up the estimated rate of real GDP growth last quarter to 2.1% (q/q,saar), 0.6 of a percentage point faster than its initial estimate. The revision was entirely accounted for by much less drag from private inventories than originally estimated. Initially, inventories were estimated to have subtracted 1.4 percentage points from real GDP's rate of growth, but now are estimated to have subtracted only 0.6 of a point. Growth in real personal consumption expenditures was revised down to 3.0% (q/q,saar) from 3.2%. Growth in real business fixed investment was revised up to 2.4% (q/q,saar) from 2.1%, but the drag from the trade sector was a bit more than originally thought. Growth in real domestic final sales (GDP minus inventories and trade) was revised down by 0.1 of a percentage point to 2.8%.

The consensus predicts real GDP will grow 2.5% (q/q,saar) in the current quarter, down 0.1 of a percentage point from a month ago. However, recent data suggests even this estimate may be too optimistic. Given data for October and hints of activity in November, the pace of growth in real PCE looks to have softened a good bit this quarter following increases in Q2 and Q3 that averaged 3.3% (q/q,saar). BEA's sharp upward revision to private inventories in Q3 also suggests that we will see more drag from inventories in Q4 than some had been anticipating. Net exports also may take a larger chunk from GDP this quarter than now expected by the consensus. There also is a strong likelihood of seasonal greater weakness in government spending and investment this quarter and next reminiscent of the softness witnessed over the past several years. Real residential investment growth also looks like it may have slowed in Q4 following growth of 7.3% (q/q,saar) in Q3.

In 2016, the consensus this month still forecasts real GDP growth of 2.5% (q/q,saar) in Q1, 2.7% in Q2, and 2.6% in Q3 and Q4. The consensus forecast of growth in Q1 2017 was also unchanged at 2.5%. Consensus forecasts of inflation also underwent minor changes, but in general the vast majority of the panelists continue to believe the Consumer Price Index and GDP price index are poised to rebound in the near-term, accelerating to a 2.0% or slightly above annualized rate by next summer, the increases largely premised on expectations that energy prices are stabilizing and that base effects following last year's plunge in prices will kick in as 2016 begins. Core PCE inflation is expected to accelerate much more gradually over the forecast horizon, probably not reaching 2.0% on a year-over-year basis until late in 2016 or early 2017.

**Consensus Forecast** A 25 basis point hike in interest rates is expected at the FOMC's December 15<sup>th</sup>-16<sup>th</sup> meeting, followed by another 100 basis points of tightening in 2016 (*see page 2*).

**Special Questions** On page 14 are results of our twice-yearly, long-range survey with consensus estimates for the years 2017 through 2021 and averages for the 5-year periods 2017-2021 and 2022-2026.

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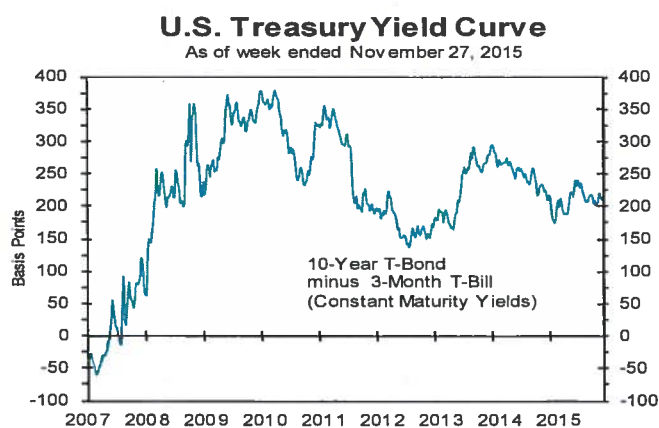
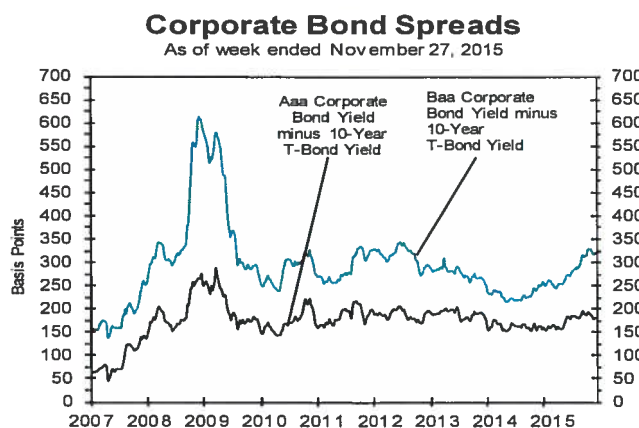
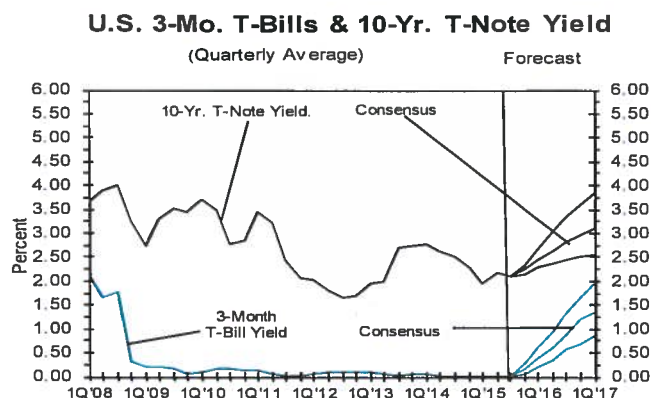
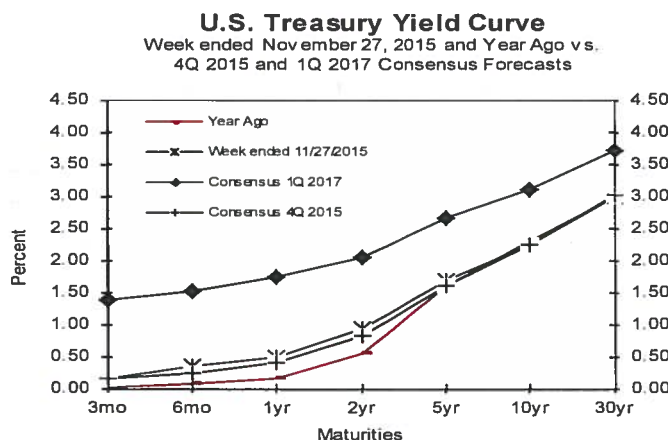
## Consensus Forecasts Of U.S. Interest Rates And Key Assumptions<sup>1</sup>

Interest Rates	-----History-----								Consensus Forecasts-Quarterly Avg.					
	-----Average For Week Ending-----				----Average For Month----			Latest Q 3Q 2015	4Q	1Q	2Q	3Q	4Q	1Q
	Nov. 27	Nov. 20	Nov. 13	Nov. 6	Oct.	Sep.	Aug.		2015	2016	2016	2016	2016	2017
Federal Funds Rate	0.12	0.12	0.12	0.10	0.12	0.14	0.14	0.13	0.2	0.5	0.7	0.9	1.2	1.4
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.3	3.5	3.7	4.0	4.2	4.5
LIBOR, 3-mo.	0.39	0.36	0.35	0.35	0.34	0.32	0.32	0.30	0.4	0.7	0.9	1.2	1.4	1.7
Commercial Paper, 1-mo.	0.12	0.10	0.10	0.10	0.11	0.13	0.10	0.08	0.2	0.4	0.7	1.0	1.2	1.5
Treasury bill, 3-mo.	0.14	0.13	0.14	0.06	0.02	0.02	0.07	0.02	0.1	0.4	0.6	0.9	1.1	1.4
Treasury bill, 6-mo.	0.34	0.32	0.34	0.28	0.11	0.18	0.22	0.12	0.2	0.5	0.7	1.0	1.3	1.5
Treasury bill, 1 yr.	0.50	0.49	0.50	0.41	0.26	0.37	0.38	0.29	0.4	0.7	1.0	1.3	1.5	1.7
Treasury note, 2 yr.	0.93	0.90	0.88	0.83	0.64	0.71	0.70	0.63	0.8	1.1	1.3	1.6	1.8	2.0
Treasury note, 5 yr.	1.68	1.68	1.72	1.64	1.39	1.49	1.54	1.47	1.6	1.9	2.0	2.3	2.4	2.6
Treasury note, 10 yr.	2.24	2.26	2.32	2.26	2.07	2.17	2.17	2.11	2.2	2.4	2.6	2.8	3.0	3.1
Treasury note, 30 yr.	3.00	3.03	3.09	3.01	2.89	2.95	2.86	2.84	3.0	3.2	3.3	3.5	3.6	3.7
Corporate Aaa bond	4.03	4.07	4.11	4.05	3.95	4.07	4.04	3.86	4.0	4.2	4.4	4.6	4.8	4.9
Corporate Baa bond	5.45	5.47	5.50	5.43	5.34	5.34	5.19	4.90	5.3	5.4	5.5	5.7	5.8	5.9
State & Local bonds	3.65	3.65	3.74	3.69	3.67	3.78	3.74	3.68	3.7	3.9	4.1	4.3	4.4	4.5
Home mortgage rate	3.95	3.97	3.98	3.87	3.80	3.89	3.91	3.80	4.0	4.2	4.4	4.6	4.7	4.9

Key Assumptions	-----History-----								Consensus Forecasts-Quarterly					
	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q
	2013	2014	2014	2014	2014	2015	2015	2015	2015	2016	2016	2016	2016	2017
Major Currency Index	76.0	77.1	76.6	77.8	82.6	89.4	89.9	91.8	92.8	93.4	93.9	94.0	93.9	93.2
Real GDP	3.8	-0.9	4.6	4.3	2.1	0.6	3.9	2.1	2.5	2.5	2.7	2.6	2.6	2.5
GDP Price Index	1.8	1.5	2.2	1.6	0.1	0.1	2.1	1.3	1.3	1.8	2.0	2.0	2.0	2.1
Consumer Price Index	1.4	2.1	2.4	1.2	-0.9	-3.1	3.0	1.6	0.8	1.7	2.3	2.2	2.4	2.2

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index and Consumer Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data for interest rates except LIBOR is from Federal Reserve Release (FRSR) H.15. LIBOR quotes available from *The Wall Street Journal*. Interest rate definitions are same as those in FRSR H.15. Treasury yields are reported on a constant maturity basis. Historical data for Fed's Major Currency Index is from FRSR H.10 and G.5. Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS).





-----3-Month Interest Rates<sup>1</sup>-----

	History			Consensus Forecasts		
	Latest:	Month Ago:	Year Ago:	Months From Now:		
				3	6	12
U.S.	0.40	0.32	0.48	0.64	0.86	1.27
Japan	0.07	0.08	0.10	0.12	0.12	0.12
U.K.	0.57	0.57	0.75	0.64	0.88	1.21
Switzerland	-0.81	-0.72	0.03	-0.75	-0.70	-0.50
Canada	0.76	0.76	1.22	0.73	0.80	1.15
Australia	2.63	2.35	2.82	1.90	2.00	2.50
Eurozone	-0.10	-0.05	0.15	-0.08	-0.08	-0.06

-----10-Yr. Government Bond Yields<sup>2</sup>-----

	History			Consensus Forecasts		
	Latest:	Month Ago:	Year Ago:	Months From Now:		
				3	6	12
U.S.	2.33	2.04	2.24	2.39	2.50	2.66
Germany	0.47	0.47	0.70	0.70	0.79	1.00
Japan	0.32	0.31	0.43	0.41	0.48	0.82
U.K.	1.93	1.80	1.92	2.13	2.27	2.46
France	0.85	0.81	1.00	1.00	1.10	1.33
Italy	1.44	1.45	2.07	1.79	1.88	2.14
Switzerland	-0.29	-0.33	0.33	-0.14	-0.02	0.23
Canada	1.59	1.42	1.90	1.82	2.00	2.26
Australia	2.88	2.63	3.11	2.90	3.00	3.26
Spain	1.63	1.59	1.91	1.72	1.80	2.03

-----Foreign Exchange Rates<sup>1</sup>-----

	History			Consensus Forecasts		
	Latest:	Month Ago:	Year Ago:	Months From Now:		
				3	6	12
U.S.	94.304	92.273	83.009	94.1	94.8	95.9
Japan	122.80	121.20	117.74	124.8	126.3	128.6
U.K.	1.5199	1.5340	1.5672	1.50	1.48	1.51
Switzerland	1.0183	0.9769	0.9696	1.05	1.08	1.10
Canada	1.3337	1.3171	1.1237	1.34	1.35	1.32
Australia	0.7233	0.7215	0.8674	0.69	0.68	0.69
Euro	1.0660	1.1016	1.2394	1.04	1.02	1.01

	Consensus 3-Month Rates vs. U.S. Rate			Consensus 10-Year Gov't Yields vs. U.S. Yield	
	Now	In 12 Mo.		Now	In 12
Japan	-0.33	-1.15	Germany	-1.76	-1.66
U.K.	0.17	-0.06	Japan	-1.91	-1.84
Switzerland	-1.21	-1.77	U.K.	-0.30	-0.20
Canada	0.36	-0.12	France	-1.38	-1.33
Australia	2.23	1.23	Italy	-0.79	-0.52
Eurozone	-0.50	-1.33	Switzerland	-2.52	-2.43
			Canada	-0.64	-0.39
			Australia	0.65	0.60
			Spain	-0.60	-0.63

Forecasts of panel members are on pages 10 and 11. Definitions of variables are as follows: <sup>1</sup>Three month rate on interest-earning money market deposits denominated in selected currencies. <sup>2</sup>Government bonds are yields to maturity. Foreign exchange rate forecasts for U.K., Australia and the Euro are U.S. dollars per currency unit. For the U.S. dollar, forecasts are of the U.S. Federal Reserve Board's Major Currency Index.

**International Commentary** The past several weeks have seen global debt and foreign exchange markets discounting an increased likelihood of additional policy easing by the European Central Bank (ECB) on December 3<sup>rd</sup> followed on December 16<sup>th</sup> by a Federal Reserve hike in interest rates. The ECB is widely expected to cut its deposit rate by 10 to 20 basis points and increase its total purchases of sovereign debt by an additional 200 to 300 billion euros. The expected divergence in central bank policy has driven the value of the Euro to seven-month lows against the U.S. dollar and pushed shorter-term yields in the Eurozone further into negative territory. While most analysts assume a December easing of policy by the ECB will be its last (no reversal of its easing is expected until late 2017 or early 2018), the anticipated hike by the Fed is expected to be the first in a series that will cumulatively total 100 basis points by the end of 2016.

Real GDP in the Eurozone slowed to a less-than-expected 1.2% (q/q,ar) in Q3 from 1.4% in Q2. Consumer spending remained the major catalyst of growth last quarter, while trade was the biggest drag. Real GDP growth in Germany slowed to 1.3% (q/q,ar) in Q3 from 1.8% in Q2, but growth in France improved to 1.4% from 0.2% in Q2. Spain and Portugal also witnessed slower quarterly growth rates in Q3 than in Q2. More recent data has looked a bit stronger than expected, suggesting some upside to estimates of growth in the current quarter. However, the recent attacks in Paris, the continuing refugee crisis, and mounting political uncertainty in Portugal and Spain pose risks to the outlook. Harmonized consumer price inflation rebounded from -0.1% to +0.1% in October. Inflation excluding energy looks less worrisome, but still remains far short of the ECB's 2.0% target.

The Bank of England's Monetary Policy Committee (MPC) is not expected to hike rates until spring or early summer of next year. Real GDP growth slowed to 2.0% (q/q,ar) in Q3 from 2.8% in Q2, held down by the sharpest widening of the trade deficit since 1997. Output in the services, manufacturing and agricultural sectors each registered growth, but construction output contracted. The unemployment rate has dropped to a seven-year low of 5.3%. Wage growth is moderate, and combined with extremely low inflation, real wage increases remain supportive of consumer spending. Consumer price inflation was -0.1% y/y for a second straight month in October, but core inflation rebounded to 1.1% y/y. The BoE is less concerned than the ECB that the current lack of inflation will turn into persistent deflation.

Central banks in Canada (BoC) and Australia (RBA), whose export-dependent economies have been harder hit by slow global growth and the plunge in commodity prices, are not expected to begin normalizing interest rates until late next year, or early 2017. Real GDP in Canada likely grew 2.0% (q/q,ar) in Q3 on solid consumer spending and a rebound in exports. That would compare with contractions in real GDP of 0.5% in Q2 and 0.8% in Q1. Real GDP growth in Australia during Q3 likely rebounded to something short of 3.0% (q/q,ar) from just 0.7% in Q2. However, recent estimates have been cut due to the report of a record 9.2% plunge in business investment during the quarter, marking the fourth straight decline.

Bank of Japan policy is on indefinite hold. Although the economy slipped back into recession as real GDP fell 0.8% (q/q,ar) in Q3 after declining 0.7% in Q2, and inflation is essentially nonexistent, the economy is at full employment with the jobless rate at its lowest level in 20 years. More QE from the BoJ would likely accomplish little.

The People's Bank of China (PBoC) has cut interest rates six times over the past year and lowered reserve requirements as economic growth decelerated to its slowest pace in a quarter century. Nonetheless, borrowing costs for many firms have remained stubbornly high, including those for banks that are burdened with high levels of non-performing loans. In an attempt to bolster the effectiveness of its policies, the PBoC has adopted a new, more market-oriented benchmark rate and established a corridor for the new rate. However, unless growth stabilizes, pressure will mount on the government to further devalue the yuan (see pages 10-11 for individual panelists' forecasts).

## 4 ■ BLUE CHIP FINANCIAL FORECASTS ■ DECEMBER 1, 2015

## Fourth Quarter 2015

## Interest Rate Forecasts

## Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum - Average For Quarter															Avg. For	----(Q-Q % Change)----		
	Short-Term					Intermediate-Term					Long-Term					---Qtr---	----(SAAR)----		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	A.	B.	C.	D.
	Federal Funds Rate	Prime Bank Rate	LIBOR Rate 3-Mo.	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Corp. Bond	Corp. Bond	State & Local Bonds	Home Mg. Rate	Fed's Major Currency \$ Index	Real GDP	GDP Price Index	Cons. Price Index
Scotiabank Group	0.5 H	3.5 H	na	na	0.6 H	na	na	1.2 H	1.8	2.4 H	3.1	na	na	na	na	na	2.5	1.6	0.6
RBC	0.5 H	3.5 H	na	na	0.1	na	na	0.9	1.6	2.2	3.0	na	na	na	na	na	2.4	1.8	0.8
AIG	0.4	na	na	na	0.3	na	na	0.8	na	2.2	na	na	5.2	na	3.9 L	na	2.0	0.8	-0.1
Cycledata Corp.	0.4	3.5 H	0.6 H	0.4	0.2	0.4 H	0.5	0.9	1.6	2.3	3.0	4.0	5.4	3.7	4.0	92.0	2.3	1.6	1.5
Swiss Re	0.4	3.4	0.5	0.2	0.1	0.2	0.4	0.7	1.6	2.3	3.2 H	4.2	5.3	na	4.1 H	na	2.8	0.7	0.3
Nomura Securities, Inc.	0.4	3.4	0.6	0.6 H	na	na	na	1.0	1.8	2.2	2.8 L	4.0	5.4	na	4.0	na	2.2	1.6	0.4
BNP Paribas Americas	0.4	na	0.4	na	na	na	na	0.8	1.6	2.3	na	na	na	na	na	na	1.7 L	na	0.4
Barclays Capital	0.4	3.5 H	0.4	na	na	na	na	1.2 H	1.9 H	2.4 H	3.1	na	na	na	na	na	2.5	1.2	0.3
Bank of America Merrill Lynch	0.3	na	0.5	na	0.3	na	na	0.8	1.6	2.4 H	3.1	na	na	na	na	na	1.9	1.5	0.5
J.P. Morgan Chase	0.3	na	0.6 H	na	na	na	na	0.8	1.6	2.2	3.0	na	na	na	na	na	2.0	1.6	0.6
Societe Generale	0.3	3.3 L	0.5	na	na	na	na	0.7	1.5	2.1 L	2.9	na	na	na	na	na	3.2	1.6	-0.2
Woodworth Holdings	0.3	3.4	0.5	0.2	0.2	0.3	0.4	0.8	1.5	2.3	3.1	4.1	5.4	3.9	4.0	91.0	2.5	0.6	0.7
UBS AG	0.3	na	0.5	na	0.3	na	na	0.8	1.5	2.2	3.0	na	na	na	na	na	3.0	1.6	0.9
Chase Wealth Management	0.3	3.3 L	0.4	0.2	0.2	0.3	0.4	0.7	1.5	2.3	3.0	4.3 H	5.3	3.8	4.0	94.0	2.4	1.5	1.2
High Frequency Economics	0.3	3.4	na	na	0.3	0.4 H	0.4	0.8	1.6	2.3	3.0	na	na	na	na	na	2.7	1.3	1.8
Goldman Sachs & Co.	0.2	na	0.5	na	0.3	na	na	0.8	1.6	2.2	2.9	na	na	na	4.0	na	2.0	1.2	0.8
Wells Capital Management	0.2	3.3 L	0.4	0.2	0.2	0.3	0.6 H	0.9	1.6	2.2	2.9	4.0	5.4	3.7	3.9 L	94.3	2.5	1.4	0.2
BMO Capital Markets	0.2	3.3 L	0.4	na	0.2	0.3	0.5	0.9	1.6	2.3	3.0	na	na	na	4.0	92.6	2.0	1.1	0.5
Standard & Poor's Corp.	0.2	3.3 L	0.4	na	0.2	0.2	0.5	0.9	1.6	2.2	2.9	3.2 L	4.4	na	4.0	93.2	2.9	1.9	2.0
RBS Securities	0.2	3.3 L	0.4	0.2	0.1	0.2	0.4	0.9	1.6	2.2	3.1	4.1	5.3	3.9	4.0	92.0	2.7	1.1	0.8
The Northern Trust Company	0.2	3.3 L	0.4	0.2	0.1	0.2	0.4	0.8	1.6	2.3	3.1	4.1	5.5 H	3.7	3.9 L	na	2.7	0.7	0.9
Daiwa Capital Markets America	0.2	3.3 L	0.4	0.2	0.1	0.3	0.4	0.9	1.6	2.2	3.0	4.2	5.5 H	3.6	3.9 L	94.0	2.0	1.4	1.0
RDQ Economics	0.2	3.3 L	0.4	0.2	0.2	0.4 H	0.4	0.8	1.6	2.3	3.0	4.0	5.3	3.7	3.9 L	92.7	2.5	1.7	1.0
Georgia State University	0.2	3.3 L	na	na	0.1	0.2	0.4	0.8	1.6	2.3	3.1	4.2	5.3	na	4.0	na	2.7	1.4	-0.7 L
Moody's Capital Markets Group	0.2	3.3 L	0.4	0.2	0.1	0.3	0.5	0.8	1.6	2.2	3.0	4.0	5.4	3.6	3.9 L	93.5	2.0	0.8	0.2
Oxford Economics	0.2	3.3 L	na	na	0.1	0.2	0.3	0.7	1.6	2.3	3.1	na	na	na	4.0	93.2	2.2	1.6	0.2
DePrince & Assoc.	0.2	3.3 L	0.4	0.2	0.1	0.2	0.3	0.7	1.4 L	2.1 L	2.9	3.9	5.3	3.7	3.9 L	91.4	2.7	1.6	0.9
PNC Financial Services Corp.	0.2	3.3 L	0.4	na	0.2	0.3	0.4	0.9	1.7	2.3	3.0	na	5.4	3.7	3.9 L	92.2	2.8	0.7	1.2
GLC Financial Economics	0.2	3.3 L	0.4	0.2	0.1	0.2	0.3	0.7	1.5	2.1 L	na	4.0	5.4	3.7	3.9 L	90.7 L	2.7	1.8	2.3 H
Stone Harbor Investment Partners	0.2	3.3 L	0.3 L	0.2	0.1	0.2	0.4	0.9	1.7	2.3	3.0	4.1	4.9	na	3.9 L	92.0	1.7 L	1.9	0.5
Action Economics	0.2	3.3 L	0.3 L	0.1	0.2	0.3	0.4	0.9	1.6	2.3	3.0	4.1	5.5 H	3.9	4.0	na	2.5	0.8	0.7
MacroFin Analytics	0.2	3.3 L	0.4	0.2	0.1	0.3	0.4	0.8	1.7	2.3	3.0	4.0	5.4	3.7	4.0	93.5	2.2	0.9	0.8
SunTrust Banks	0.2	3.3 L	0.5	0.1 L	0.1	0.3	0.4	0.9	1.6	2.2	3.0	4.1	5.5 H	3.9	4.0	na	3.3	1.3	1.0
Moody's Analytics	0.2	3.3 L	0.5	0.1 L	0.1	0.2	0.3	0.6 L	1.4 L	2.3	3.0	3.9	5.2	3.3 L	4.0	na	2.9	-0.3 L	1.1
RidgeWorth Investments	0.2	3.3 L	0.4	0.2	0.0 L	0.2	0.3	0.9	1.7	2.3	3.1	4.2	5.5 H	3.8	4.0	91.7	2.7	1.5	2.0
Mesirow Financial	0.2	3.3 L	0.4	0.2	0.1	0.2	0.4	0.7	1.5	2.2	3.0	4.1	5.4	3.7	3.9 L	93.0	2.5	0.8	0.2
Amherst Pierpont Securities	0.2	3.3 L	0.4	0.2	0.1	0.3	0.4	0.9	1.7	2.2	3.0	4.1	5.5 H	3.7	3.9 L	93.5	1.9	1.6	0.6
Naroff Economic Advisors	0.2	3.3 L	0.4	0.2	0.1	0.3	0.4	0.8	1.5	2.2	3.0	4.1	5.4	3.7	4.0	93.0	3.5	1.9	0.8
MUFG Union Bank	0.2	3.3 L	0.3 L	0.2	0.1	0.3	0.4	0.8	1.6	2.3	3.1	4.1	5.4	3.7	4.0	92.0	2.7	2.2 H	1.3
Natl Assn. of Realtors	0.2	3.3 L	0.4	0.3	0.2	0.3	0.6 H	0.9	1.6	2.2	3.0	4.1	5.3	4.1 H	3.9 L	na	2.0	1.6	1.5
Economist Intelligence Unit	0.2	3.3 L	0.4	0.2	0.1	0.2	0.4	0.8	1.6	2.2	2.9	na	na	na	3.9 L	na	2.4	na	1.8
Chmura Economics & Analytics	0.2	3.3 L	0.4	0.1 L	0.1	0.3	0.4	0.8	1.6	2.3	3.1	4.1	na	na	4.0	92.8	3.6 H	1.3	2.2
Comerica Bank	0.1 L	3.3 L	0.4	na	0.1	0.3	0.4	0.8	1.6	2.2	3.0	na	3.8 L	na	3.9 L	na	2.5	1.7	1.5
Fannie Mae	0.1 L	3.3 L	na	na	0.1	0.3	0.4	0.8	1.6	2.2	3.0	na	na	na	na	na	2.6	1.2	0.4
Loomis, Sayles & Company	0.1 L	3.3 L	0.3 L	0.1 L	0.1	0.2	0.4	0.8	1.6	2.2	3.0	4.1	5.4	3.8	3.9 L	92.7	2.3	0.7	0.6
Regions Financial Corporation	0.1 L	3.3 L	0.4	0.1 L	0.1	0.2	0.4	0.7	1.5	2.2	3.0	4.0	5.4	na	3.9 L	93.1	1.9	2.0	0.8
Wells Fargo	0.1 L	3.3 L	0.3 L	0.1 L	0.1	0.1 L	0.2 L	0.8	1.6	2.2	3.0	4.0	5.4	3.9	4.0	94.8 H	2.1	1.4	0.8
December Consensus	0.2	3.3	0.4	0.2	0.1	0.2	0.4	0.8	1.6	2.2	3.0	4.0	5.3	3.7	4.0	92.8	2.5	1.3	0.8
Top 10 Avg.	0.4	3.4	0.5	0.3	0.3	0.3	0.5	1.0	1.7	2.3	3.1	4.1	5.5	3.9	4.0	93.7	3.1	1.9	1.8
Bottom 10 Avg.	0.1	3.3	0.3	0.1	0.1	0.2	0.3	0.7	1.5	2.2	2.9	3.9	5.0	3.6	3.9	91.8	1.9	0.6	0.1
November Consensus	0.2	3.3	0.4	0.2	0.1	0.2	0.4	0.7	1.5	2.2	2.9	4.0	5.2	3.7	3.9	91.7	2.6	1.4	1.0
Number of Forecasts Changed From A Month Ago:																			
Down	9	4	11	9	7	6	8	7	4	5	6	5	7	9	6	3	21	15	18
Same	19	27	12	9	10	6	5	10	12	14	13	6	6	7	10	7	17	22	19
Up	19	9	16	11	24	24	23	30	30	28	25	19	19	9	20	16	9	8	10
Diffusion Index	61 %	56 %	56 %	53 %	71 %	75 %	71 %	74 %	78 %	74 %	72 %	73 %	69 %	50 %	69 %	75 %	37 %	42 %	41 %

# First Quarter 2016

## Interest Rate Forecasts

## Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum-- Average For Quarter--															Avg. For Qtr. Fed's Major Currency \$ Index	(Q-Q % Change)-- (SAAR)			
	Short-Term					Intermediate-Term					Long-Term						A. Fed's Major Currency \$ Index	B. Real GDP	C. GDP Price Index	D. Cons. Price Index
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15					
	Federal Funds Rate	Prime Bank Rate	LIBOR 3-Mo. Rate	Com Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mg. Rate					
Swiss Re	0.9 H	3.9 H	1.0 H	0.7	0.6	0.7	0.8	1.1	2.1	2.6	3.5	4.4	5.4	na	4.5	na	3.0	0.5 L	0.5	
RBC	0.8	3.8	na	na	0.3	na	na	1.2	2.0	2.6	3.3	na	na	na	na	na	2.5	3.1 H	1.3	
Scotiabank Group	0.8	3.8	na	na	0.9 H	na	na	1.6	2.2	2.6	3.2	na	na	na	na	na	2.6	1.8	1.4	
BNP Paribas Americas	0.7	na	0.9	na	na	na	na	1.6	2.2	2.6	na	na	na	na	na	na	2.0	na	0.9	
J.P. Morgan Chase	0.6	na	0.7	na	na	na	na	1.0	1.9	2.4	3.1	na	na	na	na	na	2.3	1.8	1.5	
Barclays Capital	0.6	3.8	0.8	na	na	na	na	1.3	2.0	2.4	3.1	na	na	na	na	na	2.5	1.3	0.4 L	
Cycledata Corp.	0.6	3.8	0.8	0.6	0.4	0.5	0.7	1.0	1.7	2.4	3.1	4.1	5.5	3.7	4.1	92.0	2.3	1.8	1.8	
RDQ	0.6	3.6	0.8	0.7 H	0.6	0.7	0.9	1.2	2.0	2.7	3.3	4.3	5.6	4.1	4.3	96.1 H	2.6	1.9	2.1	
Chmura Economics & Analytics	0.6	3.6	0.8	0.6	0.5	0.7	0.9	1.4	2.4	2.9 H	3.6 H	4.6 H	na	na	4.5	91.4	2.7	1.4	1.6	
SunTrust Banks	0.6	3.6	0.8	0.3 L	0.5	0.5	0.7	1.2	1.9	2.3	3.1	4.3	5.6	4.0	4.2	na	3.0	1.4	1.2	
Societe Generale	0.5	3.5	0.8	na	na	na	na	0.8 L	1.6 L	2.3	3.0	na	na	na	na	na	2.9	1.9	1.4	
UBS AG	0.5	na	0.9	na	0.7 H	na	na	1.1	1.8	2.4	3.1	na	na	na	na	na	2.9	2.3	0.9	
Nomura Securities, Inc.	0.5	3.5	0.7	0.7	na	na	na	1.1	1.9	2.3	2.9 L	4.1	5.6	na	4.2	na	2.2	1.6	1.1	
Goldman Sachs & Co.	0.5	na	0.8	na	0.6	na	na	1.1	2.0	2.4	3.1	na	na	na	4.1	na	2.3	1.6	1.5	
Chase Wealth Management	0.5	3.5	0.6	0.4	0.4	0.5	0.6	0.9	1.7	2.5	3.2	4.5	5.5	4.0	4.2	94.2	2.0	1.7	1.6	
Natl Assn. of Realtors	0.5	3.6	0.7	0.6	0.5	0.7	0.9	1.3	1.8	2.4	3.2	4.2	5.4	4.3 H	4.1	na	2.5	1.9	2.3	
High Frequency Economics	0.5	3.6	na	na	0.6	0.7	0.8	1.2	1.9	2.6	3.3	na	na	na	na	na	2.3	2.0	2.3	
Wells Capital Management	0.5	3.6	0.7	0.5	0.5	0.8 H	1.1 H	1.4	1.9	2.4	2.9 L	4.1	5.4	3.7	4.1	94.6	2.6	1.7	1.7	
BMO Capital Markets	0.5	3.6	0.7	na	0.4	0.6	0.7	1.1	1.9	2.4	3.2	na	na	na	4.1	94.4	2.8	1.5	1.5	
Standard & Poor's Corp.	0.5	3.5	0.7	na	0.4	0.4	0.8	1.0	1.6 L	2.2	2.9 L	3.4 L	4.4	na	4.1	93.1	2.4	2.5	2.8	
Stone Harbor Investment Partners	0.5	3.5	0.6	0.5	0.5	0.6	0.9	1.3	2.0	2.7	3.3	4.2	4.9	na	4.1	94.0	1.5 L	1.5	1.6	
RBS Securities	0.5	3.6	0.6	0.5	0.4	0.5	0.8	1.3	2.0	2.5	3.4	4.3	5.4	4.0	4.2	93.0	2.0	1.5	1.7	
DePrince & Assoc.	0.4	3.4	0.7	0.5	0.3	0.5	0.7	1.1	1.6 L	2.3	3.1	4.1	5.3	3.9	4.1	91.6	2.6	2.0	2.0	
Regions Financial Corporation	0.4	3.4	0.5	0.5	0.2	0.4	0.6	0.9	1.7	2.4	3.2	4.3	5.6	na	4.0	94.2	2.7	1.6	1.5	
Amherst Pierpont Securities	0.4	3.5	0.9	0.5	0.4	0.6	1.0	1.3	2.2	2.7	3.5	4.6	6.1 H	4.2	4.4	95.0	2.3	2.2	2.2	
Woodworth Holdings	0.4	3.6	0.6	0.4	0.4	0.4	0.6	0.9	1.7	2.4	3.2	4.3	5.5	4.0	4.1	91.5	2.0	0.6	0.9	
AIG	0.4	na	na	na	0.3	na	na	0.8 L	na	2.2 L	na	na	5.2	na	3.9	na	2.3	1.6	1.3	
Moody's Capital Markets Group	0.4	3.4	0.6	0.3 L	0.5	0.6	0.8	1.0	1.8	2.4	3.1	4.1	5.6	3.7	4.1	94.3	2.2	1.5	1.5	
Wells Fargo	0.4	3.4	0.6	0.4	0.3	0.4	0.5 L	0.9	1.7	2.3	3.0	4.1	5.5	4.0	4.1	96.0	1.9	1.5	1.7	
The Northern Trust Company	0.4	3.4	0.5	0.4	0.2	0.4	0.5 L	1.0	1.9	2.4	3.2	4.1	5.5	3.8	4.0	na	2.8	1.6	1.7	
Daiwa Capital Markets America	0.4	3.4	0.6	0.3 L	0.3	0.5	0.6	1.0	1.7	2.3	3.1	4.2	5.5	3.7	4.0	95.0	2.7	1.8	1.9	
PNC Financial Services Corp.	0.4	3.6	0.7	na	0.5	0.5	0.7	1.1	1.9	2.5	3.1	na	5.4	3.7	4.0	92.0	2.5	1.6	2.0	
MUFG Union Bank	0.4	3.5	0.5	0.5	0.3	0.4	0.5 L	1.8 H	2.5 H	2.9 H	3.5	4.3	5.5	3.8	4.7 H	93.0	2.9	2.6	3.0 H	
GLC Financial Economics	0.4	3.4	0.5	0.3 L	0.2	0.3 L	0.5 L	0.8 L	1.7	2.3	na	4.2	5.6	3.8	4.1	90.5 L	3.2	1.9	2.6	
MacroFin Analytics	0.4	3.5	0.6	0.4	0.3	0.4	0.5 L	1.0	1.8	2.4	3.2	4.2	5.6	4.0	4.2	94.3	2.5	1.5	1.5	
Loomis, Sayles & Company	0.4	3.4	0.6	0.5	0.4	0.5	0.6	1.0	1.8	2.3	3.0	4.0	5.2	3.8	3.9 L	93.3	2.6	1.5	1.8	
Georgia State University	0.4	3.4	na	na	0.3	0.4	0.5 L	0.9	1.7	2.5	3.2	4.2	5.3	na	4.4	na	2.7	2.6	1.8	
Oxford Economics	0.4	3.4	na	na	0.3	0.3 L	0.6	1.0	1.6 L	2.4	3.1	na	na	na	4.1	94.0	2.8	2.1	1.8	
Action Economics	0.4	3.6	0.4 L	0.4	0.4	0.5	0.6	1.0	1.7	2.5	3.2	4.4	5.7	4.0	4.3	na	2.4	2.0	2.1	
Moody's Analytics	0.3 L	3.3 L	0.8	0.3 L	0.2	0.3 L	0.6	0.9	1.7	2.6	3.2	4.2	5.6	3.5 L	4.2	na	3.4 H	1.9	2.0	
Bank of America Merrill Lynch	0.3 L	na	0.7	na	0.3	na	na	1.0	1.9	2.5	3.2	na	na	na	na	na	2.7	1.6	1.0	
Mesirow Financial	0.3 L	3.3 L	0.6	0.3 L	0.2	0.4	0.5 L	0.9	1.6 L	2.3	3.1	4.6	5.4	4.0	3.9	92.7	2.6	1.4	1.2	
Naroff Economic Advisors	0.3 L	3.3 L	0.5	0.4	0.3	0.5	0.7	1.1	1.9	2.5	3.3	4.4	5.6	4.2	4.4	92.5	2.6	2.2	2.0	
Economist Intelligence Unit	0.3 L	3.3 L	0.9	0.3 L	0.2	0.5	0.7	1.1	1.8	2.5	3.1	na	na	na	4.1	na	2.8	na	2.1	
Comerica Bank	0.3 L	3.3 L	0.5	na	0.2	0.4	0.5 L	0.9	1.7	2.3	3.1	na	3.8 L	na	4.0	na	2.7	1.7	2.2	
Fannie Mae	0.3 L	3.3 L	na	na	0.5	0.6	0.7	1.1	1.8	2.3	3.0	na	na	na	4.0	na	2.4	1.6	1.9	
RidgeWorth Investments	0.3 L	3.3 L	0.5	0.3 L	0.1 L	0.3 L	0.5 L	1.0	2.0	2.6	3.4	4.4	5.6	4.2	4.3	93.0	2.7	2.0	2.4	
December Consensus	0.5	3.5	0.7	0.4	0.4	0.5	0.7	1.1	1.9	2.4	3.2	4.2	5.4	3.9	4.2	93.4	2.5	1.8	1.7	
Top 10 Avg.	0.7	3.7	0.9	0.6	0.6	0.7	0.9	1.4	2.1	2.7	3.4	4.4	5.6	4.1	4.4	94.8	3.0	2.4	2.4	
Bottom 10 Avg.	0.3	3.3	0.5	0.3	0.2	0.3	0.5	0.9	1.6	2.3	3.0	4.0	5.0	3.7	4.0	92.0	2.0	1.3	0.9	
November Consensus	0.4	3.5	0.6	0.4	0.3	0.4	0.6	1.0	1.8	2.4	3.1	4.2	5.3	3.9	4.1	91.9	2.5	1.8	1.9	
Number of Forecasts Changed From A Month Ago:																				
Down	3	4	7	5	5	2	7	4	5	7	7	5	4	6	8	1	12	16	22	
Same	29	24	22	15	20	16	11	16	12	14	14	10	8	6	12	8	26	23	20	
Up	15	13	10	9	17	18	18	27	29	26	23	15	20	11	18	16	9	6	5	
Diffusion Index	63 %	61 %	54 %	57 %	64 %	72 %	65 %	74 %	76 %	70 %	68 %	67 %	75 %	61 %	63 %	80 %	47 %	39 %	32 %	

## Second Quarter 2016

### Interest Rate Forecasts

### Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter--															Avg. For Qtr. A. Fed's Major Currency \$ Index	(Q-Q % Change)		
	Short-Term					Intermediate-Term					Long-Term						(SAAR)		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		B.	C.	D.
	Federal Funds Rate	Prime Bank Rate	LIBOR Rate 3-Mo.	Com Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate		Real GDP	Price Index	Price Index
Swiss Re	1.4 H	4.4 H	1.5 H	1.2 H	1.1	1.2 H	1.4	1.7	2.5	2.8	3.7	4.6	5.6	na	4.7	na	3.2	2.3	3.3
Chmura Economics & Analytics	1.2	4.2	1.4	1.2 H	1.0	1.2 H	1.5	2.0 H	3.1 H	3.5 H	4.2 H	5.2 H	na	na	5.1 H	89.3 L	3.1	1.5	2.3
Scotiabank Group	1.0	4.0	na	na	1.2 H	na	na	2.0 H	2.3	2.7	3.3	na	na	na	na	na	2.6	1.8	1.4
RBC	1.0	4.0	na	na	0.6	na	na	1.4	2.1	2.7	3.4	na	na	na	na	na	3.2	2.1	3.4
RDQ Economics	0.9	3.9	1.2	1.0	1.0	1.2 H	1.4	1.5	2.4	3.3	3.9	4.8	6.0	4.8 H	4.8	99.6 H	2.8	2.0	2.1
J.P. Morgan Chase	0.9	na	0.9	na	na	na	na	1.2	2.0	2.4	3.2	na	na	na	na	na	2.3	1.9	2.2
High Frequency Economics	0.9	4.0	na	na	1.0	1.1	1.3	1.6	2.3	2.9	3.5	na	na	na	na	na	2.5	2.1	2.4
BNP Paribas Americas	0.9	na	1.1	na	na	na	na	1.9	2.4	2.8	na	na	na	na	na	na	1.8 L	na	3.0
Amherst Pierpont Securities	0.9	4.0	1.4	0.9	0.9	1.2 H	1.6 H	1.8	2.7	3.2	4.0	5.2 H	6.7 H	4.7	5.0	96.5	2.9	2.0	2.8
Cycledata Corp.	0.8	4.0	1.0	0.8	0.6	0.7	0.9	1.2	1.8	2.5	3.2	4.2	5.5	3.8	4.2	92.0	2.3	1.8	2.1
DePrince & Associates	0.8	3.8	1.1	0.9	0.7	0.9	1.2	1.5	1.9	2.6	3.3	4.3	5.4	4.1	4.3	92.7	2.7	2.0	2.2
Societe Generale	0.8	3.8	1.0	na	na	na	na	1.0	1.8	2.5	3.1	na	na	na	na	na	2.8	2.1	2.4
Wells Capital Management	0.8	3.9	1.0	0.8	0.9	1.2 H	1.5	1.8	2.2	2.5	2.9 L	4.1	5.5	3.8	4.2	95.1	2.7	1.9	1.7
UBS AG	0.8	na	1.3	na	1.0	na	na	1.4	2.0	2.4	3.1	na	na	na	na	na	2.8	2.3	0.9 L
Goldman Sachs & Co.	0.8	na	1.0	na	0.8	na	na	1.2	2.2	2.7	3.2	na	na	na	4.3	na	2.3	1.9	2.2
Natl Assn. of Realtors	0.8	3.8	1.0	0.9	0.8	0.9	1.3	1.6	2.2	2.5	3.3	4.3	5.6	4.5	4.4	na	2.7	2.0	2.5
BMO Capital Markets	0.7	3.8	0.9	na	0.7	0.9	1.0	1.3	2.0	2.5	3.2	na	na	na	4.2	94.9	2.6	2.4	2.7
Standard & Poor's Corp.	0.7	3.6	0.9	na	0.6	0.7	1.2	1.3	1.8	2.4	3.0	3.6 L	4.5	na	4.2	93.0	2.8	2.6	3.2
Stone Harbor Investment Partners	0.7	3.7	0.9	0.7	0.7	0.8	1.1	1.5	2.2	2.8	3.4	4.3	5.0	na	4.2	95.0	3.2	1.7	1.9
RBS Securities	0.7	3.8	0.9	0.7	0.7	0.9	1.2	1.7	2.2	2.8	3.5	4.6	5.6	4.1	4.5	94.0	2.7	2.0	3.3
Moody's Analytics	0.7	3.7	1.0	0.6	0.4	0.6	0.7	1.0	1.9	2.8	3.4	4.4	5.9	3.7 L	4.5	na	3.2	1.9	2.5
Woodworth Holdings	0.7	3.8	0.9	0.6	0.6	0.7	0.8	1.2	2.0	2.7	3.5	4.6	5.7	4.3	4.4	92.0	2.0	0.7 L	0.9 L
SunTrust Banks	0.7	3.7	1.0	0.6	0.6	0.7	0.9	1.3	2.0	2.4	3.1	4.3	5.6	4.1	4.5	na	1.8 L	1.5	1.4
PNC Financial Services Corp.	0.7	3.8	1.0	na	0.8	0.8	1.0	1.4	2.0	2.5	3.2	na	5.4	3.7 L	4.1	92.1	2.4	1.6	2.0
MUFG Union Bank	0.7	3.8	0.8	0.8	0.6	0.6	0.8	2.0 H	2.7	3.2	3.7	4.4	5.7	3.9	4.8	92.0	2.9	2.9 H	3.6 H
Nomura Securities, Inc.	0.6	3.6	0.8	0.8	na	na	na	1.2	1.9	2.4	3.0	4.2	5.7	na	4.3	na	2.3	1.6	2.3
Georgia State University	0.6	3.4	na	na	0.4	0.5	0.5 L	1.0	1.7 L	2.6	3.2	4.3	5.3	na	4.6	na	2.7	1.8	2.4
Barclays Capital	0.6	3.8	0.8	na	na	na	na	1.4	2.1	2.5	3.2	na	na	na	na	na	2.5	2.2	2.3
MacroFin Analytics	0.6	3.7	0.8	0.6	0.5	0.6	0.7	1.2	1.9	2.6	3.4	4.4	5.8	4.2	4.4	94.7	2.7	1.6	1.8
Wells Fargo	0.6	3.6	0.8	0.7	0.6	0.7	0.8	1.1	1.8	2.4	3.0	4.2	5.6	4.0	4.2	97.3	2.6	1.9	2.2
Action Economics	0.6	3.8	0.4 L	0.6	0.5	0.6	0.8	1.1	1.8	2.5	3.3	4.5	5.8	4.1	4.3	na	2.8	2.4	2.2
Economist Intelligence Unit	0.6	3.6	1.2	0.8	0.4	0.9	1.0	1.5	2.0	2.8	3.4	na	na	na	4.3	na	2.1	na	2.2
GLC Financial Economics	0.6	3.6	0.8	0.6	0.5	0.6	0.7	1.1	2.0	2.6	na	4.6	5.9	4.1	4.4	90.6	3.3	2.0	2.7
Bank of America Merrill Lynch	0.6	na	0.8	na	0.5	na	na	1.2	2.0	2.6	3.3	na	na	na	na	na	2.5	1.9	2.6
Moody's Capital Markets Group	0.6	3.6	0.8	0.4 L	0.6	0.8	1.0	1.2	2.0	2.5	3.2	4.2	5.6	3.8	4.2	94.6	2.5	1.7	1.5
Naroff Economic Advisors	0.6	3.6	0.8	0.7	0.6	0.8	1.0	1.4	2.2	3.0	3.7	4.8	5.9	4.6	4.8	91.4	4.2 H	2.6	2.1
Comerica Bank	0.5	3.5	0.8	na	0.4	0.5	0.6	1.1	1.8	2.4	3.1	na	4.0 L	na	4.1	na	2.7	1.8	2.0
Regions Financial Corporation	0.5	3.5	0.7	0.6	0.4	0.5	0.7	1.1	1.8	2.5	3.3	4.4	5.7	na	4.1	96.2	2.5	2.1	2.1
Fannie Mae	0.5	3.5	na	na	0.6	0.7	0.9	1.3	1.9	2.4	3.1	na	na	na	4.1	na	2.4	2.0	2.5
Chase Wealth Management	0.5	3.5	0.6	0.4 L	0.4	0.5	0.6	0.9 L	1.7 L	2.5	3.2	4.5	5.5	4.0	4.2	94.4	2.5	1.8	1.9
Daiwa Capital Markets America	0.5	3.5	0.8	0.6	0.5	0.7	0.9	1.2	1.8	2.4	3.2	4.2	5.6	3.8	4.2	96.0	2.4	2.0	2.0
RidgeWorth Investments	0.5	3.5	0.8	0.6	0.4	0.5	0.7	1.3	2.2	2.9	3.6	4.5	5.7	4.3	4.6	93.0	2.7	2.0	2.4
Loomis, Sayles & Company	0.5	3.5	0.8	0.6	0.5	0.7	0.8	1.2	1.8	2.4	3.1	4.1	5.2	3.7 L	4.1	93.8	2.4	2.4	2.6
The Northern Trust Company	0.5	3.5	0.6	0.5	0.3 L	0.5	0.6	1.1	2.0	2.5	3.3	4.1	5.4	3.8	4.1	na	2.7	1.6	1.7
Oxford Economics	0.4 L	3.5	na	na	0.3 L	0.4 L	0.8	1.1	1.7 L	2.4	3.2	na	na	na	4.2	94.5	3.3	1.5	2.3
AIG	0.4 L	na	na	na	0.4	na	na	0.9 L	na	2.3 L	na	na	5.1	na	4.0 L	na	2.5	1.9	2.4
Mesirow Financial	0.4 L	3.4 L	0.6	0.4 L	0.3 L	0.5	0.8	1.2	1.9	2.6	3.4	4.1	5.5	4.3	4.2	92.8	2.3	2.2	2.7
December Consensus	0.7	3.7	0.9	0.7	0.6	0.7	1.0	1.3	2.0	2.6	3.3	4.4	5.5	4.1	4.4	93.9	2.7	2.0	2.3
Top 10 Avg.	1.0	4.0	1.2	0.9	1.0	1.1	1.3	1.8	2.5	3.0	3.7	4.7	5.9	4.4	4.7	96.0	3.3	2.4	3.1
Bottom 10 Avg.	0.5	3.5	0.7	0.5	0.4	0.5	0.7	1.0	1.8	2.4	3.0	4.1	5.1	3.8	4.1	91.8	2.2	1.5	1.5
November Consensus	0.6	3.7	0.9	0.7	0.6	0.7	0.9	1.3	2.0	2.6	3.3	4.4	5.4	4.1	4.3	92.3	2.7	1.9	2.3
Number of Forecasts Changed From A Month Ago:																			
Down	6	6	9	7	8	5	5	10	9	10	9	4	3	6	8	1	12	10	7
Same	29	24	21	13	23	16	15	17	15	14	18	13	6	9	11	10	28	25	27
Up	12	11	8	8	11	15	16	20	22	23	17	13	22	9	19	13	7	10	13
Diffusion Index	56 %	56 %	49 %	52 %	54 %	64 %	65 %	61 %	64 %	64 %	59 %	65 %	81 %	56 %	64 %	75 %	45 %	50 %	56 %

## Third Quarter 2016

## Interest Rate Forecasts

## Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter															Avg. For ---Qtr--- Fed's Major Currency \$ Index	----(Q-Q % Change)----				
	Short-Term								Intermediate-Term				Long-Term				---(SAAR)---				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		A.	B.	C.	D.	
	Federal	Prime	LIBOR	Com.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Aaa	Baa	State &		Home	Fed's Major	Real	GDP	Cons.
	Funds	Bank	Rate	Paper	Bills	Bills	Notes	Notes	Notes	Notes	Bond	Bond	Corp.	Corp.	Local		Mtg.	Currency	GDP	Price	Price
	Rate	Rate	3-Mo.	1-Mo.	3-Mo.	6-Mo.	1-Yr.	2-Yr.	5-Yr.	10-Yr.	30-Yr.	Bond	Bond	Bonds	Rate		Index	Index	Index		
Chmura Economics & Analytics	1.8 H	4.8 H	2.0 H	1.8 H	1.5 H	1.8 H	2.1 H	2.6 H	3.7 H	4.0 H	4.7 H	5.6	na	na	5.6 H	87.4 L	3.2	1.7	2.0		
Swiss Re	1.6	4.6	1.7	1.4	1.3	1.4	1.8	2.1	2.8	3.0	3.9	4.7	5.7	na	4.9	na	3.2	1.4	2.4		
Amherst Pierpont Securities	1.3	4.5	1.9	1.4	1.4	1.7	2.1 H	2.4	3.3	3.7	4.5	5.7 H	7.1 H	5.2 H	5.4	97.5	2.8	2.2	2.9		
Scotiabank Group	1.3	4.3	na	na	1.4	na	na	2.3	2.5	2.8	3.3	na	na	na	na	na	2.7	2.0	1.8		
High Frequency Economics	1.3	4.4	na	na	1.4	1.4	1.8	2.0	2.6	3.2	3.7	na	na	na	na	na	2.5	2.2	2.5		
RBC	1.3	4.3	na	na	0.7	na	na	1.6	2.3	2.8	3.4	na	na	na	na	na	3.2	2.5	2.8		
RDQ Economics	1.2	4.2	1.6	1.3	1.4	1.6	1.8	1.9	2.7	3.4	3.9	4.9	5.9	4.7	4.9	102.5 H	2.8	2.1	2.2		
GLC Financial Economics	1.2	4.2	1.4	1.2	1.1	1.2	1.3	1.6	2.5	3.1	na	5.2	6.5	4.6	5.2	90.1	3.5 H	2.5 H	2.8		
DePrince & Associates	1.2	4.2	1.5	1.3	1.1	1.3	1.6	1.9	2.2	2.8	3.5	4.6	5.6	4.3	4.6	92.5	2.8	2.1	2.3		
BNP Paribas Americas	1.2	na	1.3	na	na	na	na	2.0	2.4	2.8	na	na	na	na	na	na	2.0	na	2.9		
J.P. Morgan Chase	1.1	na	1.2	na	na	na	na	1.3	2.0	2.5	3.2	na	na	na	na	na	2.3	1.9	2.2		
Wells Capital Management	1.0	4.2	1.2	1.1	1.1	1.4	1.7	2.0	2.3	2.6	3.0 L	4.3	5.6	3.8	4.3	95.3	2.8	2.1	1.8		
Cycledata Corp.	1.0	4.2	1.2	1.1	1.0	1.1	1.3	1.6	2.2	2.8	3.5	4.6	5.7	4.2	4.4	92.0	2.3	2.0	2.2		
Goldman Sachs & Co.	1.0	na	1.3	na	1.1	na	na	1.5	2.3	2.9	3.3	na	na	na	4.5	na	2.3	2.0	2.4		
Natl Assn. of Realtors	1.0	4.0	1.3	1.2	1.1	1.3	1.6	1.9	2.5	2.8	3.5	4.6	5.8	4.6	4.6	na	2.7	2.1	2.5		
UBS AG	1.0	na	1.5	na	1.3	na	na	1.7	2.2	2.5	3.1	na	na	na	na	na	2.7	2.3	3.0		
BMO Capital Markets	1.0	4.1	1.2	na	0.9	1.1	1.5	1.5	2.2	2.6	3.3	na	na	na	4.3	95.0	2.5	2.2	2.5		
Standard & Poor's Corp.	1.0	3.8	1.2	na	0.8	0.9	1.4	1.5	1.9	2.5	3.1	3.8 L	4.6	na	4.3	93.0	2.8	2.5	1.4		
Stone Harbor Investment Partners	1.0	4.0	1.1	1.0	0.9	1.0	1.3	1.7	2.3	2.9	3.5	4.4	5.1	na	4.3	95.0	2.6	1.9	2.0		
RBS Securities	1.0	4.1	1.1	1.0	1.0	1.2	1.5	1.9	2.4	2.9	3.6	4.7	5.7	4.1	4.6	94.0	2.9	1.7	2.4		
Woodworth Holdings	0.9	4.1	1.1	0.9	0.9	0.9	1.1	1.4	2.3	3.0	3.8	4.9	6.0	4.6	4.7	92.0	2.5	0.9 L	1.0 L		
MacroFin Analytics	0.9	4.0	1.1	0.9	0.8	0.9	1.0	1.5	2.2	2.9	3.7	4.7	6.1	4.5	4.7	95.2	2.5	1.7	1.9		
Wells Fargo	0.9	3.9	1.1	1.0	0.8	0.9	1.0	1.4	1.9	2.4 L	3.1	4.2	5.6	4.1	4.2	98.5	2.6	1.9	2.4		
MUFG Union Bank	0.9	4.0	1.0	1.0	0.9	1.0	1.1	2.2	3.0	3.4	3.8	4.6	5.9	4.0	4.9	90.0	2.8	2.5 H	2.8		
Societe Generale	0.9	3.9	1.1	na	na	na	na	1.2	1.9	2.6	3.2	na	na	na	na	na	2.6	2.3	3.1 H		
Barclays Capital	0.9	4.0	1.1	na	na	na	na	1.6	2.2	2.6	3.2	na	na	na	na	na	2.5	2.0	1.9		
PNC Financial Services Corp.	0.9	4.0	1.2	na	1.0	1.0	1.2	1.6	2.1	2.6	3.2	na	5.3	3.7	4.2	92.3	2.3	1.8	2.2		
Naroff Economic Advisors	0.9	3.9	1.1	1.0	1.0	1.2	1.3	1.7	2.6	3.4	4.2	5.2	6.2	5.0	5.4	89.7	3.2	2.4	2.3		
Bank of America Merrill Lynch	0.8	na	1.1	na	0.8	na	na	1.4	2.1	2.7	3.4	na	na	na	na	na	2.4	1.8	2.2		
Moody's Analytics	0.8	3.8	1.2	0.8	0.5 L	0.6	0.8	1.1 L	2.1	3.2	3.8	4.8	6.3	3.9	4.8	na	3.1	1.8	2.4		
SunTrust Banks	0.8	3.8	1.2	0.8	0.8	0.9	1.2	1.5	2.1	2.5	3.1	4.5	5.8	4.2	4.8	na	1.6 L	1.6	1.5		
Economist Intelligence Unit	0.8	3.8	1.5	1.0	0.8	1.1	1.4	1.8	2.3	3.0	3.6	na	na	na	4.5	na	2.4	na	2.3		
Regions Financial Corporation	0.8	3.8	0.9	0.8	0.6	0.7	0.9	1.3	2.0	2.7	3.5	4.5	5.8	na	4.2	99.0	2.6	1.6	2.3		
Comerica Bank	0.8	3.8	1.1	na	0.7	0.7	0.8	1.2	1.9	2.5	3.2	na	4.1 L	na	4.2	na	2.6	2.0	2.9		
Chase Wealth Management	0.8	3.8	0.9	0.7	0.7	0.8	0.9	1.2	2.0	2.8	3.5	4.8	5.8	4.3	4.5	94.7	3.2	1.9	2.0		
Daiwa Capital Markets America	0.8	3.8	1.1	0.8	0.8	1.0	1.1	1.4	2.0	2.6	3.3	4.3	5.6	3.9	4.3	96.0	2.3	2.1	2.0		
Nomura Securities, Inc.	0.8	3.8	0.9	0.9	na	na	na	1.3	2.0	2.5	3.1	4.4	5.8	na	4.4	na	2.1	1.6	2.3		
RidgeWorth Investments	0.8	3.8	1.0	0.8	0.6	0.8	1.0	1.5	2.5	3.1	3.9	4.7	5.8	4.7	4.8	92.0	2.7	2.2	2.4		
Loomis, Sayles & Company	0.8	3.8	1.0	0.9	0.8	0.9	1.1	1.4	2.1	2.7	3.2	4.3	5.2	3.8	4.3	94.1	2.3	2.3	2.7		
Moody's Capital Markets Group	0.7	3.7	0.9	0.5 L	0.8	0.9	1.1	1.2	2.0	2.5	3.1	4.1	5.6	3.6 L	4.2	95.2	2.4	1.9	1.8		
Action Economics	0.7	3.8	0.6 L	0.7	0.6	0.7	0.9	1.3	1.9	2.6	3.3	4.5	5.8	4.1	4.3	na	2.7	1.5	2.0		
The Northern Trust Company	0.7	3.7	0.8	0.7	0.5 L	0.7	0.8	1.2	2.1	2.6	3.4	4.1	5.3	3.9	4.2	na	2.6	1.7	1.8		
AIG	0.7	na	na	na	0.7	na	na	1.2	na	2.5	na	na	5.1	na	4.2	na	1.7	1.9	2.4		
Fannie Mae	0.6 L	3.6 L	na	na	0.7	0.8	1.1	1.4	2.1	2.4 L	3.1	na	na	na	4.1 L	na	2.3	1.8	2.0		
Oxford Economics	0.6 L	3.6 L	na	na	0.5 L	0.5 L	1.0	1.3	1.8 L	2.5	3.2	na	na	na	4.4	94.6	2.8	1.7	1.4		
Mesirow Financial	0.6 L	3.6 L	0.8	0.7	0.5 L	0.8	1.2	1.7	2.4	3.0	3.7	4.8	5.6	4.7	4.5	93.0	2.4	2.1	2.2		
Georgia State University	0.6 L	3.6 L	na	na	0.6	0.6	0.6 L	1.1 L	1.8 L	2.8	3.3	4.4	5.3	na	4.7	na	2.7	1.7	2.5		
December Consensus	0.9	4.0	1.2	1.0	0.9	1.0	1.3	1.6	2.3	2.8	3.5	4.6	5.7	4.3	4.6	94.0	2.6	2.0	2.2		
Top 10 Avg.	1.3	4.3	1.6	1.3	1.3	1.4	1.7	2.1	2.8	3.3	4.0	5.0	6.2	4.7	5.1	96.9	3.1	2.4	2.8		
Bottom 10 Avg.	0.7	3.7	0.9	0.7	0.6	0.7	0.9	1.2	1.9	2.5	3.1	4.2	5.1	3.9	4.2	91.1	2.1	1.5	1.6		
September Consensus	0.9	3.9	1.2	0.9	0.8	1.0	1.2	1.5	2.2	2.8	3.5	4.6	5.6	4.2	4.5	92.2	2.6	2.0	2.2		
Number of Forecasts Changed From A Month Ago:																					
Down	7	7	10	7	9	7	8	10	7	11	13	5	5	5	6	0	14	10	11		
Same	29	25	20	15	21	16	14	17	20	17	17	10	7	11	16	9	25	29	27		
Up	11	10	10	9	13	14	15	19	18	18	13	17	22	11	18	19	8	6	9		
Diffusion Index	54 %	54 %	50 %	53 %	55 %	59 %	59 %	60 %	62 %	58 %	50 %	69 %	75 %	61 %	65 %	84 %	44 %	46 %	48 %		

## Fourth Quarter 2016 Interest Rate Forecasts

### Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter															Avg. For Qtr. Fed's Major Currency \$ Index	----(Q-Q % Change)----			
	Short-Term							Intermediate-Term					Long-Term				----(SAAR)----			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		A.	B.	C.	D.
	Federal Funds Rate	Prime Bank Rate	LIBOR Rate 3-Mo.	Com Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	Slate & Local Bonds	Home Mtg. Rate		Fed's Major Currency \$ Index	Real GDP	Price Index	Price Index
Chmura Economics & Analytics	2.3 H	5.3 H	2.5 H	2.3 H	2.0 H	2.2 H	2.5	3.1 H	4.1 H	4.4 H	5.0 H	5.8	na	na	6.0	85.7 L	3.2	1.8	1.9	
Swiss Re	1.9	4.9	2.0	1.7	1.6	1.7	2.1	2.4	3.1	3.2	4.0	4.9	5.9	na	5.1	na	3.2	2.4	3.4	
GLC Financial Economics	1.8	4.8	2.1	1.9	1.8	1.8	1.9	2.2	3.1	3.7	na	5.9 H	7.1	5.2	6.1 H	89.9	3.2	2.5	3.0	
Amherst Pierpont Securities	1.8	4.9	2.2	1.9	1.9	2.2 H	2.6 H	2.9	3.6	3.9	4.7	5.9 H	7.3 H	5.4 H	5.7	98.3	2.9	2.2	3.1	
High Frequency Economics	1.6	4.8	na	na	1.8	1.8	2.3	2.5	3.0	3.5	3.9	na	na	na	na	na	2.5	2.2	2.5	
RBC	1.5	4.5	na	na	0.8	na	na	1.9	2.5	3.0	3.5	na	na	na	na	na	2.9	2.0	1.6	
Scotiabank Group	1.5	4.5	na	na	1.7	na	na	2.5	2.6	2.9	3.4	na	na	na	na	na	2.7	2.0	2.2	
DePrince & Assoc.	1.4	4.4	1.8	1.6	1.4	1.5	1.9	2.2	2.4	3.1	3.7	4.8	5.8	4.5	4.9	91.9	2.7	2.3	2.4	
RDQ Economics	1.4	4.4	1.8	1.5	1.6	1.8	2.1	2.3	2.9	3.5	4.0	4.9	6.0	4.8	5.0	103.6 H	2.7	2.2	2.3	
J.P. Morgan Chase	1.4	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	2.3	2.0	2.3	
Naroff Economic Advisors	1.4	4.4	1.6	1.5	1.5	1.7	1.9	2.4	3.2	3.9	4.6	5.7	6.7	5.4	5.8	89.0	2.2	2.6	2.7	
Wells Capital Management	1.3	4.4	1.4	1.3	1.4	1.6	1.9	2.2	2.4	2.8	3.0	4.3	5.7	4.1	4.4	95.5	2.7	2.2	2.0	
Goldman Sachs & Co.	1.3	na	1.6	na	1.4	na	na	1.9	2.6	3.0	3.4	na	na	na	4.6	na	2.3	2.0	2.5	
UBS AG	1.3	na	1.8	na	1.5	na	na	1.9	2.3	2.5	3.1	na	na	na	na	na	2.7	2.3	3.9	
Standard & Poor's Corp.	1.2	4.0	1.4	na	1.1	1.1	1.6	1.7	2.0	2.6	3.2	4.0	4.7	na	4.5	93.1	3.4 H	2.5	2.8	
RBS Securities	1.2	4.3	1.4	1.2	1.2	1.4	1.7	2.1	2.5	3.0	3.7	4.8	5.8	4.2	4.8	95.0	2.9	1.7	2.4	
Natl Assn. of Realtors	1.2	4.2	1.5	1.5	1.3	1.5	1.8	2.1	2.7	3.1	3.8	4.9	5.9	4.7	4.9	na	2.8	2.0	2.4	
SunTrust Banks	1.2	4.2	1.3	0.9	1.1	1.2	1.4	1.7	2.2	2.5	3.2	4.4	5.7	4.1	5.1	na	1.2 L	1.7	1.8	
Woodworth Holdings	1.2	4.3	1.4	1.1	1.1	1.2	1.3	1.7	2.6	3.3	4.1	5.2	6.3	4.9	5.2	91.5	2.5	1.0 L	1.1 L	
Economist Intelligence Unit	1.2	4.2	2.1	1.4	1.0	1.5	1.8	2.0	2.5	3.2	3.8	na	na	na	4.5	na	2.1	na	2.2	
MJFG Union Bank	1.2	4.3	1.3	1.3	1.3	1.4	1.5	2.3	3.0	3.4	3.8	4.8	6.1	4.3	4.9	88.0	2.8	2.5	2.6	
BMO Capital Markets	1.1	4.3	1.3	na	1.1	1.3	1.3	1.6	2.3	2.7	3.4	na	na	na	4.4	95.0	2.4	2.1	2.3	
BNP Paribas Americas	1.1	na	1.4	na	na	na	na	2.1	2.5	2.8	na	na	na	na	na	na	1.9	na	2.9	
Barclays Capital	1.1	4.3	1.3	na	na	na	na	1.7	2.3	2.6	3.2	na	na	na	na	na	2.5	2.0	1.8	
MacroFin Analytics	1.1	4.2	1.3	1.1	1.0	1.1	1.2	1.7	2.4	3.1	3.9	4.9	6.3	4.7	4.9	95.7	2.5	1.8	1.9	
Stone Harbor Investment Partners	1.1	4.1	1.3	1.1	1.0	1.2	1.5	1.8	2.4	3.0	3.5	4.5	5.2	na	4.4	93.0	2.8	1.6	2.2	
Wells Fargo	1.1	4.1	1.3	1.2	1.2	1.3	1.4	1.7	2.0	2.5	3.1	4.3	5.7	4.1	4.3	99.8	2.5	2.0	2.2	
Bank of America Merrill Lynch	1.1	na	1.3	na	1.0	na	na	1.5	2.2	2.7	3.4	na	na	na	na	na	2.4	1.9	2.6	
Comerica Bank	1.0	4.0	1.3	na	0.9	1.0	1.1	1.4	2.1	2.6	3.3	na	4.3 L	na	4.3	na	2.6	1.9	2.1	
Societe Generale	1.0	4.0	1.3	na	na	na	na	1.4	2.0	2.7	3.2	na	na	na	na	na	2.7	2.7 H	4.7 H	
Daiwa Capital Markets America	1.0	4.0	1.3	1.1	1.0	1.2	1.4	1.6	2.2	2.7	3.4	4.4	5.7	4.0	4.5	97.0	2.3	2.1	2.1	
Regions Financial Corporation	1.0	4.0	1.1	1.0	0.7	0.8	1.1	1.4	2.2	2.9	3.7	4.6	5.8	na	4.2	99.4	2.4	1.7	2.2	
Cycledata Corp.	1.0	4.2	1.2	1.1	1.0	1.1	1.3	1.6	2.2	2.8	3.5	4.6	5.7	4.2	4.4	92.0	2.2	2.0	2.2	
RidgeWorth Investments	1.0	4.0	1.3	1.1	0.9	1.1	1.2	1.8	2.8	3.4	4.1	4.9	5.9	4.2	5.1	91.0	2.7	2.2	2.4	
Moody's Analytics	1.0	4.0	1.3	0.9	0.6	0.7	1.1	1.5	2.3	3.3	3.9	4.9	6.4	4.0	5.1	na	2.9	2.1	2.8	
Loomis, Sayles & Company	1.0	4.0	1.3	1.1	1.0	1.2	1.3	1.7	2.3	2.9	3.3	4.4	5.3	3.9	4.5	94.1	2.1	2.4	2.8	
PNC Financial Services Corp.	0.9	4.1	1.3	na	1.1	1.1	1.3	1.7	2.2	2.6	3.2	na	5.3	3.7	4.2	92.0	2.3	1.8	2.2	
AIG	0.9	na	na	na	1.0	na	na	1.2	na	2.6	na	na	5.1	na	4.2	na	2.5	2.0	2.3	
Nomura Securities, Inc.	0.9	3.9	1.1	1.1	na	na	na	1.4	2.0	2.5	3.1	4.4	5.8	na	4.4	na	2.0	1.6	2.2	
Action Economics	0.8	4.0	0.9 L	0.8	0.8	0.9	1.1	1.4	2.0	2.6	3.4	4.5	5.8	4.1	4.4	na	2.7	1.1	2.2	
Fannie Mae	0.8	3.8	na	na	0.9	1.1	1.3	1.6	2.2	2.5	3.2	na	na	na	4.2	na	2.4	1.7	1.9	
Moody's Capital Markets Group	0.8	3.8	1.0	0.6 L	0.9	1.0	1.1	1.2 L	1.9 L	2.4 L	2.9 L	4.0 L	5.4	3.4 L	4.1 L	95.8	2.7	1.8	1.4	
Mesirow Financial	0.8	3.8	1.0	0.8	0.7	1.1	1.6	2.0	2.7	3.2	3.9	4.8	5.7	4.9	4.7	93.1	2.3	2.1	2.2	
Chase Wealth Management	0.8	3.8	0.9 L	0.7	0.7	0.8	0.9	1.2 L	2.0	2.8	3.5	4.8	5.8	4.3	4.5	94.5	3.0	2.0	2.0	
The Northern Trust Company	0.7 L	3.7	0.9 L	0.7	0.6	0.8	0.9	1.3	2.2	2.7	3.5	4.2	5.3	4.0	4.3	na	2.6	1.7	1.8	
Georgia State University	0.7 L	3.7	na	na	0.6	0.7	0.6 L	1.2 L	1.9 L	2.8	3.4	4.6	5.5	na	4.8	na	2.7	1.8	2.4	
Oxford Economics	0.7 L	3.6 L	na	na	0.5 L	0.6 L	1.0	1.3	1.9 L	2.6	3.3	na	na	na	4.4	94.6	2.7	1.9	1.7	
December Consensus	1.2	4.2	1.4	1.2	1.1	1.3	1.5	1.8	2.4	3.0	3.6	4.8	5.8	4.4	4.7	93.9	2.6	2.0	2.4	
Top 10 Avg.	1.7	4.7	1.9	1.7	1.7	1.8	2.1	2.5	3.1	3.6	4.2	5.3	6.4	4.9	5.4	97.5	3.0	2.4	3.2	
Bottom 10 Avg.	0.8	3.8	1.1	0.9	0.7	0.8	1.0	1.3	2.0	2.5	3.1	4.3	5.2	3.9	4.3	90.4	2.1	1.6	1.7	
November Consensus	1.2	4.2	1.4	1.2	1.1	1.2	1.5	1.8	2.4	3.0	3.6	4.7	5.7	4.4	4.7	91.8	2.6	2.0	2.3	
Number of Forecasts Changed From A Month Ago:																				
Down	7	7	9	7	9	4	5	10	9	12	14	7	6	7	13	1	8	11	10	
Same	29	23	19	13	21	19	17	17	18	15	14	10	5	9	12	11	28	25	27	
Up	11	11	10	9	12	13	14	18	17	18	14	13	15	5	13	13	11	9	10	
Diffusion Index	54 %	55 %	51 %	53 %	54 %	63 %	63 %	59 %	59 %	57 %	50 %	60 %	67 %	45 %	50 %	74 %	53 %	48 %	50 %	

# First Quarter 2017

## Interest Rate Forecasts

## Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum-- Average For Quarter															Avg. For	----(Q-Q % Change)----		
	Short-Term					Intermediate-Term					Long-Term					---Qtr---	---(SAAR)---		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	A.	B.	C.	D.
	Federal Funds Rate	Prime Bank Rate	LIBOR Rate 3-Mo.	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate	Fed's Major Currency \$ Index	Real GDP	GDP Price Index	Cons. Price Index
Chmura Economics & Analytics	2.8 H	5.8 H	3.1 H	2.9 H	2.5 H	2.8 H	3.1 H	3.6 H	4.4 H	4.7 H	5.2 H	6.1	na	na	6.3	83.5 L	2.9	1.9	2.1
Swiss Re	2.3	5.3	2.4	2.1	2.0	2.1	2.4	2.7	3.3	3.5	4.3	5.1	6.1	na	5.5	na	3.0	1.0 L	1.0 L
GLC Financial Economics	2.3	5.3	2.5	2.3	2.2	2.3	2.3	2.6	3.5	4.1	na	6.3 H	7.5 H	5.7 H	6.7 H	89.7	2.8	2.7	3.1
Amherst Pierpont Securities	2.1	5.2	2.6	2.2	2.2	2.4	2.8	3.2	3.9	4.1	4.9	6.0	7.4	5.6	6.0	99.0	2.4	2.3	3.2 H
RBC	2.0	5.0	na	na	1.2	na	na	2.3	2.8	3.3	3.7	na	na	na	na	na	2.7	na	1.6
High Frequency Economics	2.0	5.1	na	na	2.1	2.2	2.7	2.9	3.3	3.7	4.0	na	na	na	na	na	2.3	2.3	2.6
Naroff Economic Advisors	1.8	4.8	2.1	2.0	2.0	2.2	2.5	3.0	3.5	4.2	5.1	6.1	7.0	5.7 H	6.1	87.8	2.6	2.8	2.9
Scotiabank Group	1.8	4.8	na	na	1.9	na	na	2.8	2.9	3.1	3.6	na	na	na	na	na	2.8	2.0	2.4
DePrince & Associates	1.7	4.7	2.0	1.9	1.7	1.8	2.2	2.5	2.7	3.3	3.9	5.0	6.0	4.7	5.1	91.5	2.8	2.3	2.6
Economist Intelligence Unit	1.5	4.5	2.3	1.6	1.2	1.8	2.0	2.2	2.7	3.4	4.0	na	na	na	5.0	na	2.6	na	2.2
Goldman Sachs	1.5	na	1.8	na	1.6	na	na	2.0	2.7	3.0	3.4	na	na	na	4.8	na	2.3	2.0	2.4
Cycledata Corp.	1.5	4.7	1.7	1.6	1.5	1.6	1.8	2.1	2.7	3.3	4.0	5.1	6.1	4.7	4.9	92.0	2.1	2.1	2.4
UBS AG	1.5	na	2.0	na	1.8	na	na	2.1	2.5	2.6	3.1	na	na	na	na	na	2.4	2.3	2.5
Wells Capital Management	1.5	4.6	1.6	1.6	1.6	1.8	2.0	2.4	2.5	2.8	3.1	4.4	5.8	4.1	4.5	95.6	2.7	1.8	2.0
SunTrust Banks	1.5	4.5	1.7	1.2	1.3	1.5	1.6	1.8	2.3	2.6	3.2	4.4	5.7	4.1	5.4	na	3.3 H	1.8	2.0
Standard & Poor's Corp.	1.5	4.1	1.7	na	1.2	1.3	1.8	1.8	2.1	2.6	3.3	4.1	4.8	na	4.6	92.3	2.6	3.1 H	2.9
RBS Securities	1.5	4.6	1.6	1.5	1.5	1.7	1.9	2.3	2.8	3.2	3.8	5.0	5.9	4.3	5.0	95.0	2.5	1.6	2.5
Woodworth Holdings	1.4	4.6	1.6	1.4	1.4	1.4	1.6	1.9	2.9	3.5	4.3	5.4	6.6	5.1	5.4	91.0	2.5	1.2	1.2
MacroFin Analytics	1.4	4.5	1.6	1.4	1.3	1.4	1.5	2.0	2.7	3.4	4.2	5.2	6.6	5.0	5.2	96.3	2.3	1.9	2.0
Wells Fargo	1.4	4.4	1.6	1.5	1.4	1.5	1.6	1.9	2.2	2.6	3.2	4.4	5.8	4.2	4.4	100.5 H	2.3	1.9	2.1
MUFG Union Bank	1.4	4.5	1.5	1.5	1.5	1.6	1.8	2.5	3.2	3.5	3.9	5.0	6.2	4.3	5.0	87.0	2.7	2.5	2.4
Natl Assn. of Realtors	1.4	4.5	1.7	1.7	1.5	1.7	2.0	2.2	2.9	3.4	4.0	5.1	6.0	4.9	5.0	na	2.8	2.0	2.5
BNP Paribas Americas	1.4	na	1.5	na	na	na	na	2.3	2.5	2.8	na	na	na	na	na	na	1.9 L	na	1.8
Moody's Analytics	1.4	4.4	1.7	1.2	0.9	1.0	1.5	1.8	2.9	3.7	4.2	5.3	6.8	4.3	5.4	na	3.2	2.5	2.7
Comerica Bank	1.3	4.3	1.6	na	1.1	1.2	1.3	1.6	2.3	2.8	3.4	na	4.5 L	na	4.5	na	2.6	2.1	1.8
Societe Generale	1.3	4.3	1.7	na	na	na	na	1.6	2.2	2.8	3.4	na	na	na	na	na	2.7	2.3	3.0
Stone Harbor Investment Partners	1.3	4.3	1.4	1.3	1.2	1.3	1.6	1.9	2.5	3.0	3.5	4.6	5.3	na	4.5	91.0	2.4	2.3	2.0
Daiwa Capital Markets America	1.3	4.3	1.6	1.3	1.3	1.5	1.6	1.8	2.4	2.8	3.5	4.5	5.8	4.0	4.6	98.0	2.3	2.1	2.2
Loomis, Sayles & Company	1.3	4.3	1.5	1.4	1.3	1.4	1.6	2.0	2.5	3.0	3.3	4.6	5.4	3.9	4.7	94.1	2.0	2.5	2.9
BMO Capital Markets	1.2	4.3	1.4	na	1.2	1.4	1.4	1.8	2.4	2.8	3.5	na	na	na	4.5	94.5	2.3	2.0	2.2
AIG	1.2	na	na	na	1.3	na	na	1.4	na	2.6	na	na	5.1	na	4.2	na	2.3	2.1	2.3
PNC Financial Services Corp.	1.2	4.3	1.5	na	1.3	1.3	1.5	1.8	2.3	2.7	3.2	na	5.3	3.7	4.2	92.0	2.4	2.0	2.4
Barclays Capital	1.1	4.3	na	na	na	na	na	na	na	na	na	na	na	na	na	na	2.5	2.1	1.8
Fannie Mae	1.1	4.1	na	na	1.2	1.4	1.5	1.7	2.3	2.5	3.2	na	na	na	4.2	na	2.2	1.9	2.0
Nomura Securities, Inc.	1.1	4.1	1.2	1.2	na	na	na	1.5	1.9	2.4 L	3.0	4.3	5.8	na	4.4	na	2.0	1.6	2.2
Action Economics	1.1	4.3	1.1	1.0	1.0	1.1	1.3	1.6	2.2	2.7	3.5	4.5	5.9	4.1	4.5	na	2.3	2.0	2.4
Moody's Capital Markets Group	1.0	4.0	1.2	0.7 L	1.1	1.2	1.3	1.3	1.8 L	2.4 L	2.7 L	3.8 L	5.4	3.3 L	4.1 L	96.0	2.6	1.9	1.7
Regions Financial Corporation	1.0	4.0	1.2	1.1	0.8	1.0	1.3	1.6	2.3	3.0	3.8	4.6	5.8	na	4.3	98.2	2.2	1.8	2.4
Chase Wealth Management	1.0	4.0	1.1	0.9	0.9	1.0	1.1	1.4	2.2	3.0	3.7	5.0	6.0	4.5	4.7	94.4	2.7	2.0	2.1
Mesirow Financial	1.0	4.0	1.3	1.0	0.9	1.3	1.8	2.2	2.8	3.3	4.0	4.8	5.7	5.0	4.8	92.7	2.5	2.2	2.1
RidgeWorth Investments	1.0	4.0	1.3	1.1	0.9	1.1	1.2	1.8	2.8	3.4	4.1	4.8	5.7	4.4	5.1	90.0	2.7	2.2	2.2
The Northern Trust Company	1.0	4.0	1.1 L	1.0	0.8	1.0	1.2	1.6	2.3	2.8	3.6	4.3	5.4	4.1	4.4	na	2.4	1.8	1.9
Oxford Economics	0.9 L	3.7 L	na	na	0.7 L	0.8 L	1.2	1.5	2.0	2.7	3.4	na	na	na	4.6	93.8	2.7	2.0	2.1
Georgia State University	0.9 L	4.0	na	na	0.8	1.0	1.0 L	1.3 L	2.1	3.0	3.4	4.6	5.6	na	5.0	na	2.3	1.8	2.2
December Consensus	1.4	4.5	1.7	1.5	1.4	1.5	1.7	2.0	2.6	3.1	3.7	4.9	5.9	4.5	4.9	93.2	2.5	2.1	2.2
Top 10 Avg.	2.0	5.1	2.2	2.0	2.0	2.1	2.4	2.8	3.4	3.8	4.4	5.6	6.6	5.1	5.7	96.8	2.9	2.5	2.8
Bottom 10 Avg.	1.0	4.0	1.2	1.1	0.9	1.0	1.2	1.5	2.1	2.6	3.1	4.3	5.2	4.0	4.3	89.6	2.2	1.6	1.7
November Consensus	1.4	4.4	1.7	1.5	1.3	1.5	1.7	2.0	2.6	3.1	3.8	4.9	5.8	4.5	4.9	90.7	2.5	2.1	2.3
Number of Forecasts Changed From A Month Ago:																			
Down	6	5	8	8	6	7	7	7	9	9	10	10	8	4	11	1	9	8	10
Same	29	26	20	11	24	16	13	20	16	18	14	7	8	8	11	9	29	28	29
Up	9	9	8	8	10	12	15	16	17	16	16	11	14	11	15	15	6	5	5
Diffusion Index	53 %	55 %	50 %	50 %	55 %	57 %	61 %	60 %	60 %	58 %	58 %	52 %	60 %	65 %	55 %	78 %	47 %	46 %	44 %

10 ■ BLUE CHIP FINANCIAL FORECASTS ■ DECEMBER 1, 2015

International Interest Rate And Foreign Exchange Rate Forecasts

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	0.60	0.80	1.30
BNP Paribas Americas	na	na	na
ING Financial Markets	0.55	0.70	0.95
Mizuho Research Institute	0.60	0.85	1.35
Moody's Analytics	0.75	1.02	1.29
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	0.70	0.95	1.45
<b>December Consensus</b>	<b>0.64</b>	<b>0.86</b>	<b>1.27</b>
High	0.75	1.02	1.45
Low	0.55	0.70	0.95
Last Months Avg.	0.44	0.70	1.08

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	0.10	0.10	0.10
BNP Paribas Americas	na	na	na
ING Financial Markets	0.15	0.15	0.15
Mizuho Research Institute	0.17	0.17	0.17
Moody's Analytics	na	na	na
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	0.05	0.05	0.05
<b>December Consensus</b>	<b>0.12</b>	<b>0.12</b>	<b>0.12</b>
High	0.17	0.17	0.17
Low	0.05	0.05	0.05
Last Months Avg.	0.14	0.14	0.14

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	0.60	1.00	1.50
BNP Paribas Americas	na	na	na
ING Financial Markets	0.70	1.00	1.30
Mizuho Research Institute	0.60	0.60	0.85
Moody's Analytics	na	na	na
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	0.65	0.90	1.20
<b>December Consensus</b>	<b>0.64</b>	<b>0.88</b>	<b>1.21</b>
High	0.70	1.00	1.50
Low	0.60	0.60	0.85
Last Months Avg.	0.62	0.67	0.95

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	na	na	na
BNP Paribas Americas	na	na	na
ING Financial Markets	-0.75	-0.70	-0.50
Mizuho Research Institute	na	na	na
Moody's Analytics	na	na	na
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	na	na	na
<b>December Consensus</b>	<b>-0.76</b>	<b>-0.70</b>	<b>-0.60</b>
High	na	na	na
Low	na	na	na
Last Months Avg.	-0.75	-0.75	-0.60

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	0.80	0.80	0.80
BNP Paribas Americas	na	na	na
ING Financial Markets	0.60	0.80	1.40
Mizuho Research Institute	na	na	na
Moody's Analytics	na	na	na
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	0.80	0.80	1.25
<b>December Consensus</b>	<b>0.73</b>	<b>0.80</b>	<b>1.15</b>
High	0.80	0.80	1.40
Low	0.60	0.80	0.80
Last Months Avg.	0.60	0.60	1.10

United States			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
2.40	2.50	na	
2.40	2.50	2.70	
2.55	2.75	2.75	
2.30	2.40	2.50	
2.35	2.45	2.70	
2.58	2.82	3.32	
2.35	2.45	2.40	
2.30	2.40	2.50	
2.37	2.43	2.60	
2.35	2.55	2.75	
2.40	2.40	2.50	
2.29	2.35	2.51	
<b>2.39</b>	<b>2.50</b>	<b>2.66</b>	
2.58	2.82	3.32	
2.29	2.35	2.40	
2.25	2.36	2.56	

Japan			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.35	0.35	na	
0.40	0.50	0.60	
0.50	0.60	0.70	
0.37	0.40	0.45	
0.35	0.45	0.55	
0.43	0.47	0.53	
0.32	0.36	0.40	
0.65	0.90	1.05	
0.32	0.32	0.35	
na	na	na	
0.40	0.45	3.00	
0.42	0.45	0.55	
<b>0.41</b>	<b>0.48</b>	<b>0.82</b>	
0.65	0.90	3.00	
0.32	0.32	0.35	
0.46	0.52	0.61	

United Kingdom			
10 Yr. Gilt Yields %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
2.10	2.20	na	
2.10	2.25	2.45	
2.10	2.20	2.30	
2.10	2.40	2.50	
1.80	1.80	2.00	
2.27	2.59	2.93	
2.02	2.13	2.14	
2.30	2.40	2.50	
2.04	2.15	2.39	
na	na	na	
2.40	2.60	3.00	
2.15	2.30	2.40	
<b>2.13</b>	<b>2.27</b>	<b>2.46</b>	
2.40	2.60	3.00	
1.80	1.80	2.00	
2.03	2.14	2.36	

Switzerland			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
na	na	na	
na	na	na	
na	na	na	
-0.10	0.00	0.10	
na	na	na	
-0.13	-0.02	0.20	
-0.28	-0.18	0.00	
na	na	na	
-0.13	0.02	0.33	
na	na	na	
-0.05	0.10	0.50	
na	na	na	
<b>-0.14</b>	<b>-0.02</b>	<b>0.23</b>	
-0.05	0.10	0.50	
-0.28	-0.18	0.00	
-0.10	0.02	0.29	

Canada			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
na	na	na	
1.75	1.85	2.00	
na	na	na	
1.80	2.10	2.70	
na	na	na	
2.49	2.76	3.14	
1.70	1.80	1.80	
1.65	1.75	1.95	
1.63	1.80	2.13	
1.75	2.00	2.15	
1.80	2.00	2.40	
1.80	1.90	2.10	
<b>1.82</b>	<b>2.00</b>	<b>2.26</b>	
2.49	2.76	3.14	
1.63	1.75	1.80	
1.70	1.85	2.19	

Fed's Major Currency \$ Index			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
na	na	na	
94.4	94.9	95.0	
na	na	na	
na	na	na	
94.0	95.0	96.0	
na	na	na	
94.2	94.8	95.8	
na	na	na	
94.0	94.5	96.6	
na	na	na	
na	na	na	
na	na	na	
<b>94.1</b>	<b>94.8</b>	<b>95.9</b>	
94.4	95.0	96.6	
94.0	94.5	95.0	
93.1	95.0	94.1	

Yen/USD			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
123.0	123.0	na	
123.0	124.0	127.0	
128.0	130.0	134.0	
123.0	125.0	125.0	
126.0	126.0	127.0	
127.0	129.5	132.1	
124.0	125.0	126.0	
126.0	128.0	130.0	
122.7	124.3	125.9	
125.0	128.0	130.0	
na	na	na	
na	na	na	
<b>124.8</b>	<b>126.3</b>	<b>128.6</b>	
128.0	130.0	134.0	
122.7	123.0	125.0	
123.3	124.9	127.3	

USD/Pound Sterling			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.43	1.42	na	
1.52	1.53	1.55	
1.51	1.48	1.52	
1.50	1.40	1.57	
na	na	na	
1.52	1.52	1.54	
1.50	1.50	1.49	
1.57	1.52	1.54	
1.47	1.46	1.44	
1.51	1.51	1.45	
na	na	na	
na	na	na	
<b>1.50</b>	<b>1.48</b>	<b>1.51</b>	
1.57	1.53	1.57	
1.43	1.40	1.44	
1.52	1.52	1.52	

CHF/USD			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.15	1.18	na	
1.01	1.03	1.06	
1.08	1.12	1.14	
1.05	1.11	1.10	
na	na	na	
1.04	1.10	1.16	
1.02	1.02	1.02	
1.03	1.10	1.12	
1.01	1.03	1.05	
1.03	1.03	1.16	
na	na	na	
na	na	na	
<b>1.05</b>	<b>1.08</b>	<b>1.10</b>	
1.15	1.18	1.16	
1.01	1.02	1.02	
1.01	1.04	1.07	

CAD/USD			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.37	1.41	na	
1.35	1.35	1.31	
1.38	1.39	1.38	
1.34	1.36	1.32	
na	na	na	
1.24	1.23	1.18	
1.33	1.34	1.34	
1.35	1.36	1.37	
1.33	1.32	1.28	
1.37	1.37	1.39	
na	na	na	
na	na	na	
<b>1.34</b>	<b>1.35</b>	<b>1.32</b>	
1.38	1.41	1.39	
1.24	1.23	1.18	
1.33	1.33	1.32	



## International Interest Rate And Foreign Exchange Rate Forecasts

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	na	na	na
BNP Paribas Americas	na	na	na
ING Financial Markets	1.90	2.00	2.50
Mizuho Research Institute	na	na	na
Moody's Analytics	na	na	na
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	na	na	na
<b>December Consensus</b>	<b>1.90</b>	<b>2.00</b>	<b>2.50</b>
High	1.90	2.00	2.50
Low	1.90	2.00	2.50
Last Months Avg.	1.90	1.90	2.30

Australia		
10 Yr. Gov't Bond Yield %		
In 3 Mo.	In 6 Mo.	In 12 Mo.
na	na	na
na	na	na
3.10	3.25	3.30
2.90	3.10	3.80
na	na	na
2.81	2.87	2.93
2.97	3.00	2.95
2.80	2.90	3.10
3.04	3.17	3.73
na	na	na
2.70	2.70	3.00
na	na	na
<b>2.90</b>	<b>3.00</b>	<b>3.26</b>
3.10	3.25	3.80
2.70	2.70	2.93
2.82	2.94	3.25

USD/AUD		
In 3 Mo.	In 6 Mo.	In 12 Mo.
0.66	0.64	na
0.70	0.69	0.72
0.68	0.67	0.67
0.67	0.67	0.72
na	na	na
0.69	0.69	0.70
0.72	0.71	0.71
0.69	0.68	0.67
0.69	0.68	0.69
0.70	0.70	0.65
na	na	na
na	na	na
<b>0.69</b>	<b>0.68</b>	<b>0.69</b>
0.72	0.71	0.72
0.66	0.64	0.65
0.70	0.69	0.71

### Eurozone

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	-0.05	-0.05	-0.05
BNP Paribas Americas	na	na	na
ING Financial Markets	-0.07	-0.06	-0.03
Mizuho Research Institute	-0.13	-0.13	-0.13
Moody's Analytics	na	na	na
Moody's Capital Markets	na	na	na
Nomura Securities	-0.05	-0.05	-0.05
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	-0.10	-0.10	-0.05
<b>December Consensus</b>	<b>-0.08</b>	<b>-0.08</b>	<b>-0.06</b>
High	-0.05	-0.05	-0.03
Low	-0.13	-0.13	-0.13
Last Months Avg.	-0.03	-0.06	-0.06

USD/EUR		
In 3 Mo.	In 6 Mo.	In 12 Mo.
1.00	0.98	na
1.07	1.06	1.04
1.04	1.02	1.02
1.02	0.98	1.02
1.05	1.04	1.03
1.04	0.99	0.94
1.04	1.03	1.02
1.05	1.00	1.00
1.08	1.07	1.05
1.05	1.05	0.95
na	na	na
na	na	na
<b>1.04</b>	<b>1.02</b>	<b>1.01</b>
1.08	1.07	1.05
1.00	0.98	0.94
1.08	1.06	1.04

Blue Chip Forecasters	10 Yr. Gov't Bond Yields %											
	Germany			France			Italy			Spain		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.75	0.80	na	na	na	na	na	na	na	na	na	na
BMO Capital Markets	0.65	0.75	0.90	na	na	na	na	na	na	na	na	na
BNP Paribas Americas	0.40	0.45	0.70	0.65	0.70	1.00	1.20	1.25	1.60	1.30	1.30	1.60
ING Financial Markets	0.90	0.95	1.25	1.15	1.20	1.45	1.85	1.80	2.00	1.90	1.85	2.00
Mizuho Research Institute	0.50	0.50	0.60	na	na	na	na	na	na	na	na	na
Moody's Analytics	0.78	0.85	1.02	0.80	0.81	0.85	1.90	1.95	2.15	1.84	1.99	2.25
Moody's Capital Markets	0.60	0.73	0.80	0.93	1.05	1.15	1.56	1.68	1.75	1.70	1.82	1.93
Nomura Securities	0.65	0.75	0.90	na	na	na	na	na	na	na	na	na
Oxford Economics	0.67	0.82	1.13	1.05	1.21	1.54	1.80	2.00	2.31	1.87	2.02	2.35
UBS	1.10	1.30	1.70	1.40	1.60	2.00	2.40	2.60	3.00	na	na	na
Wells Fargo	0.75	0.80	0.95	na	na	na	na	na	na	na	na	na
<b>December Consensus</b>	<b>0.70</b>	<b>0.79</b>	<b>1.00</b>	<b>1.00</b>	<b>1.10</b>	<b>1.33</b>	<b>1.79</b>	<b>1.88</b>	<b>2.14</b>	<b>1.72</b>	<b>1.80</b>	<b>2.03</b>
High	1.10	1.30	1.70	1.40	1.60	2.00	2.40	2.60	3.00	1.90	2.02	2.35
Low	0.40	0.45	0.60	0.65	0.70	0.85	1.20	1.25	1.60	1.30	1.30	1.60
Last Months Avg.	0.77	0.86	1.05	1.18	1.26	1.53	1.97	2.05	2.35	1.95	1.98	2.16

Consensus Forecasts				
10-year Bond Yields vs U.S. Yield				
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-1.91	-1.98	-2.02	-1.84
United Kingdom	-0.30	-0.26	-0.23	-0.20
Switzerland	-2.52	-2.52	-2.52	-2.43
Canada	-0.64	-0.57	-0.50	-0.39
Australia	0.65	0.52	0.50	0.60
Germany	-1.76	-1.68	-1.71	-1.66
France	-1.38	-1.39	-1.41	-1.33
Italy	-0.79	-0.60	-0.62	-0.52
Spain	-0.60	-0.67	-0.70	-0.63

Consensus Forecasts				
3 Mo. Deposit Rates vs U.S. Rate				
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-0.33	-0.52	-0.98	-1.15
United Kingdom	0.17	0.00	0.01	-0.06
Switzerland	-1.21	-1.39	-1.56	-1.77
Canada	0.36	0.09	-0.06	-0.12
Australia	2.23	1.26	1.14	1.23
Eurozone	-0.50	-0.72	-0.94	-1.33

## Viewpoints:

A Sampling of Views on the Economy, Financial Markets and Government Policy  
Excerpted from Recent Reports Issued by our Blue Chip Panel Members and Others

### Fed Milestone: Getting Out Of ZIRP

The Fed has been tiptoeing to the exit since May 2013 when former Chair Ben Bernanke announced that the Fed would taper its bond purchases if the economy continued to improve. The Fed hesitated that fall, as both the growth and inflation data were weaker than expected, but after a three-month delay, it started a steady winding down of its purchase program. In our view, history is likely repeating itself, with a delay in September, followed by the first hike in December.

Looking ahead, we expect the Fed to hike three (or perhaps four) times next year, assuming its growth, inflation and markets forecasts remain on track. Achieving those forecasts should not be difficult. While our core PCE forecast runs slightly below the median FOMC forecast, we think its forecast for both GDP growth and the unemployment rate is too pessimistic. We also believe the markets will be calm around the exit. When the Fed threatened to taper in 2013 there was a “taper tantrum” in the markets, but once the markets adjusted to the idea, the actual tapering had no noticeable difference. We see a similar process at play today, with market volatility in front of the exit, but a calmer response to the now well-telegraphed actual hikes.

A successful Fedexodus – with both higher rates and higher inflation – will be critical to both the US and global economy. With interest rates close to zero in so many countries, the world is vulnerable to another shock. The further down the exit path the Fed goes, the more ammunition it will have to fight the next crisis. Moreover, Fedexodus would create hope that both the BOJ and ECB can follow the same path.

There is still considerable concern that the Fed will only do “one and done” or “two and through.” However, it is worth recalling that similar pessimism emerged in 2003. Some argued that the Fed would “never” be able to normalize, and as the Fed hiked, pessimists repeatedly predicted “one and done.” Seventeen rate hikes later the Fed stopped.

*Ethan Harris, Bank of America-Merrill Lynch, New York, NY*

### That Productivity Thing

J.P. Morgan’s macroeconomic views have rested on two building blocks in recent years. The first is the expectation that divergent demand impulses will prove persistent as developed market (DM) healing occurs alongside an unwind of emerging market (EM) excesses following a growth and credit boom. This tug-of-war has produced weaker-than-expected growth this year, but the contours of activity have aligned with our expectations. DM economies have sustained above-trend growth despite net trade drags related to weak EM demand and currencies. At the same time, subpar EM performance has not derailed the global expansion. Indeed, it has rotated global demand toward DM households by depressing goods prices and global interest rates.

Whether this pattern of bounded and divergent growth can be sustained remains a central focus of our analysis for the year ahead. However, our second building block—a global supply slide that is broadly lowering global potential growth estimates—is central to the medium-term global outlook. We published a special report this week that highlights the continued disappointment in global productivity growth, which slowed to a meager 0.3% rise in the year ending in 2Q15. With productivity trends continuing to weaken and global investment spending still stagnant, we have lowered our estimates of global potential growth for 2016

and 2017 to 2.6%. Cumulatively our estimates of DM and EM potential growth have declined by 0.4%-pt and 1.5%-pts respectively over the past decade.

This forecast revision is less than seems warranted by recent labor force and productivity growth outcomes. Indeed, we project a pickup in labor productivity growth in the coming two years particularly in the US (Table 1). However, a downward trajectory in underlying productivity growth will remain in place and our estimate of US potential has fallen to 1.5%-1.75%. Combined with demographic trends, this development implies lower income gains for households and businesses across the world and lower tax revenues for governments facing elevated public sector debt and rising entitlement liabilities related to aging. Lower potential growth rates also likely reduce equilibrium interest rates. But for any given rate of growth, it means that slack is being eaten up faster or is rising more slowly.

Table 1: US outlook under alternative productivity scenarios

	1Q12 to 4Q15F	2016 (Q4/Q4)	
		Fed	JPM fest
Real GDP (%chg, saar)	2.2	2.2	2.2
Productivity (%chg, saar)*	0.3	1.4	1.1
Employment (1000s, avg mnthly)	214	102	137
Labor force (1000s, avg mnthly)	66	86	86
Unemployment rate (eop)	5.0	4.8	4.5
4-quarter change (avg)	-0.9	-0.2	-0.5

\*Productivity defined as real GDP/NF Payrolls; Source: J.P. Morgan, FRB (shaded area implied by Fed forecasts under 0.7% labor force growth and stable workweek)

There are two aspects of recent economic performance where sliding potential growth has been important. First, it probably helps explain the persistent disappointment in J.P. Morgan’s and consensus economic forecasts, as forecasters have been slow to incorporate weaker underlying trends. Our global Forecast Revision Index (FRI) has fallen 9% since 2007 in line with the gap between realized productivity gains and its trend during the previous expansion.

Second, global core CPI inflation has drifted higher over the past two years, an outcome that seems at odds with our previous estimates of potential, which incorporated a rise in global output gaps. However, global unemployment rates have been falling steadily. Applying an Okun’s law based estimate of the output gap—which points to considerably lower global potential growth rates and a falling output gap—aligns closely with actual core inflation performance.

Although the US Fed has not talked about productivity performance much, we expect it will play an important role guiding the normalization path. The FOMC forecast that the US unemployment rate stabilizes close to its current level implicitly assumes a strong productivity bounce. If our forecast is right, the Fed will be disappointed and see the unemployment rate continue on a downward trajectory alongside a more modest productivity rebound. The implications for policy action should be blunted by the continued appreciation in the dollar we expect, but are a central reason why we expect the Fed to raise policy rates to 1.5% next year.

*Bruce Kasman and David Hensley, JPMorgan Chase Bank, New York, NY*

## Viewpoints

**A Sampling of Views on the Economy, Financial Markets and Government Policy**  
Excerpted from Recent Reports Issued by our Blue Chip Panel Members and Others

### Gradual Likely, But Not Guaranteed

Markets in recent weeks have become more attuned to the possibility of the Fed beginning to lift rates before the end of the year. Following a more hawkish October FOMC statement and string of data that has showed the U.S. expansion is not giving way to weakness overseas, the market-based probability of a December move has risen to around 70 percent.

As liftoff looks more imminent, attention has turned to the eventual pace of tightening. There are certainly reasons to believe the Fed will move more slowly than previous cycles in the months ahead. First, a December move would place the Fed well ahead of other central banks in terms of policy normalization, leading to further appreciation in the already-strong dollar.

Second, potential GDP growth looks to have slowed due to weaker labor force growth and tepid productivity gains. The more cautious outlook on potential GDP suggests a lower long-run level for the fed funds rate, which means the FOMC would not have to raise rates as quickly to get the target rate back to neutral.

Third, Fed officials themselves have indicated a more gradual pace in public speeches, interviews and the “dot plot” (top chart). In the October meeting minutes, “participants generally agreed that it would probably be appropriate to remove policy accommodation gradually.” Participants also noted that raising rates “relatively soon” would allow for the ultimate pace of tightening to be more shallow this cycle.

Even with a December liftoff looking increasingly likely, a more gradual pace of tightening is not guaranteed. In the previous two tightening cycles, the FOMC raised rates not only ahead of market expectations, but ahead of Fed staff projections as well. Yellen, along with St. Louis and Richmond Fed presidents James Bullard and Jeff Lacker, has also stressed the need for the path of policy tightening to also be flexible. With the markets, analysts and Fed officials nearly all expecting a historically gradual pace rate increases, the risks to the outlook for the fed funds path lies to the upside.

*Economics Group, Wells Fargo, Charlotte, NC*

### U.S. Inflation: At Your Service(s)

U.S. inflation, as measured by the consumer price index, is barely visible. It was just 0.2% y/y in October, having spent all of this year within a tenth or two of zero. This run of near-zero inflation readings reflects the relatively-even tug of war between falling goods prices and rising services prices. Goods prices (37% of the CPI) were down 3.4% y/y in October, while services prices (a 63% weight) were up 2.4% y/y.

Lower energy costs account for around 83% of the fall in goods prices during the past year. WTI crude oil prices are down 45% y/y and a cumulative 62% since peaking above \$107 in mid-2014, pulling down the price of gasoline (-27.8% y/y). The decline in this and other petroleum product costs applies downward pressure on other goods and services prices to the extent these petroleum products constitute a major input. For example, airline fares (a service) were down 5.2% y/y in October.

Another factor contributing to falling goods prices is a stronger U.S. dollar. The trade-weighted exchange rate, measured against the broad basket of currencies, has appreciated 12.3% over the past year and a

cumulative 19.2% since hitting lows in mid-2014. This is dragging down the price of imported goods, which is evident in the CPI components where there is a relatively high import content. These include apparel (-1.9% y/y in October), recreation goods (-2.6% y/y), household furnishings and supplies (-1.4% y/y) and information technology goods (-7.4% y/y). These four import-heavy components alone account for about 15% of the fall in goods prices during the past year. And, to the extent imported items constitute a major input for other goods and services, or compete directly against domestically produced items, the dollar's downward pressure on prices ripples.

Higher rent and owners' equivalent rent (OER) account for around 68% of the rise in services prices over the past year. OER is an estimate of how much homeowners would have to pay to rent the house they currently live in. This is heavily influenced by actual rents in the local area and, indirectly, home prices. The latter are currently averaging around 5½% y/y and mildly accelerating, according to the S&P/Case-Shiller and FHFA home price indices. Actual rents rose 3.7% y/y in October, a pace that has also been drifting up. The rental vacancy rate was 7.3% in 2015:Q3, having bounced off a 30-year low (6.8%) in the prior period. The growth in demand for rental units has been outstripping the construction and conversion of new units, ratcheting up rents.

Excluding food and energy, the tug of war between core goods prices and core services prices tilts more to the services side. Core CPI inflation was 1.9% y/y in October, remaining within a tenth or two of 1.8% since the summer of 2012, as rising services prices have been checked (but not fully offset) by falling goods prices. Core goods prices (25% of the core CPI) were down 0.7% y/y in October, while core services prices (a 75% core weight) were up 2.8% y/y.

The grinding mild gain in core services inflation is more than just a rent/OER story. Firstly, these two shelter items account for a slightly smaller share of the annual change in core services prices (at 62.6%) than for total services prices (at 68.6%). Secondly, eyeballing the Consumer Price Index Press Release for October, one notices 3%-plus annual changes for many other core services items, particularly for those in which specialized or skilled labour is a key component, such as financial services, pet services including veterinary, child care, funeral expenses and medical care services. Traditionally, labour costs have been a key driver of core services prices.

The unemployment rate has been halved since peaking in the aftermath of the Great Recession (from 10.0% in October 2009 to 5.0% in October 2015), and now hovers in the FOMC's longer-run projection range (4.9%-to-5.2%). And, broader measures of labour market slack are now improving more quickly than the jobless rate. For example, the (U6) “underemployment” rate is now 9.8%, falling a full percentage point faster than the jobless rate over the past year (compared to 0.7 points in the year to October 2014 and only 0.1 points during the year before). In turn, wage pressures, even seen in average hourly earnings, are starting to sprout.

That some early signs of mounting wage pressures are coinciding with some early indications of faster-rising core services prices is no coincidence; the traditional wage-price dynamic appears to be once again taking root. Although it's early, this should help make the Fed feel “reasonably confident that inflation will move back to its 2 percent objective over the medium term.”

*Michael Gregory, BMO Capital Markets, Toronto, Canada*

## Long-Range Estimates:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2017 through 2021 and averages for the five-year periods 2017-2021 and 2022-2026. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

<b>Interest Rates</b>		<b>Average For The Year</b>					<b>Five-Year Averages</b>	
		<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2017-2021</b>	<b>2022-2026</b>
1. Federal Funds Rate	CONSENSUS	2.0	2.8	3.2	3.3	3.4	2.9	3.3
	Top 10 Average	2.7	3.6	4.0	4.0	4.0	3.7	3.8
	Bottom 10 Average	1.4	2.1	2.3	2.4	2.7	2.2	2.7
2. Prime Rate	CONSENSUS	5.0	5.8	6.2	6.4	6.4	6.0	6.3
	Top 10 Average	5.7	6.5	7.0	7.1	7.0	6.7	6.8
	Bottom 10 Average	4.4	5.2	5.5	5.7	5.8	5.3	5.7
3. LIBOR, 3-Mo.	CONSENSUS	2.3	3.1	3.3	3.4	3.6	3.1	3.5
	Top 10 Average	2.8	3.7	4.0	4.2	4.1	3.8	4.0
	Bottom 10 Average	1.8	2.4	2.6	2.7	3.0	2.5	3.0
4. Commercial Paper, 1-Mo.	CONSENSUS	2.2	3.0	3.4	3.5	3.4	3.1	3.4
	Top 10 Average	2.6	3.5	3.9	4.1	4.0	3.6	3.8
	Bottom 10 Average	1.7	2.4	2.9	2.9	2.9	2.6	2.9
5. Treasury Bill Yield, 3-Mo.	CONSENSUS	2.0	2.8	3.2	3.3	3.3	2.9	3.2
	Top 10 Average	2.8	3.5	3.9	4.0	3.9	3.6	3.7
	Bottom 10 Average	1.4	2.1	2.5	2.7	2.7	2.3	2.6
6. Treasury Bill Yield, 6-Mo.	CONSENSUS	2.1	2.9	3.3	3.4	3.4	3.0	3.3
	Top 10 Average	3.0	3.6	4.0	4.1	4.0	3.7	3.8
	Bottom 10 Average	1.5	2.2	2.6	2.8	2.8	2.4	2.7
7. Treasury Bill Yield, 1-Yr.	CONSENSUS	2.3	3.1	3.4	3.5	3.5	3.2	3.4
	Top 10 Average	3.2	3.8	4.1	4.2	4.2	3.9	4.0
	Bottom 10 Average	1.6	2.3	2.7	2.9	2.9	2.5	2.8
8. Treasury Note Yield, 2-Yr.	CONSENSUS	2.5	3.2	3.5	3.6	3.7	3.3	3.7
	Top 10 Average	3.4	4.0	4.4	4.4	4.4	4.1	4.3
	Bottom 10 Average	1.8	2.4	2.6	2.7	3.0	2.5	3.0
10. Treasury Note Yield, 5-Yr.	CONSENSUS	3.0	3.6	3.8	3.9	4.0	3.6	4.0
	Top 10 Average	3.8	4.4	4.7	4.8	4.8	4.5	4.7
	Bottom 10 Average	2.3	2.7	2.8	2.9	3.2	2.8	3.3
11. Treasury Note Yield, 10-Yr.	CONSENSUS	3.4	3.8	4.1	4.2	4.3	4.0	4.3
	Top 10 Average	4.2	4.7	5.0	5.2	5.2	4.9	5.1
	Bottom 10 Average	2.8	2.9	3.0	3.2	3.5	3.1	3.5
12. Treasury Bond Yield, 30-Yr.	CONSENSUS	4.0	4.4	4.6	4.8	4.9	4.5	4.8
	Top 10 Average	4.9	5.3	5.7	5.9	5.9	5.5	5.7
	Bottom 10 Average	3.3	3.6	3.5	3.7	3.9	3.6	3.9
13. Corporate Aaa Bond Yield	CONSENSUS	5.1	5.5	5.7	5.8	5.8	5.6	5.8
	Top 10 Average	5.7	6.2	6.5	6.6	6.6	6.3	6.5
	Bottom 10 Average	4.5	4.9	5.0	5.0	4.9	4.9	5.2
13. Corporate Baa Bond Yield	CONSENSUS	6.0	6.5	6.7	6.8	6.7	6.5	6.8
	Top 10 Average	6.8	7.2	7.6	7.7	7.6	7.4	7.5
	Bottom 10 Average	5.2	5.7	5.9	6.0	5.8	5.7	6.0
14. State & Local Bonds Yield	CONSENSUS	4.5	4.9	5.0	5.1	5.1	4.9	5.1
	Top 10 Average	5.0	5.5	5.7	5.8	5.8	5.6	5.8
	Bottom 10 Average	4.0	4.3	4.3	4.4	4.4	4.3	4.4
15. Home Mortgage Rate	CONSENSUS	5.1	5.6	5.8	5.9	6.0	5.7	6.0
	Top 10 Average	5.8	6.3	6.7	6.8	6.8	6.5	6.7
	Bottom 10 Average	4.4	4.8	4.9	5.0	5.1	4.9	5.2
A. FRB - Major Currency Index	CONSENSUS	92.8	91.7	91.2	90.8	91.1	91.5	90.1
	Top 10 Average	96.9	96.6	96.4	96.4	96.4	96.5	96.0
	Bottom 10 Average	88.4	86.6	85.7	85.1	85.7	86.3	84.2
		<b>Year-Over-Year, % Change</b>					<b>Five-Year Averages</b>	
		<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2017-2021</b>	<b>2022-2026</b>
B. Real GDP	CONSENSUS	2.5	2.4	2.2	2.2	2.3	2.3	2.2
	Top 10 Average	2.9	2.8	2.6	2.6	2.6	2.7	2.5
	Bottom 10 Average	2.2	1.8	1.8	1.9	1.9	1.9	2.0
C. GDP Chained Price Index	CONSENSUS	2.1	2.1	2.1	2.1	2.1	2.1	2.0
	Top 10 Average	2.3	2.5	2.4	2.3	2.2	2.3	2.2
	Bottom 10 Average	1.8	1.8	1.9	1.9	1.9	1.9	1.9
D. Consumer Price Index	CONSENSUS	2.3	2.4	2.3	2.3	2.3	2.3	2.2
	Top 10 Average	2.8	2.8	2.7	2.6	2.5	2.7	2.5
	Bottom 10 Average	2.0	2.0	2.0	2.0	2.1	2.0	2.0

# Databank:

## 2015 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	-0.8	-0.5	1.5	0.0	1.2	0.0	0.8	0.0	0.0	0.1		
Auto & Light Truck Sales (b)	16.63	16.32	17.06	16.70	17.63	16.95	17.47	17.73	18.06	18.12		
Personal Income (a, current \$)	0.2	0.3	0.0	0.4	0.4	0.4	0.4	0.4	0.2	0.4		
Personal Consumption (a, current \$)	-0.4	0.2	0.5	0.3	0.9	0.3	0.3	0.3	0.1	0.1		
Consumer Credit (e)	3.6	5.5	7.6	7.6	7.0	9.6	6.8	5.6	10.0			
Consumer Sentiment (U. of Mich.)	98.1	95.4	93.0	95.9	90.7	96.1	93.1	91.9	87.2	87.9		
Household Employment (c)	759	96	34	192	272	-56	101	196	-236	320		
Non-farm Payroll Employment (c)	201	266	119	187	260	245	223	153	137	271		
Unemployment Rate (%)	5.7	5.5	5.5	5.4	5.5	5.3	5.3	5.1	5.1	5.0		
Average Hourly Earnings (All, cur. \$)	24.76	24.78	24.85	24.89	24.95	24.95	25.01	25.10	25.11	25.20		
Average Workweek (All, hrs.)	34.6	34.6	34.5	34.5	34.5	34.5	34.6	34.6	34.5	34.5		
Industrial Production (d)	4.5	3.5	2.4	2.1	1.4	1.0	1.3	1.4	0.7	0.4		
Capacity Utilization (%)	78.7	78.4	78.2	78.0	77.6	77.5	78.0	78.0	77.7	77.5		
ISM Manufacturing Index (g)	53.5	52.9	51.5	51.5	52.8	53.5	52.7	51.1	50.2	50.1		
ISM Non-Manufacturing Index (g)	56.7	56.9	56.5	57.8	55.7	56.0	60.3	59.0	56.9	59.1		
Housing Starts (b)	1.080	0.900	0.954	1.190	1.072	1.211	1.152	1.116	1.191	1.060		
Housing Permits (b)	1.059	1.098	1.038	1.140	1.250	1.337	1.130	1.161	1.105	1.150		
New Home Sales (1-family, c)	521	545	485	508	513	469	503	513	447	495		
Construction Expenditures (a)	-1.2	0.6	1.3	3.8	2.3	0.6	0.6	0.7	0.6			
Consumer Price Index (nsa., d)	-0.1	0.0	-0.1	-0.2	0.0	0.1	0.2	0.2	0.0	0.2		
CPI ex. Food and Energy (nsa., d)	1.6	1.7	1.8	1.8	1.7	1.8	1.8	1.8	1.9	1.9		
Producer Price Index (n.s.a., d)	0.0	-0.5	-0.9	-1.1	-0.8	-0.5	-0.8	-0.8	-1.1	-1.6		
Durable Goods Orders (a)	1.9	-3.5	5.1	-1.7	-2.3	4.1	1.9	-2.9	-0.8	3.0		
Leading Economic Indicators (g)	0.2	-0.2	0.4	0.6	0.6	0.6	0.0	-0.1	-0.1	0.6		
Balance of Trade & Services (f)	-42.4	-37.2	-50.6	-40.7	-42.5	-45.2	-41.8	-48.0	40.8			
Federal Funds Rate (%)	0.11	0.11	0.11	0.12	0.12	0.13	0.13	0.14	0.14	0.12		
3-Mo. Treasury Bill Rate (%)	0.03	0.02	0.03	0.02	0.02	0.02	0.03	0.07	0.02	0.02		
10-Year Treasury Note Yield (%)	1.88	1.98	2.04	1.94	2.20	2.36	2.32	2.17	2.17	2.07		

## 2014 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	-1.2	1.2	1.5	0.5	0.5	0.3	0.2	0.6	-0.3	0.4	0.5	-0.9
Auto & Light Truck Sales (b)	15.29	15.51	16.46	16.21	16.64	16.74	16.45	17.22	16.42	16.46	17.02	16.80
Personal Income (a, current \$)	0.5	0.6	0.6	0.2	0.3	0.4	0.3	0.4	0.2	0.4	0.5	0.3
Personal Consumption (a, current \$)	-0.2	0.4	0.8	0.2	0.3	0.5	0.2	0.6	0.2	0.4	0.3	-0.1
Consumer Credit (e)	5.2	5.9	7.5	9.5	7.3	7.1	8.5	5.0	6.2	5.8	5.3	6.7
Consumer Sentiment (U. of Mich.)	81.2	81.6	80.0	84.1	81.9	82.5	81.8	82.5	84.6	86.9	88.8	93.6
Household Employment (c)	535	95	495	-72	144	379	154	50	156	653	71	111
Non-Farm Payroll Employment (c)	166	188	225	330	236	286	249	213	250	221	423	329
Unemployment Rate (%)	6.6	6.7	6.6	6.2	6.3	6.1	6.2	6.1	5.9	5.7	5.8	5.6
Average Hourly Earnings (All, cur. \$)	24.22	24.30	24.34	24.34	24.4	24.46	24.47	24.55	24.55	24.59	24.68	24.62
Average Workweek (All, hrs.)	34.4	34.4	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.6	34.6	34.6
Industrial Production (d)	2.1	2.5	3.1	3.3	3.6	3.9	4.7	4.0	4.0	4.0	4.8	4.6
Capacity Utilization (%)	76.8	77.3	77.8	77.8	78.0	78.2	78.3	78.2	78.5	78.5	79.0	79.0
ISM Manufacturing Index (g)	51.8	54.3	54.4	55.3	55.6	55.7	56.4	58.1	56.1	57.9	57.6	55.1
ISM Non-Manufacturing Index (g)	54.3	52.5	53.7	55.3	56.1	56.3	57.9	58.6	58.1	56.9	58.8	56.5
Housing Starts (b)	0.888	0.951	0.963	1.039	0.986	0.927	1.095	0.966	1.026	1.079	1.007	1.080
Housing Permits (b)	1.002	1.030	1.061	1.074	1.017	1.033	1.041	1.040	1.053	1.120	1.079	1.077
New Home Sales (1-family, c)	446	417	410	410	457	408	403	454	459	472	449	495
Construction Expenditures (a)	-0.4	0.4	0.0	1.4	1.3	-1.6	0.3	0.1	0.6	1.4	-0.6	0.8
Consumer Price Index (s.a., d)	1.6	1.1	1.5	2.0	2.1	2.1	2.0	1.7	1.7	1.7	1.3	0.8
CPI ex. Food and Energy (s.a., d)	1.6	1.6	1.7	1.8	2.0	1.9	1.9	1.7	1.7	1.8	1.7	1.6
Producer Price Index (n.s.a., d)	1.3	1.2	1.6	1.8	2.1	1.8	1.9	1.9	1.6	1.5	1.3	0.9
Durable Goods Orders (a)	-1.4	2.6	3.7	0.9	-0.9	2.7	22.5	-18.3	-0.7	0.3	-2.2	-3.7
Leading Economic Indicators (g)	-0.2	0.6	1.0	0.3	0.6	0.6	1.0	0.1	0.6	0.6	0.3	0.5
Balance of Trade & Services (f)	-39.5	-42.8	-43.1	-44.3	-42.1	-42.4	-41.4	-41.3	-43.2	-42.8	-40.0	-45.6
Federal Funds Rate (%)	0.07	0.07	0.08	0.09	0.09	0.10	0.09	0.09	0.09	0.09	0.09	0.12
3-Mo. Treasury Bill Rate (%)	0.04	0.05	0.05	0.03	0.03	0.04	0.03	0.03	0.02	0.02	0.02	0.03
10-Year Treasury Note Yield (%)	2.86	2.71	2.72	2.71	2.56	2.60	2.54	2.42	2.53	2.30	2.33	2.21

(a) month-over-month % change; (b) millions, saar; (c) month-over-month change, thousands; (d) year-over-year % change; (e) annualized % change; (f) \$ billions; (g) level. Most series are subject to frequent government revisions. Use with care.

16 ■ BLUE CHIP FINANCIAL FORECASTS ■ DECEMBER 1, 2015

Calendar Of Upcoming Economic Data Releases

Monday	Tuesday	Wednesday	Thursday	Friday
<b>November 30</b> Chicago PMI (Nov) Pending Home Sales (Oct) Dallas Fed Survey (Nov)	<b>December 1</b> Markit Manufacturing PMI (Nov, Final) ISM Manufacturing (Nov) Light Vehicle Sales (Nov) Construction Spending (Oct)	<b>2</b> ADP Employment (Nov) Productivity and Costs (Q3, Revised) Beige Book EIA Crude Oil Stocks Mortgage Applications	<b>3</b> ISM Manufacturing (Nov) Markit Services PMI (Nov, Final) Factory Orders (Oct) Weekly Jobless Claims Weekly Money Supply	<b>4</b> Employment (Nov) International Trade (Oct)
<b>7</b> Consumer Credit (Oct)	<b>8</b> NFIB Survey (Nov) JOLTS (Oct)	<b>9</b> Wholesale Trade (Oct) EIA Crude Oil Stocks Mortgage Applications	<b>10</b> Imports Prices (Nov) Quarterly Services Survey (Q3) Federal Budget (Nov) Weekly Jobless Claims Weekly Money Supply	<b>11</b> Consumer Sentiment (Dec, Preliminary, University of Michigan) Retail Sales (Nov) Producer Price Index (Nov) Business Inventories (Oct)
<b>14</b>	<b>15</b> <b>FOMC Meeting</b> Consumer Price Index (Nov) Empire State Survey (Dec) NABH Survey (Dec) TIC Data (Oct)	<b>16</b> <b>FOMC Meeting</b> <b>Statement and Projections</b> <b>2:00 p.m.</b> <b>Press conference</b> <b>2:30 p.m.</b> Industrial Production (Nov) Housing Starts (Nov) Manufacturing PMI (Dec, Flash) EIA Crude Oil Stocks	<b>17</b> Philadelphia Fed Survey (Dec) Current Account (Q3) Weekly Jobless Claims Weekly Money Supply	<b>18</b> Markit Services PMI (Dec, Flash) Kansas City Fed Survey (Dec)
<b>21</b>	<b>22</b> Real GDP (Q3, Third estimate) Richmond Fed Survey (Dec) Existing Home Sales (Nov) FHFA Home Price Index (Oct)	<b>23</b> Durable Goods (Nov) New Home Sales (Nov) Consumer Sentiment (Dec, Final, University of Michigan) Consumer Sentiment (EIA Crude Oil Stocks) Mortgage Applications	<b>24</b> Weekly Jobless Claims Weekly Money Supply	<b>25</b> <b>Christmas Day</b> <b>Bond and Stock Markets Closed</b>
<b>28</b> Dallas Fed Survey (Dec)	<b>29</b> S&P/Case-Shiller Home Price Index (Oct) Consumer Confidence (Dec, Conference Board)	<b>30</b> Pending Home Sales (Nov) EIA Crude Oil Stocks Mortgage Applications	<b>31</b> Chicago PMI (Dec) Weekly Jobless Claims Weekly Money Supply	<b>January 1</b> <b>New Year's Day</b> <b>Bond and Stock Markets Closed</b>
<b>4</b> ISM Manufacturing (Dec) Markit Manufacturing PMI (Dec, Final) Construction Spending (Nov)	<b>5</b> Vehicle Sales (Dec)	<b>6</b> ADP Employment (Dec) International Trade (Nov) ISM Non-Manufacturing (Dec) Markit Services PMI (Dec, Final) Factory Orders (Nov) FOMC Minutes EIA Crude Oil Stocks Mortgage Applications	<b>7</b> Chain Store Sales (Dec) Challenger Job Cut Report Weekly Jobless Claims Weekly Money Supply	<b>8</b> Employment Report (Dec) Wholesale Trade (Nov) Consumer Credit (Nov)

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# THE VALUE LINE

## Investment Survey®

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File in page order in the  
Selection & Opinion binder.

PART 2

Selection & Opinion

MARCH 4, 2016

Dear Subscribers,

As part of our ongoing efforts to keep *The Value Line Investment Survey* the most valuable investment resource for our subscribers, all updated Ranks are now being released on the Value Line Web Site by 8:00 A.M. Eastern Time on Mondays. You can access all the Ranks each week at [www.valueline.com](http://www.valueline.com) by entering your user name and password. We look forward to continuing to provide you with accurate and timely investment research. Thank you.

### The Quarterly Economic Review

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*In Three Parts: Part 1 is the Summary & Index. This is Part 2, Selection & Opinion. Part 3 is Ratings & Reports. Volume LXXI, Number 29.*

Published weekly by VALUE LINE PUBLISHING LLC  
485 Lexington Avenue, New York, NY 10017-2630.

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#### VALUE LINE ECONOMIC AND STOCK MARKET COMMENTARY

The business expansion slowed notably in last year's final quarter; but economic activity should show a modest pickup in the current period. The past year clearly had its ups and downs, with weather-related issues, significant changes in inventories, plunging oil prices, and sharp swings in business and consumer investment combining for plenty of give and take during 2015. On balance, it was 12 months that were headlined by just a nominal gain in first-quarter growth (as weather-induced ills restrained early activity), a snapback during the middle two periods, and headwinds to close out the year (on falling exports, lower inventories, and a decline in energy-sector capital spending). Now, there's little in the current backdrop to imply things have changed dramatically in the first three months. That said, continuing resilience in homebuilding and housing sales, slowly improving retail activity, and a nice rebound in industrial production may take some of the chill out of the winter's results, helping growth to increase by better than 2% this quarter.

Meantime, the old mantra "All's Well That Ends Well" might still be the right call this year. To wit, after an improving, if unexciting, start to 2016, we would expect further gains to follow. So, our economic forecast presented here incorporates higher consumer spending (reflecting solid job growth and improving wages and incomes), continuing resilience in housing and in industries serving that sector, money and credit expansion, and sustained benign inflation. The absence of pricing pressures reflects a lack of excesses in demand. (Low inflation, meantime, figures to keep the Federal Reserve on a very slow tightening track.) Possible inventory building (most likely later this year) also should foster a higher level of growth. However, slumping oil prices, resultant pressure on energy-sector capital spending, and sluggish export activity will act as restraints, likely keeping GDP growth in a modest, but stable, 2.0%-2.5% range this year.

Meanwhile, the business upturn appears to have enviable staying power.

(Continued on page 3720)

#### VALUE LINE FORECAST FOR THE U.S. ECONOMY

##### Statistical Summary for 2015-2017

	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2016	2017
<b>GDP AND OTHER KEY MEASURES</b>									
Real Gross Domestic Product	16455	16544	16655	16779	16779	17008	17142	16720	17206
Total Light Vehicle Sales (Mill. Units)	17.8	17.7	17.7	17.8	17.8	18.0	18.2	17.8	18.2
Housing Starts (Million Units)	1.13	1.15	1.20	1.23	1.30	1.35	1.40	1.22	1.41
After-Tax Profits (\$Bill.)	1713	1823	1882	1838	1884	2005	2014	1857	1982
<b>ANNUALIZED RATES OF CHANGE</b>									
Gross Domestic Product (Real)	1.0	2.2	2.7	3.0	3.0	2.5	3.2	2.3	2.9
GDP Deflator	0.8	1.3	1.5	1.5	1.8	1.8	1.9	1.5	1.9
CPI-All Urban Consumers	0.2	0.5	1.0	1.8	2.0	2.0	2.2	1.3	2.3
<b>AVERAGE FOR THE PERIOD</b>									
National Unemployment Rate	5.0	4.9	4.9	4.8	4.8	4.8	4.8	4.9	4.8
Prime Rate	3.3	3.5	3.7	4.0	4.3	4.5	4.7	3.9	4.9
10-Year Treasury Note Rate	2.2	2.0	2.2	2.3	2.4	2.5	2.5	2.2	2.6



MARCH 4, 2016

VALUE LINE SELECTION & OPINION

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## Value Line Forecast for the U.S. Economy

	ACTUAL					Estimated				
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>GROSS DOMESTIC PRODUCT &amp; ITS COMPONENTS</b> (2009 CHAIN WEIGHTED \$) BILLIONS OF DOLLARS										
Final Sales	14979	15292	15511	15882	16345	16879	17394	17881	18328	18768
Total Consumption	10264	10413	10590	10876	11212	11547	11917	12299	12668	13035
Nonresidential Fixed Investment	1803	1964	2024	2148	2210	2276	2389	2508	2633	2739
Structures	375	423	430	465	457	453	465	483	507	528
Equipment & Software	848	939	970	1026	1058	1106	1173	1237	1299	1351
Residential Fixed Investment	385	437	478	486	529	572	628	666	699	727
Exports	1898	1963	2018	2086	2109	2143	2248	2383	2514	2640
Imports	2358	2410	2436	2529	2654	2736	2906	3065	3219	3380
Federal Government	1236	1214	1144	1116	1113	1130	1133	1127	1127	1133
State & Local Governments	1761	1728	1710	1721	1744	1759	1778	1803	1825	1843
Gross Domestic Product	15518	16155	16664	17348	17939	18599	19485	20471	21486	22551
Real GDP (2009 Chain Weighted \$)	15021	15355	15583	15962	16345	16720	17206	17722	18219	18711
<b>PRICES &amp; WAGES-ANNUAL RATES OF CHANGE</b>										
GDP Deflator	2.0	1.8	1.6	1.6	1.1	1.5	1.9	2.0	2.1	2.2
CPI-All Urban Consumers	3.1	2.1	1.5	1.6	0.4	1.3	2.3	2.5	2.7	2.7
PPI-Finished Goods	6.0	1.9	1.2	1.9	-3.3	0.9	2.8	2.8	2.7	2.6
Employment Cost Index—Total Comp.	2.1	1.9	1.9	2.1	1.9	2.5	3.0	3.0	3.1	3.2
Productivity	0.5	0.9	0.0	0.7	0.4	1.7	1.6	1.8	1.8	1.7
<b>PRODUCTION &amp; OTHER KEY MEASURES</b>										
Industrial Prod. (% Change)	3.3	2.8	1.9	3.7	-0.8	1.5	3.1	3.1	3.0	2.8
Factory Operating Rate (%)	73.9	74.5	74.1	75.3	76.1	75.7	75.3	75.0	74.8	74.5
Nonfarm Inven. Change (2009 Chain Weighted \$)	39.7	72.7	54.3	65.0	90.5	38.8	42.5	55.0	50.0	50.0
Housing Starts (Mill. Units)	0.61	0.78	0.93	1.00	1.11	1.22	1.41	1.50	1.55	1.60
Existing House Sales (Mill. Units)	4.28	4.66	5.07	4.92	5.23	5.29	5.37	5.35	5.33	5.30
Total Light Vehicle Sales (Mill. Units)	12.7	14.4	15.5	16.4	17.4	17.8	18.2	18.0	17.8	17.5
National Unemployment Rate (%)	8.9	8.1	7.4	6.2	5.3	4.9	4.8	4.8	4.8	4.8
Federal Budget Surplus (Unified, FY, \$Bill)	-1297	-1089	-680	-483	-479	-550	-550	-500	-580	-600
Price of Oil (\$Bbl., U.S. Refiners' Cost)	101.75	101.00	100.47	92.23	48.46	40.25	46.50	44.00	53.00	63.00
<b>MONEY &amp; INTEREST RATES</b>										
3-Month Treasury Bill Rate (%)	0.1	0.1	0.1	0.1	0.1	0.5	1.4	2.3	2.6	2.8
Federal Funds Rate (%)	0.1	0.1	0.1	0.1	0.1	0.6	1.4	2.5	3.0	3.0
10-Year Treasury Note Rate (%)	2.8	1.8	2.4	2.5	2.2	2.2	2.6	3.0	3.5	3.7
Long-Term Treasury Bond Rate (%)	3.9	2.9	3.5	3.3	2.9	3.2	4.1	4.2	4.5	4.8
AAA Corporate Bond Rate (%)	4.6	3.7	4.2	4.2	3.9	4.4	5.1	5.5	5.6	5.7
Prime Rate (%)	3.3	3.3	3.3	3.3	3.3	3.9	4.9	5.8	6.2	6.5
<b>INCOMES</b>										
Personal Income (% Change)	6.1	5.0	1.1	4.4	4.4	4.0	5.0	5.0	5.0	4.8
Real Disp. Inc. (% Change)	2.4	3.1	-1.4	2.7	3.4	3.3	3.1	3.2	2.8	2.4
Personal Savings Rate (%)	5.7	7.6	4.8	4.8	5.2	5.5	5.6	6.0	6.2	6.4
After-Tax Profits (\$Bill)	1473	1683	1693	1694	1770	1857	1982	2061	2164	2315
Yr-to-Yr % Change	0.6	17.9	0.6	0.1	4.5	4.9	6.7	4.0	5.0	7.0
<b>COMPOSITION OF REAL GDP-ANNUAL RATES OF CHANGE</b>										
Gross Domestic Product	1.6	2.2	1.5	2.4	2.4	2.3	2.9	3.0	2.8	2.7
Final Sales	1.7	2.1	0.1	2.4	2.9	3.3	3.0	2.8	2.5	2.4
Total Consumption	2.3	1.5	1.7	2.7	3.1	3.0	3.2	3.2	3.0	2.9
Nonresidential Fixed Investment	7.7	9.0	3.0	6.2	2.9	3.0	4.9	5.0	5.0	4.0
Structures	2.3	12.9	1.6	8.1	-1.7	-0.9	2.5	4.0	5.0	4.0
Equipment & Software	13.6	10.8	3.2	5.8	3.1	4.5	6.1	5.5	5.0	4.0
Residential Fixed Investment	0.5	13.5	9.5	1.8	3.8	8.3	9.7	6.0	5.0	4.0
Exports	6.9	3.4	2.8	3.4	1.1	1.6	4.9	6.0	5.5	5.0
Imports	5.5	2.2	1.1	3.8	4.9	3.1	6.2	5.5	5.0	5.0
Federal Government	-2.7	-1.9	-5.7	-2.4	-0.3	1.5	0.3	-0.5	0.0	0.5
State & Local Governments	-3.3	-1.9	-1.0	0.6	1.3	0.9	1.1	1.4	1.2	1.0



ref2015.d021915a

2012 2013 2014 2015 2016 2017 2018

Report Annual Energy Outlook 2015

Scenario ref2015

Reference case

Datekey d021915a

Release Date April 2015

## 20. Macroeconomic Indicators

(billion 2009 chain-weighted dollars, unless otherwise noted)

Indicators	2012	2013	2014	2015	2016	2017	2018
<b>Real Gross Domestic Product</b>	<b>15369</b>	<b>15710</b>	<b>16055</b>	<b>16553</b>	<b>16970</b>	<b>17369</b>	<b>17835</b>
<b>Price Indices</b>							
GDP Chain-type Price Index (2009=1.000)	1.052	1.067	1.084	1.105	1.126	1.146	1.168
<b>Consumer Price Index (1982-84=1.00)</b>							
All-urban	2.30	2.33	2.37	2.37	2.43	2.48	2.53
Energy Commodities and Services	2.46	2.44	2.44	2.05	2.25	2.33	2.39
<b>Wholesale Price Index (1982=1.00)</b>							
All Commodities	2.02	2.03	2.06	2.01	2.07	2.11	2.15
Fuel and Power	2.12	2.12	2.10	1.76	1.92	1.99	2.06
Metals and Metal Products	2.20	2.14	2.16	2.21	2.25	2.28	2.34
Industrial Commodities excluding Energy	1.94	1.96	1.98	2.02	2.06	2.10	2.14
<b>Interest Rates (percent, nominal)</b>							
Federal Funds Rate	0.14	0.11	0.09	0.16	1.76	3.35	3.41
10-Year Treasury Note	1.80	2.35	2.57	2.86	3.75	4.21	4.11
AA Utility Bond Rate	3.83	4.24	4.20	4.30	5.78	6.54	6.21

GDP = Gross domestic product.

Btu = British thermal unit.

-- = Not applicable.

Sources: 2012 and 2013: IHS Economics, Industry and Employment models, November 2014.

Projections: U.S. Energy Information Administration, AEO2015 National Energy Modeling System run ref2015.d021915a.

2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
------	------	------	------	------	------	------	------	------	------

2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
------	------	------	------	------	------	------	------	------	------

18296	18801	19259	19721	20221	20753	21295	21818	22344	22864
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1.190	1.211	1.231	1.252	1.272	1.293	1.314	1.336	1.359	1.382
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2.58	2.63	2.68	2.73	2.78	2.84	2.89	2.94	3.00	3.06
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2.46	2.55	2.65	2.73	2.81	2.89	2.98	3.07	3.16	3.24
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2.20	2.25	2.30	2.34	2.39	2.43	2.47	2.52	2.57	2.61
------	------	------	------	------	------	------	------	------	------

2.16	2.26	2.36	2.43	2.51	2.58	2.67	2.76	2.84	2.91
------	------	------	------	------	------	------	------	------	------

2.39	2.43	2.47	2.51	2.54	2.58	2.62	2.66	2.71	2.76
------	------	------	------	------	------	------	------	------	------

2.18	2.22	2.26	2.29	2.33	2.36	2.40	2.44	2.48	2.52
------	------	------	------	------	------	------	------	------	------

3.39	3.40	3.44	3.40	3.44	3.48	3.56	3.65	3.68	3.69
------	------	------	------	------	------	------	------	------	------

4.12	4.12	4.17	4.11	4.12	4.12	4.14	4.16	4.18	4.21
------	------	------	------	------	------	------	------	------	------

6.17	6.15	6.21	6.13	6.11	6.06	6.06	6.11	6.16	6.21
------	------	------	------	------	------	------	------	------	------

[illegible]

# THE VALUE LINE

## Investment Survey®

### Part 1 Summary & Index

File at the front of the  
Ratings & Reports  
binder. Last week's  
Summary & Index  
should be removed.

February 19, 2016

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The Median of Estimated  
**PRICE-EARNINGS RATIOS**  
of all stocks with earnings

**16.1**

<b>26 Weeks</b>	<b>Market Low</b>	<b>Market High</b>
<b>Ago</b>	<b>3-9-09</b>	<b>5-21-15</b>
18.2	10.3	19.3

The Median of Estimated  
**DIVIDEND YIELDS**  
(next 12 months) of all dividend  
paying stocks under review

**2.6%**

<b>26 Weeks</b>	<b>Market Low</b>	<b>Market High</b>
<b>Ago</b>	<b>3-9-09</b>	<b>5-21-15</b>
2.1%	4.0%	2.0%

The Estimated Median Price  
**APPRECIATION POTENTIAL**  
of all 1700 stocks in the Value Line  
universe in the hypothesized  
economic environment 3 to 5 years hence

**70%**

<b>26 Weeks</b>	<b>Market Low</b>	<b>Market High</b>
<b>Ago</b>	<b>3-9-09</b>	<b>5-21-15</b>
40%	185%	35%

### ANALYSES OF INDUSTRIES IN ALPHABETICAL ORDER WITH PAGE NUMBER

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Chemical (Specialty) (56) .....	554	Household Products (5) .....	1187	Paper/Forest Products (61) .....	1161	Telecom. Equipment (81) .....	939
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\*Reviewed in this week's issue.

In three parts: This is Part 1, the Summary & Index. Part 2 is Selection & Opinion. Part 3 is Ratings & Reports. Volume LXXI, No. 27.

Published weekly by VALUE LINE PUBLISHING LLC, 485 Lexington Avenue, New York, N.Y. 10017-2630

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# Index to Stocks

Prices quoted are as of February 9, 2016.

All shares are traded on the New York Stock Exchange except where noted.

## PAGE NUMBERS

Bold type refers to  
Ratings and Reports;  
italics to Selection  
& Opinion

PAGE NUMBERS		RANKS										Industry Rank										Do Options Trade?					
Bold type refers to Ratings and Reports; italics to Selection & Opinion		Recent Price		Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earnings 12 mos. to 9-30-16	(f) Est'd Div'd next 12 mos.	LATEST RESULTS														
		NAME OF STOCK	Ticker Symbol										Qtr. Ended	Earnings Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago									
		1702	AAON, Inc.	(NDQ)	AAON	20.10	2	3	1	1.25	25- 35	(25- 75%)	21.6	1.1	.93	.22	37	9/30	.24	.22	12/31	.11	.09	YES			
		702	AAR Corp.		AIR	19.63	4	3	3	1.25	30- 50	(55-155%)	15.7	1.5	1.25	.30	29	11/30	.23	.35	3/31	.075	.075	YES			
		1963	AB InBev ADR		BUD	116.11	-	1	-	.95	125- 150	(10- 30%)	22.3	3.5	5.20	4.10	8	9/30	.84	1.53	12/31	1.71	1.242	YES			
		1737	ABB Ltd. ADR		ABB	16.98	4	3	3	1.15	30- 40	(75-135%)	14.4	4.4	1.18	.75	58	12/31	.09	.29	12/31	NIL	NIL	YES			
		381	ABM Industries Inc.		ABM	29.63	3	3	5	.85	35- 50	(20- 70%)	18.3	2.2	1.62	.66	38	10/31	.55	.52	3/31	▲.165	.16	YES			
★★		1416	ACCO Brands ACE Limited		ACCO	5.86	4	4	3	1.20	NAME CHANGED TO CHUBB LTD.										12/31	◆.30	.36	12/31	NIL	NIL	YES
		2599	ACI Worldwide	(NDQ)	ACIW	16.23	3	3	1	1.05	25- 35	(55-115%)	23.2	NIL	.70	NIL	1	9/30	.12	.14	12/31	NIL	NIL	YES			
		1318	ADT Corp. (The)		ADT	27.40	4	3	3	1.05	55- 80	(100-190%)	13.0	3.2	2.10	.88	63	12/31	.49	.51	3/31	▲.22	.21	YES			
		1217	AES Corp.		AES	9.51	4	3	4	1.15	15- 25	(60-165%)	8.3	4.6	1.14	.44	85	9/30	.26	.37	3/31	▲.11	.10	YES			
		156	AGCO Corp.		AGCO	46.38	4	3	4	1.30	50- 70	(10- 50%)	18.9	1.1	2.45	.52	83	12/31	.80	1.18	3/31	▲.13	.12	YES			
		542	AGL Resources		GAS	64.66	-	1	-	.60	65- 75	(10- 15%)	20.0	3.3	3.24	2.12	20	9/30	.09	.19	3/31	▲.53	.51	YES			
		2382	A.H. Belo		AHC	5.75	4	4	5	.95	7- 11	(20- 90%)	30.3	5.6	.19	.32	84	9/30	d.18	.10	3/31	.08	.08	YES			
		740	AK Steel Holding		AKS	2.21	4	5	3	1.85	7- 13	(215-490%)	NMF	NIL	d.13	NIL	93	12/31	d.83	.10	12/31	NIL	NIL	YES			
		2302	AMC Entertainment Hldgs.		AMC	20.06	3	3	3	1.05	35- 55	(75-175%)	15.4	4.0	1.30	.80	21	9/30	.12	.08	12/31	.20	.20	YES			
		2329	AMC Networks	(NDQ)	AMCX	63.86	2	3	2	1.00	110- 155	(70-145%)	11.7	NIL	5.46	NIL	53	9/30	.99	.74	12/31	NIL	NIL	YES			
		1637	AMN Healthcare		AHS	23.04	1	3	2	1.20	35- 55	(50-140%)	14.2	NIL	1.62	NIL	17	9/30	.69	.18	12/31	NIL	NIL	YES			
		1564	ASA Gold & Precious		ASA	8.49	-	3	1	.95	12- 18	(40-110%)	NMF	0.5	NMF	.04	90	11/30	8.33(q)	11.50(q)	12/31	.02	.02	YES			
		921	AT&T Inc.		T	36.65	3	1	5	.75	40- 50	(10- 35%)	13.3	5.2	2.76	1.92	25	12/31	.63	.55	3/31	▲.48	.47	YES			
		1319	AVX Corp.		AVX	11.33	4	3	4	1.05	12- 18	(5- 60%)	15.7	3.9	.72	.44	63	12/31	.17	.23	3/31	◆.105	.105	YES			
		2133	Aaron's Inc.		AAN	20.96	4	3	4	1.00	50- 80	(140-280%)	9.2	0.5	2.27	.10	71	9/30	.39	.39	3/31	▲.025	.023	YES			
2653		199	Abaxis, Inc.	(NDQ)	ABAX	39.83	2	3	3	1.10	55- 80	(10-100%)	29.5	1.1	1.35	.44	4	12/31	.35	.27	3/31	.11	.10	YES			
2654		200	Abbott Labs.		ABT	37.00	3	1	3	1.10	50- 60	(35- 60%)	17.5	2.8	2.12	1.04	4	12/31	.62	.71	3/31	▲.26	.24	YES			
		1607	AbbVie Inc.		ABBV	53.48	2	2	3	1.10	100- 130	(85-145%)	11.0	4.3	4.85	2.28	35	12/31	1.13	.89	3/31	▲.57	.49	YES			
625		2203	Abercrombie & Fitch		ANF	24.13	3	3	3	1.25	35- 55	(45-130%)	23.7	3.3	1.02	.80	75	10/31	.60	.25	12/31	.20	.20	YES			
		426	Aberdeen Australia Fd.	(ASE)	IAF	4.86	-	3	2	1.05	9- 13	(85-165%)	NMF	10.3	NMF	.50	-	10/31	6.21(q)	8.27(q)	3/31	.013	.102	YES			
		1204	Aberdeen Asia-Pac. Fd.	(ASE)	FAX	4.48	-	4	2	.70	6- 10	(35-125%)	NMF	9.4	NMF	.42	-	10/31	5.57(q)	6.58(q)	12/31	.07	.07	YES			
		427	Aberdeen Japan Equity		JEQ	6.71	-	3	3	.90	10- 16	(50-140%)	NMF	1.5	NMF	.10	-	10/31	8.69(q)	8.26(q)	3/31	.048	.049	YES			
		173	ABIOMED Inc.	(NDQ)	ABMD	71.00	2	3	3	1.20	95- 145	(35-105%)	72.4	NIL	.98	NIL	3	12/31	◆.23	.30	12/31	NIL	NIL	YES			
		2600	Accenture Plc		ACN	93.32	2	1	3	1.00	95- 115	(N-25%)	17.9	2.4	5.20	2.26	1	11/30	1.28	1.29	12/31	▲.110	1.02	YES			
		2004	Activision Blizzard	(NDQ)	ATVI	28.81	2	3	2	.95	35- 50	(20-75%)	27.2	0.9	1.06	.26	46	9/30	.17	d.03	12/31	NIL	NIL	YES			
		157	Actuant Corp.		ATU	21.49	4	3	3	1.35	30- 40	(40- 85%)	16.5	0.2	1.30	.04	83	11/30	.31	.38	12/31	.04	.04	YES			
		1302	Acuity Brands		AYI	180.01	1	3	2	1.30	165- 250	(N-40%)	25.9	0.3	6.95	.52	68	11/30	1.65	1.32	3/31	.13	.13	YES			
		1205	Adams Divers. Equity Fd		ADX	11.24	-	2	3	1.00	20- 25	(80-120%)	NMF	2.0	NMF	.23	-	9/30	14.93(q)	16.29(q)	12/31	.01	.08	YES			
		2577	Adobe Systems	(NDQ)	ADBE	73.85	1	3	2	1.10	105- 160	(40-115%)	42.9	NIL	1.72	NIL	26	11/30	.44	.17	12/31	NIL	NIL	YES			
		940	ADTRAN, Inc.	(NDQ)	ADTN	18.29	3	3	5	1.00	25- 35	(35- 90%)	29.5	2.0	.62	.36	81	12/31	.12	.17	3/31	.09	.09	YES			
		2119	Advance Auto Parts		AAP	141.50	3	2	3	.90	155- 210	(10- 50%)	16.1	0.2	8.79	.24	18	9/30	1.95	1.89	3/31	.06	.06	YES			
		1350	Advanced Energy	(NDQ)	AEIS	27.71	3	3	3	1.20	45- 60	(60-115%)	15.5	NIL	1.79	NIL	45	12/31	.32	.50	12/31	NIL	NIL	YES			
		1351	Advanced Micro Dev.	(NDQ)	AMD	1.90	3	5	2	1.50	2- 3	(5- 60%)	NMF	NIL	d.41	NIL	45	12/31	d.10	NIL	12/31	NIL	NIL	YES			
		441	Advisory Board	(NDQ)	ABCO	40.35	3	3	3	.70	50- 75	(25-85%)	63.0	NIL	.64	NIL	9	9/30	.04	.18	12/31	NIL	NIL	YES			

★ Supplementary Report in this week's issue.

▲ Arrow indicates the direction of a change. When it appears with the Latest Dividend, the arrow signals that a change in the regular payment rate has occurred in the latest quarter.

For Timeliness, 3-5 year Target Price Range, or Estimated Earnings 12 months to 9-30-16, the arrow indicates a change since the preceding week. When a diamond ◆ (indicating a new figure) appears alongside the latest quarterly earnings

results, the rank change probably was primarily caused by the earnings report. In other cases, the change is due to the dynamics of the ranking system and could simply be the result of the improvement or weakening of other stocks.

Volume LXXI, Number 27, Issue 1. The Value Line Investment Survey (ISSN 0042-2401) is published weekly by Value Line Publishing LLC, 485 Lexington Avenue, New York, N.Y. 10017-2630 and is accorded expeditious treatment prescribed for newspapers. Subscription rate for one year in the United States and US possessions is \$598. Foreign rates upon request. Periodical Postage Paid at New York, NY and additional mailing offices.

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**CHANGE OF ADDRESS: Postmaster: Send address change to:**  
The Value Line Investment Survey, 485 Lexington Avenue, New York, N.Y. 10017-2630

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February 19, 2016

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**Ratings and Reports;**  
*italics to Selection*  
*& Opinion*

## RANKS

## Industry Rank

## Do Options Trade?

Ratings and Reports; Italics to Selection & Opinion		Recent Price		Safety		Technical		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings. 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS					
NAME OF STOCK		Ticker Symbol	Timeliness			Beta								Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago				
625	1236 AECOM Techn.	ACM	23.78	▼ 4	3 3	1.40	55- 80	(130-235%)	7.4	NIL	3.20	NIL	80	12/31	◆.68	.81	12/31	NIL	NIL	YES	YES		
	1102 Aegion Corp.	AEGN	17.12		3 3 3	1.50	30- 40	(75-135%)	13.6	NIL	1.26	NIL	27	9/30	.44	.43	12/31	NIL	NIL	YES	YES		
	1551 AEGON	AEG	4.83		4 3 3	1.45	6- 9	(25- 85%)	5.6	5.6	.87	.27	79	9/30	.22	.06	12/31	NIL	NIL	YES	YES		
	1738 Aerojet Rocketdyne	AJRD	15.02		3 3 4	1.15	25- 40	(65-165%)	19.5	NIL	.77	NIL	58	8/31	.19	d.18	12/31	NIL	NIL	YES	YES		
	703 AeroVironment	AVAV	24.06		3 3 3	.95	30- 45	(25- 85%)	NMF	NIL	.15	NIL	29	10/31	.19	d.13	12/31	NIL	NIL	YES	YES		
2029	795 Aetna Inc.	AET	97.20		2 2 2	.90	130- 175	(35- 80%)	12.4	1.0	7.86	1.00	31	12/31	1.37	1.22	3/31	.25	.25	YES	YES		
	2531 Affiliated Managers	AMG	119.94		3 3 3	1.40	210- 310	(75-160%)	12.3	NIL	9.74	NIL	57	12/31	2.72	3.02	12/31	NIL	NIL	YES	YES		
	201 Affymetrix Inc.	AFFX	14.04		- 4 -	1.00	15- 25	(5- 80%)	46.8	NIL	.30	NIL	4	9/30	d.07	.03	12/31	NIL	NIL	YES	YES		
	1552 Alliac Inc.	AFL	57.93		3 3 4	1.10	65- 95	(10- 65%)	9.3	2.9	6.24	1.66	79	12/31	1.56	1.29	3/31	.41	.39	YES	YES		
	113 Agilent Technologies	A	35.37		- 3 -	1.30	60- 85	(70-140%)	18.1	1.3	1.95	.46	55	10/31	.50	.88	3/31	▲.115	.10	YES	YES		
457	1565 Agnico Eagle Mines	AEM	33.11		3 3 5	.75	30- 40	(N- 20%)	NMF	1.0	.32	.32	90	9/30	.09	d.07	12/31	.08	.08	YES	YES		
	1595 Agrium, Inc.	AGU	83.69		3 3 4	1.10	135- 200	(60-140%)	10.7	4.3	7.85	3.60	92	12/31	◆1.45	.46	3/31	.875	.78	YES	YES		
	2441 Air Products & Chem.	APD	132.46		2 1 5	1.05	170- 205	(30- 55%)	17.5	2.4	7.55	3.24	50	12/31	1.78	1.55	3/31	.81	.77	YES	YES		
	2532 Aircastr Ltd.	AYR	15.55		4 3 3	1.15	20- 30	(30- 95%)	7.7	6.2	2.03	.96	57	9/30	d.17	.24	12/31	▲.24	.22	YES	YES		
	555 Airgas Inc.	ARG	140.14		- 1 -	.90	150- 180	(5- 30%)	26.8	1.8	5.23	2.52	56	12/31	1.19	1.23	3/31	.60	.55	YES	YES		
★ ★	1809 Akamai Technologies	AKAM	39.57		3 3 3	1.35	100- 145	(155-265%)	20.4	NIL	1.94	NIL	22	12/31	◆.49	.54	12/31	NIL	NIL	YES	YES		
	302 Alaska Air Group	ALK	65.63		2 3 2	1.10	80- 120	(20- 85%)	9.2	1.7	7.16	1.10	33	12/31	1.46	.94	3/31	▲.275	.20	YES	YES		
	1703 Albany Int'l 'A'	AIN	35.60		3 3 3	1.35	45- 70	(25- 95%)	20.9	1.9	1.70	.68	37	12/31	◆.46	.25	3/31	.17	.16	YES	YES		
	1608 Albany Molecular	AMRI	15.05		3 4 1	1.20	18- 30	(20-100%)	53.8	NIL	.28	NIL	35	9/30	d.12	d.27	12/31	NIL	NIL	YES	YES		
	2442 Albemarle Corp.	ALB	49.89		3 3 3	1.35	50- 80	(N- 60%)	13.6	2.3	3.66	1.16	50	9/30	.58	.93	3/31	.29	.275	YES	YES		
2029	941 Alcatel-Lucent ADR(g)	ALU	SEE FINAL SUPPLEMENT - PAGE 2029																				
	1581 Alcoa Inc.	AA	7.81		5 3 3	1.50	14- 20	(80-155%)	28.9	1.5	.27	.12	97	12/31	.04	.33	12/31	.03	.03	YES	YES		
	202 Alere Inc.	ALR	53.14		- 3 -	1.25	50- 75	(N- 40%)	22.6	NIL	2.35	NIL	35	9/30	.54	.49	12/31	NIL	NIL	YES	YES		
	1609 Alexion Pharm.	ALXN	136.46		3 3 2	1.10	185- 275	(35-100%)	27.4	NIL	4.98	NIL	35	12/31	.29	.76	12/31	NIL	NIL	YES	YES		
	2619 Alibaba Group Hldg Ltd.	BABA	61.39		- 4 -	NMF	110- 180	(80-195%)	35.3	NIL	1.74	NIL	30	12/31	.76	.37	12/31	NIL	NIL	YES	YES		
2653	203 Align Techn.	ALGN	58.66		2 3 3	1.15	85- 125	(45-115%)	28.8	NIL	2.04	NIL	4	12/31	.60	.48	12/31	NIL	NIL	YES	YES		
	756 Allegheny Corp.	Y	457.55		3 1 2	.80	505- 615	(10- 35%)	17.1	NIL	26.76	NIL	6	9/30	4.20	7.74	12/31	NIL	NIL	YES	YES		
	1582 Allegheny Techn.	ATI	9.96		5 4 3	1.80	20- 30	(100-200%)	NMF	3.2	d.80	.32	97	12/31	d.56	.20	12/31	▼.08	.18	YES	YES		
	303 Allegiant Travel	ALGT	150.34		3 3 3	1.70	185- 275	(25- 85%)	10.9	0.8	13.78	1.20	33	12/31	3.38	1.83	3/31	.30	.25	YES	YES		
	1320 Allegion plc	ALLE	54.28	▼ 2	3 1	1.10	65- 100	(20- 85%)	18.0	0.9	3.01	.48	63	9/30	.92	.68	3/31	▲.12	.10	YES	YES		
628	1610 Allergan plc	AGN	272.34		- 2 -	.90	320- 430	(20- 60%)	17.9	NIL	15.21	NIL	35	9/30	3.48	3.19	12/31	NIL	NIL	YES	YES		
	902 ALLETE	ALE	54.65		3 2 5	.80	45- 60	(N- 10%)	16.5	3.8	3.31	2.08	19	9/30	1.23	.97	3/31	▲.52	.505	YES	YES		
	442 Alliance Data Sys.	ADS	177.12	▼ 3	3 3	1.05	325- 490	(85-175%)	10.6	NIL	16.78	NIL	9	12/31	4.13	3.45	12/31	NIL	NIL	YES	YES		
	2452 1583 Alliance Resource	ARLP	12.02		5 3 4	1.05	35- 50	(190-315%)	4.1	22.5	2.96	2.70-1.35	97	12/31	.72	1.18	12/31	.675	.638	YES	YES		
	2533 AllianceBernstein Hldg.	AB	17.27		4 3 3	1.15	30- 40	(75-130%)	9.5	10.0	1.81	1.72	57	9/30	.43	.45	12/31	▼.43	.45	YES	YES		
1206	AllianceBernstein Income	ACG	7.65		- 3 3	.40	7- 11	(N- 45%)	NMF	5.0	NMF	.38	-	6/30	8.32(q)	8.42(q)	12/31	.101	.104	YES	YES		
	903 Alliant Energy	LNT	68.35		2 2 3	.80	60- 80	(N- 15%)	17.8	3.4	3.84	2.35	19	9/30	1.59	1.40	3/31	▲.588	.55	YES	YES		
	975 Alliant Transmission	ALSN	22.99	▲ 3	3 3	1.05	35- 50	(50-115%)	16.9	2.6	1.36	.60	59	12/31	◆.08	.28	12/31	.15	.15	YES	YES		
	821 Allscripts Healthcare	MDRX	12.08		3 3 1	1.05	16- 25	(30-105%)	23.2	NIL	.52	NIL	16	9/30	.13	.06	12/31	NIL	NIL	YES	YES		
	757 Allstate Corp.	ALL	63.01		3 1 5	.90	95- 115	(50- 85%)	11.4	1.9	5.51	1.20	6	12/31	◆1.60	1.72	3/31	.30	.28	YES	YES		
830	Allylam Pharm.	ALNY	59.22		3 4 3	1.35	75- 125	(25-110%)	NMF	NIL	d3.52	NIL	42	9/30	d.91	d.58	12/31	NIL	NIL	YES	YES		
	2620 Alphabet Inc.	GOOG	678.11		1 2 2	1.00	875-1175	(30- 75%)	22.0	NIL	30.84	NIL	30	12/31	8.67	5.50	12/31	NIL	NIL	YES	YES		
	1352 Altera Corp.	ALTR	SEE FINAL SUPPLEMENT - PAGE 1648																				
	1704 Altra Industrial Motion	AIMC	21.76		3 3 3	1.50	30- 45	(40-105%)	13.3	2.8	1.63	.60	37	9/30	.39	.25	3/31	.15	.12	YES	YES		
	1989 Altria Group	MO	60.45		2 2 3	.65	55- 75	(N- 25%)	20.1	3.7	3.01	2.26	14	12/31	.64	.62	3/31	.565	.52	YES	YES		
2621	Amazon.com	AMZN	482.07		1 3 1	1.05	450- 670	(N- 40%)	98.4	NIL	4.90	NIL	30	12/31	1.00	.45	12/31	NIL	NIL	YES	YES		
	2601 Amdocs Ltd.	DOX	52.28		3 1 3	.85	60- 70	(15- 35%)	19.0	1.5	2.75	.78	1	12/31	.66	.83	6/30	▲.195	.17	YES	YES		
	796 Amedisys, Inc.	AMED	33.01		2 4 3	1.35	30- 45	(N- 35%)	19.1	NIL	1.73	NIL	31	9/30	.34	.28	12/31	NIL	NIL	YES	YES		
	904 Ameren Corp.	AEE	46.08		3 2 3	.75	40- 50	(N- 10%)	17.5	3.7	2.64	1.72	19	9/30	1.41	1.20	12/31	▲.425	.41	YES	YES		
	922 America Movil	AMX	13.29		- 2 -	1.05	25- 35	(90-165%)	11.9	2.6	1.12	.35	25	9/30	d.05	.22	12/31	.155	.176	YES	YES		
304	American Airlines	AAL	36.19		- 3 -	NMF	65- 95	(80-165%)	5.2	1.1	7.00	.40	33	12/31	5.09	.82	3/31	.10	.10	YES	YES		
	976 Amer. Axle	AXL	11.95		3 4 3	1.40	25- 40	(10-235%)	4.1	NIL	2.89	NIL	59	9/30	.78	.57	12/31	NIL	NIL	YES	YES		
	2029 2646 Amer. Capital, Ltd.	ACAS	12.75		- 5 -	1.20	15- 25	(20- 95%)	10.6	NIL	1.20	NIL	86	9/30	.28	.41	12/31	NIL	NIL	YES	YES		
	2029 2204 Amer. Eagle Outfitters	AEO	13.34		3 3 3	.85	18- 25	(35- 85%)	12.0	3.7	1.11	.50	75	10/31	.35	.22	12/31	.25	.25	YES	YES		
	905 Amer. Elec. Power	AEP	62.37		2 2 4	.70	50- 70	(N- 10%)	16.9	3.6	3.68	2.27	19	12/31	.48	.39	3/31	.56	.53	YES	YES		
2452	2534 Amer. Express	AXP	52.63		3 1 3	1.00	75- 90	(45- 70%)	9.5	2.4	5.53	1.25	57	12/31	1.23	1.39	3/31	.29	.26	YES	YES		
	758 Amer. Financial Group	AFG	66.49		1 2 2	.90	75- 100	(15- 50%)	11.7	1.7	5.69	1.12	6	12/31	1.52	1.35	3/31	.28	.25	YES	YES		
	2535 Amer. Int'l Group	AIG	52.25		3 3 1	1.15	65- 100	(25- 90%)	9.7	2.1	5.38	1.12	57	9/30	.52	1.21	12/31	.28	.125	YES	YES		
	339 American Railcar	ARI	42.12		3 3 3	1.50	55-																



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### RANKS

### Industry Rank

Do Options Trade?

Ratings and Reports; Italics to Selection & Opinion		Recent Price		Safety		Technical		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings. 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS					
																		Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	
NAME OF STOCK		Ticker Symbol				Beta																	
★ ★	2399	Apache Corp.	APA	35.58	5	3	3	1.45	55- 85	(55-140%)	NMF	2.8	d1.40	1.00	96	9/30	d.05	1.97	6/30	♦.25	.25	YES	
	1514	Apartment Investment	AIV	35.45	3	3	3	.90	35- 50	(N- 40%)	58.1	3.7	.61	1.32	28	12/31	♦.43	.25	3/31	▲.33	.28	YES	
	1104	Apogee Enterprises	(ND) APOG	35.74	3	3	3	1.25	60- 80	(70-125%)	13.8	1.4	2.59	.50	27	11/30	.63	.47	3/31	▲.125	.11	YES	
	1996	Apollo Education Group	(ND) APOL	8.56	-	3	-	1.15	15- 25	(75-190%)	15.6	NIL	.55	NIL	77	11/30	.29	.44	12/31	NIL	NIL	YES	
	2647	Apollo Global Mgmt	APO	13.17	4	3	3	1.30	30- 40	(130-205%)	7.2	8.5	1.83	1.12	86	12/31	.08	.23	3/31	▼.28	.86	YES	
2451	2648	Apollo Investment	(ND) AINV	5.04	5	3	3	1.05	9- 14	(80-180%)	8.0	15.9	.63	80-40	86	12/31	♦.21	d.09	6/30	♦.20	.20	YES	
	1398	Apple Inc.	(ND) AAPL	94.99	3	2	4	.95	150- 205	(60-115%)	10.4	2.3	9.16	2.23	64	12/31	3.28	3.08	3/31	.52	.47	YES	
	1705	Applied Ind'l Techn.	AIT	38.76	3	3	3	1.10	45- 65	(15- 70%)	14.9	2.9	2.61	1.12	37	12/31	.61	.72	3/31	▲.28	.27	YES	
	1389	Applied Materials	(ND) AMAT	16.10	3	3	3	1.15	25- 40	(55-150%)	16.1	2.5	1.00	.40	41	10/31	.28	.21	3/31	.10	.10	YES	
	1174	AptarGroup	ATR	74.41	2	2	2	.95	70- 95	(N- 30%)	22.8	1.6	3.27	1.20	51	12/31	♦.68	.63	3/31	.30	.28	YES	
	1783	Aqua America	WTR	32.02	2	2	3	.75	30- 45	(N- 40%)	24.1	2.3	1.33	.74	13	9/30	.38	.38	3/31	.178	.165	YES	
	1740	ARAMARK Holdings	ARMK	30.21	-	3	-	NMF	35- 55	(75- 80%)	25.2	1.3	1.20	.38	58	9/30	.23	.18	3/31	.095	.086	YES	
	319	ArcBest Corp.	(ND) ARCB	19.50	4	3	4	1.45	40- 60	(105-210%)	10.5	1.6	1.86	.32	65	12/31	.21	.54	3/31	.08	.06	YES	
	741	ArcelorMittal	MT	3.23	▲	4	3	1.60	8- 12	(150-70%)	NMF	NIL	d.39	NIL	93	12/31	d3.72	d.53	12/31	NIL	NIL	YES	
	759	Arch Capital Group	(ND) ACGL	67.87	2	1	2	.70	75- 90	(10- 35%)	12.5	NIL	5.41	NIL	6	9/30	1.06	1.50	12/31	NIL	NIL	YES	
	1902	Archer Daniels Mid'd	ADM	33.58	4	2	3	1.10	50- 65	(50- 95%)	11.6	3.6	2.90	1.20	10	12/31	1.19	1.08	3/31	▲.30	.28	YES	
	1810	Arista Networks	ANET	53.00	-	3	-	NMF	90- 135	(70-155%)	31.5	NIL	1.68	NIL	22	9/30	.39	.30	12/31	NIL	NIL	YES	
	1354	ARM Holdings plc	(ND) ARMH	41.39	▼	3	4	1.25	60- 90	(45-115%)	33.1	0.8	1.25	.35	45	12/31	♦.29	.21	12/31	.143	.121	YES	
	1105	Armstrong World Inds.	AWI	37.39	-	3	-	1.20	65- 85	(75-125%)	14.5	NIL	2.57	NIL	27	9/30	.80	.86	12/31	NIL	NIL	YES	
	NAME CHANGED TO ARRIS INT'L PLC																						
	942	Arris Int'l plc	(ND) ARRS	23.10	3	3	3	1.10	30- 45	(30- 95%)	11.4	NIL	2.02	NIL	81	9/30	.56	.81	12/31	NIL	NIL	YES	
	1323	Arrow Electronics	ARW	52.91	3	3	3	1.30	50- 75	(N- 40%)	7.9	NIL	6.74	NIL	63	12/31	♦1.94	1.88	12/31	NIL	NIL	YES	
	2120	Asbury Automotive	ABG	47.02	3	3	3	1.20	65- 95	(40-100%)	21.9	NIL	2.15	NIL	18	12/31	♦1.31	.41	12/31	NIL	NIL	YES	
	2205	Ascena Retail Group	(ND) ASNA	6.62	4	3	3	1.05	20- 30	(200-355%)	8.5	NIL	.78	NIL	75	10/31	.36	.32	12/31	NIL	NIL	YES	
	557	Ashland Inc.	ASH	91.49	3	3	3	1.25	105-160	(15- 75%)	12.2	1.8	7.51	1.65	56	12/31	1.41	1.46	3/31	.39	.34	YES	
★ ★	2020	Aspen Insurance Hldgs.	AHL	42.22	▲	2	2	.80	40- 55	(N- 30%)	8.4	2.0	5.05	.84	32	12/31	♦1.75	.90	3/31	♦.21	.20	YES	
	776	Assoc. Banc-Corp	ASB	16.81	3	3	3	1.10	25- 35	(50-110%)	13.3	2.6	1.26	.44	49	12/31	.27	.31	3/31	.11	.10	YES	
	2538	Assurant Inc.	AIZ	76.49	▲	2	2	.90	55- 80	(N- 5%)	13.3	2.6	5.75	2.00	57	12/31	♦.97	.69	3/31	.50	.27	YES	
	2021	Assured Guaranty	AGO	22.43	3	4	2	1.55	30- 45	(35-100%)	9.0	2.3	2.48	.52	32	9/30	.88	2.09	12/31	.12	.11	YES	
	158	Astec Inds.	(ND) ASTE	37.02	3	3	3	1.25	45- 65	(20- 75%)	19.1	1.1	1.94	.40	83	9/30	.10	.08	12/31	.10	.10	YES	
2655	1502	Astoria Financial	AF	15.29	-	3	-	1.05	15- 20	(N- 30%)	25.1	1.0	.61	.16	39	12/31	.16	.17	3/31	.04	.04	YES	
	1612	AstraZeneca PLC (ADS)	AZN	28.59	3	2	3	.90	30- 45	(5- 55%)	20.6	4.9	1.39	1.40	35	12/31	♦.32	d.13	12/31	NIL	NIL	YES	
	704	Astronics Corp.	(ND) ATRO	29.08	3	3	3	1.10	70- 105	(140-260%)	9.3	NIL	3.12	NIL	29	9/30	.94	.75	12/31	NIL	NIL	YES	
	822	athenahealth	(ND) ATHN	118.31	▼	2	3	1.10	180- 275	(50-130%)	NMF	NIL	.09	NIL	16	12/31	♦.19	.23	12/31	NIL	NIL	YES	
	923	Atlantic Tele-Netw	(ND) ATNI	74.27	3	3	3	.90	55- 85	(N- 15%)	28.5	1.7	2.61	1.28	25	9/30	.51	1.01	3/31	.32	.29	YES	
2241	305	Atlas Air Worldwide	(ND) AAWW	35.27	3	3	4	1.40	50- 75	(40-115%)	7.7	NIL	4.56	NIL	33	9/30	d.51	1.10	12/31	NIL	NIL	YES	
	1355	Aimel Corp.	(ND) ATML	8.03	-	4	-	1.40	10- 17	(25-110%)	42.3	2.0	.19	.16	45	9/30	NIL	.04	12/31	NIL	NIL	YES	
	543	Almos Energy	ATO	70.80	2	1	4	.80	70- 90	(N- 25%)	21.8	2.4	3.25	1.70	20	12/31	1.00	.96	3/31	.42	.39	YES	
	2579	Autodesk, Inc.	(ND) ADSK	42.64	3	3	1	1.30	40- 60	(N- 40%)	NMF	NIL	.25	NIL	26	10/31	d.19	.05	12/31	NIL	NIL	YES	
	2654	Autooliv, Inc.	ALV	97.97	1	3	2	1.20	100-150	(N- 55%)	13.7	2.3	7.15	2.24	59	12/31	2.10	1.65	3/31	.56	.54	YES	
1831	2602	Automatic Data Proc.	(ND) ADP	80.67	2	1	3	.95	105-130	(30- 60%)	23.9	2.9	3.38	2.30	1	12/31	.72	.69	6/30	.53	.49	YES	
	2121	AutoNation, Inc.	AN	46.44	3	3	3	1.00	65- 95	(40-105%)	10.9	NIL	4.27	NIL	18	12/31	.96	1.02	12/31	NIL	NIL	YES	
	2122	AutoZone Inc.	AZO	697.58	1	3	3	.70	605- 905	(N- 30%)	17.1	NIL	40.75	NIL	18	11/30	8.29	7.27	12/31	NIL	NIL	YES	
	NAME CHANGED TO BROADCOM LTD.																						
	1515	AvalonBay Communities	AVB	161.11	2	2	2	.75	200- 270	(25- 70%)	34.6	3.4	4.66	5.40	28	12/31	♦1.13	1.08	6/30	▲1.35	1.25	YES	
	558	Avery Dennison	AVY	62.89	3	3	2	1.10	55- 80	(N- 25%)	18.2	2.4	3.45	1.50	56	12/31	.85	.90	3/31	.37	.35	YES	
	1324	Avigilon Corp.	(ISS) AVO.T	11.93	3	3	3	.95	30- 40	(150-235%)	12.4	NIL	.96	NIL	63	9/30	.27	.25	12/31	NIL	NIL	YES	
	2163	Avis Budget Group	(ND) CAR	24.89	3	4	3	1.55	50- 80	(100-220%)	7.3	NIL	3.41	NIL	66	9/30	1.98	1.91	12/31	NIL	NIL	YES	
	2228	Avista Corp.	AVA	37.91	2	2	3	.75	30- 40	(N- 5%)	19.0	3.6	2.00	1.38	36	9/30	.21	.16	3/31	▲.343	.33	YES	
	1325	Avnet, Inc.	AVT	38.87	3	3	3	1.25	45- 65	(15- 65%)	8.6	1.7	4.53	.68	63	12/31	1.22	1.27	12/31	.17	.16	YES	
1248	1007	Avon Products	AVP	3.43	-	4	-	1.45	11- 17	(220-395%)	10.1	NIL	.34	NIL	52	9/30	d1.58	.21	3/31	▼.18	.06	YES	
	1596	Axial Corp.	AXLL	18.62	-	4	-	1.65	25- 45	(35-140%)	16.9	3.8	1.10	.70	92	9/30	.91	.63	3/31	.16	.16	YES	
	2022	AXIS Capital Hldgs.	AXS	52.20	2	2	1	.80	60- 80	(15- 55%)	11.7	2.7	4.48	1.40	32	12/31	1.23	1.18	3/31	▲.35	.29	YES	
	1903	B&G Foods	BGS	35.44	2	3	3	.80	40- 55	(15- 55%)	18.7	4.0	1.90	1.40	10	9/30	.39	.38	3/31	.35	.34	YES	
	2502	BB&T Corp.	BBT	31.60	▼	4	2	3	1.05	40- 50	(25- 60%)	11.8	3.7	2.68	1.17	54	12/31	.64	.76	3/31	.27	.24	YES
	1028	BCE Inc.	BCE	41.88	3	3	5	.70	40- 65	(N- 55%)	15.5	4.8	2.70	2.00	76	12/31	♦.44	.62	3/31	.489	.536	YES	
	705	B/E Aerospace	(ND) BEAV	41.11	-	3	-	NMF	60- 80	(45- 95%)	13.1	1.9	3.15	.80	29	12/31	.81	.55	12/31	.19	NIL	YES	
	1791	BGC Partners	(ND) BGCP	8.48	2	4																	

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BE-C

PAGE NUMBERS

Bold type refers to  
Ratings and Reports;  
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& Opinion

PAGE NUMBERS		RANKS										Industry Rank										Do Options Trade?	
Bold type refers to Reports and Reports;																							
italics to Selection & Opinion																							
NAME OF STOCK		Ticker Symbol	Recent Price	Timeliness	Safety	Technical	Beta	3-5 year Target Price Range and % appreciation potential	Current P/E Ratio	% Est'd Yield next 12 mos.	Est'd Earnings 12 mos. to 9-30-16	(f) Est'd Div'd next 12 mos.	Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago					
★ ★	1106 Beacon Roofing	(ND) BECN	33.87	2	3	2	1.15	50- 75 (50-120%)	16.9	NIL	2.00	NIL	27	12/31 ♦.41	.26	12/31	NIL	NIL	YES				
	1123 Beazer Homes USA	BZH	6.50	4	5	3	2.15	15- 35 (130-440%)	5.0	NIL	1.30	NIL	47	12/31 ♦d.02	d.68	12/31	NIL	NIL	YES				
	177 Becton, Dickinson	BDX	134.34	1	1	2	.80	170- 205 (25- 55%)	16.0	2.1	8.40	2.76	3	12/31 1.96	1.53	3/31	.66	.60	YES				
	2165 Bed Bath & Beyond	(ND) BBBY	43.67	4	1	3	.85	80-100 (85-130%)	8.6	NIL	5.06	NIL	66	11/30 1.09	1.19	12/31	NIL	NIL	YES				
★ ★	1303 Belden Inc.	BDC	45.74	3	3	4	1.45	60- 85 (30- 85%)	17.0	0.4	2.69	.20	68	12/31 ♦1.17	.35	3/31	.05	.05	YES				
	2353 Belmont Ltd.	BEL	8.55	5	4	4	1.40	16- 25 (85-190%)	47.5	NIL	.18	NIL	48	9/30 .10	.17	12/31	NIL	NIL	YES				
	1176 Bemis Co.	BMS	48.53	3	1	3	.85	55- 70 (15-45%)	17.9	2.4	2.71	1.16	51	12/31 .60	.57	3/31 ▲.29	.28	.28	YES				
	1326 Benchmark Electronics	BHE	21.27	▲3	3	5	1.15	25- 35 (20- 65%)	12.5	NIL	1.70	NIL	63	12/31 ♦.45	.43	12/31	NIL	NIL	YES				
	760 Berkley (W.R.)	WRB	51.39	2	1	2	.80	60- 75 (15-45%)	14.7	0.9	3.50	.48	6	12/31 .89	.73	12/31	.12	.22	YES				
	761 Berkshire Hathaway 'B'	BRKB	127.72	3	1	4	.80	190- 235 (50- 85%)	13.7	NIL	9.30	NIL	6	9/30 3.82	1.87	12/31	NIL	NIL	YES				
2030	2166 Best Buy Co.	BBY	27.92	4	3	5	1.10	35- 50 (25- 80%)	9.9	3.3	2.81	.92	66	10/31 .41	.32	12/31	.23	.38	YES				
	2167 Big 5 Sporting Goods	(ND) BGFV	12.65	4	4	5	1.05	15- 25 (20-100%)	15.6	3.2	.81	.40	66	9/30 .28	.34	12/31	.10	.10	YES				
	2134 Big Lots Inc.	BIG	36.34	3	3	4	1.00	65- 95 (80-160%)	11.6	2.4	3.13	.88	71	10/31 d.03	d.06	12/31	.19	.17	YES				
	205 Bio-Rad Labs. 'A'	BIO	124.66	3	2	2	.90	135- 185 (10-50%)	33.0	NIL	3.78	NIL	4	9/30 .59	.39	12/31	NIL	NIL	YES				
	832 Bio-Techne Corp.	(ND) TECH	84.69	3	1	4	.85	100- 120 (20-40%)	27.1	1.6	3.12	1.32	42	12/31 .88	.89	3/31	.32	.32	YES				
	1613 Biogen	(ND) BIIB	249.99	3	3	3	1.05	435- 655 (75-160%)	14.4	NIL	17.33	NIL	35	12/31 3.77	3.72	12/31	NIL	NIL	YES				
	833 BioMarin Pharmac.	(ND) BMRN	65.11	3	3	2	1.10	150- 200 (130-205%)	NMF	NIL	d.71	NIL	42	9/30 d.60	.05	12/31	NIL	NIL	YES				
	966 BioScrip, Inc.	(ND) BIOS	1.50	-	-	-	.85	3- 5 (100-235%)	NMF	NIL	d.72	NIL	15	9/30 d.27	d.55	12/31	NIL	NIL	YES				
	943 Black Box	(ND) BBOX	8.18	5	3	3	1.20	25- 35 (205-300%)	7.9	5.4	1.04	.44	81	12/31 .37	.34	3/31	.11	.10	YES				
	2229 Black Hills	BKH	52.03	3	2	5	.90	45- 60 (N-15%)	19.3	3.2	2.69	1.68	36	12/31 .71	.76	3/31 ▲.42	.405	.405	YES				
1426	584 BlackBerry	(ND) BBRY	6.72	4	4	3	1.30	10- 12 (50-80%)	NMF	NIL	d.26	NIL	43	11/30 d.03	.01	12/31	NIL	NIL	YES				
	2539 BlackRock, Inc.	BLK	294.53	3	3	3	1.20	375- 550 (25- 85%)	14.5	3.1	20.25	9.16	57	12/31 5.11	4.77	3/31 ▲2.29	2.18	2.18	YES				
	2649 Blackstone Group LP	BX	24.46	3	3	3	1.45	45- 70 (85-185%)	6.4	10.0	3.80	2.44	86	12/31 .37	1.25	3/31 ▲.61	.78	.78	YES				
	2540 Block (H&R)	HRB	34.18	3	3	3	.90	35- 55 (N-60%)	18.0	2.3	1.90	.80	57	10/31 d.54	d.41	3/31	.20	.20	YES				
	352 Bloomin' Brands	(ND) BLMN	15.69	3	3	4	1.05	25- 40 (60-155%)	12.0	1.5	1.31	.24	11	9/30 .13	.10	12/31	.06	NIL	YES				
★ ★	2623 Blue Nile	(ND) NILE	31.11	3	3	1	1.10	45- 70 (45-125%)	32.1	NIL	.97	NIL	30	9/30 .17	.14	12/31	NIL	NIL	YES				
	612 Boardwalk Pipeline	BWP	11.21	4	4	3	.80	20- 35 (80-210%)	16.5	3.6	.68	.40	91	12/31 ♦d.07	.15	12/31	.10	.10	YES				
	353 Bob Evans Farms	(ND) BOBE	39.44	3	4	.95	45- 70 (15-75%)	16.8	3.4	2.35	1.36	11	10/31 .41	.36	12/31	▲.34	.31	YES					
2454	706 Boeing	BA	118.88	3	1	3	1.05	150- 180 (25-50%)	14.5	3.7	8.21	4.36	29	12/31 1.51	2.02	3/31 ▲1.09	.91	.91	YES				
	1107 Boise Cascade	BCC	19.02	3	3	3	1.30	35- 50 (85-165%)	9.1	NIL	2.09	NIL	27	9/30 .56	.82	12/31	NIL	NIL	YES				
1426	707 Bombardier Inc. 'B'	(ISE) BBDB.TO	0.80b	5	4	1	.95	1- 3 (25-275%)	11.4	NIL	.07	NIL	29	9/30 NIL(b)	.07(b)	12/31	NIL	.029	YES				
	382 Booz Allen Hamilton	BAH	25.68	2	3	1	1.00	25- 35 (N-35%)	15.0	2.3	1.71	.60	38	12/31 .41	.35	3/31 ▲.15	.13	.13	YES				
	978 BorgWarner	BWA	29.61	▲3	3	3	1.35	65- 95 (120-220%)	9.1	1.8	3.24	.52	59	9/30 .73	.79	12/31	.13	.13	YES				
	1964 Boston Beer 'A'	SAM	180.29	3	3	4	.95	215- 325 (20-80%)	23.4	NIL	7.72	NIL	8	9/30 2.85	2.79	12/31	NIL	NIL	YES				
	1516 Boston Properties	BXP	108.97	3	3	3	.90	120- 180 (10-65%)	42.2	2.6	2.58	2.80	28	12/31 ♦.90	1.14	3/31	.65	.65	YES				
	178 Boston Scientific	BSX	16.87	2	3	2	1.00	25- 40 (50-135%)	26.0	NIL	.65	NIL	3	12/31 ♦.16	.15	12/31	NIL	NIL	YES				
2241	1904 Boulder Brands	BBDB	SEE FINAL SUPPLEMENT - PAGE 2241										12/31	♦.16	.15	12/31	NIL	NIL	NIL	YES			
	2354 Boyd Gaming	BYD	15.04	2	5	1	1.75	20- 35 (35-135%)	16.5	NIL	.91	NIL	48	9/30 .27	NIL	12/31	NIL	NIL	YES				
	1742 Brady Corp.	BRC	21.39	3	3	3	1.10	20- 35 (N-65%)	16.1	3.8	1.33	.81	59	10/31 .37	.36	3/31	.203	.20	YES				
	1997 Bridgepoint Education	BPI	6.42	4	4	3	1.30	13- 20 (100-210%)	29.2	NIL	.22	NIL	77	9/30 .13	.14	12/31	NIL	NIL	YES				
2242	1706 Briggs & Stratton	BGG	20.24	3	3	5	1.10	25- 35 (25-75%)	12.7	2.7	1.59	.54	37	12/31 .34	.26	3/31	.135	.125	YES				
	354 Brinker Int'l	EAT	46.53	3	3	4	.90	60- 85 (30-85%)	12.9	2.8	3.60	1.28	11	12/31 .78	.71	3/31	.32	.28	YES				
	383 Brink's (The) Co.	BCO	29.26	▼4	3	3	1.25	35- 50 (20-70%)	28.7	1.4	1.02	.40	38	12/31 ♦.14	d.15	3/31	.10	.10	YES				
	1614 Bristol-Myers Squibb	BMJ	61.02	3	1	2	.80	70- 90 (15-45%)	32.1	2.5	1.90	1.52	35	12/31 d.08	.01	3/31	▲.38	.37	YES				
★ ★	306 Bristow Group	BRS	14.75	5	3	3	1.20	35- 55 (135-275%)	6.6	1.9	2.23	.28	33	12/31 ♦.67	.03	3/31	▼.07	.32	YES				
1990	Brit. Amer Tobac. ADR	(ASE) BTI	108.93	3	2	4	.90	120- 165 (10-50%)	15.9	4.2	6.85	4.55	14	6/30 3.15(p)	3.47(p)	12/31	1.493	1.54	YES				
2653	944 Broadcom Corp. 'A'	BRCM	SEE FINAL SUPPLEMENT - PAGE 2653										12/31	▲.44	.35	3/31	.045	.035	YES				
847	1356 Broadcom Ltd.	(ND) AVGO	119.71	1	3	2	1.20	100- 150 (N-25%)	20.3	1.5	5.90	1.76	45	10/31 1.49	1.67	12/31	▲.44	.35	YES				
	1399 Brocade Commun.	(ND) BRCO	7.77	3	3	3	1.15	11- 17 (40-120%)	9.1	2.4	.85	.19	64	10/31 .21	.19	3/31	.041	.035	YES				
★ ★	798 Brookdale Senior Living	BKD	12.63	4	4	3	1.60	25- 45 (100-255%)	NMF	NIL	d1.21	NIL	31	12/31 ♦d.94	d.58	12/31	NIL	NIL	YES				
	384 Brookfield Asset Mgmt.	BAM	27.56	3	3	3	1.05	40- 60 (45-120%)	11.5	1.7	2.39	.48	38	9/30 .26	.73	12/31	.12	.107	YES				
	1743 Brookfield Infrastruc.	BIP	35.49	3	2	4	.90	55- 70 (55-95%)	15.9	6.0	2.23	2.12	58	12/31 .04	.32	12/31	.53	.48	YES				
	1707 Brooks Automation	(ND) BRKS	8.48	4	3	3	1.20	10- 15 (20-75%)	28.3	4.7	.30	.40	37	12/31 ♦.02	.05	3/31	♦.10	.10	YES				
	2541 Brown & Brown	BRO	31.56	3	2	4	.95	40- 55 (25-75%)	17.9	1.6	1.76	.49	57	12/31 .41	.17	3/31	.123	.11	YES				
	1965 Brown-Forman 'B'	BFB	95.86	2	1	3	.90	125- 150 (30-55%)	25.8	1.4	3.71	1.38	8	10/31 .97	.97	6/30	.34	.315	YES				
	116 Bruker Corp.	(ND) BRKR	21.33	2	3	2	1.35	20- 35 (N-65%)	35.0	NIL	.61	NIL	55	9/30 .07	.03	12/31	NIL	NIL	YES				
	2303 Brunswick Corp.	BC	38.66	2	3	2	1.55	65- 95 (70-145%)	11.6	1.6	3.32	.60	21	12/31 .52	.33	12/31	▲.15	.125	YES				
	613 Buckeye Partners L.P.	BPL	51.55	4	3	3	.90	95- 140 (85-170%)	14.6	9.4	3.53	4.83	91	9/30 .78	.89	12/31	▲1.175	1.125	YES				
	2206 Buckle (The), Inc																						

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PAGE NUMBERS		RANKS										Industry Rank										Do Options Trade?	
Bold type refers to Ratings and Reports; italics to Selection & Opinion		Recent Price		Safety		Technical		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS					
NAME OF STOCK		Ticker Symbol	Timeliness	Beta														Qtr. Ended	Earnings Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago
625	1598 CVR Partners, LP	UAN	5.30	5	3	3	1.15	12-	19	(125-260%)	6.0	14.2	.89	.75	92	9/30	d.07	.17	12/31	▼NIL	.27	YES	
	967 CVS Health	CVS	90.51	2	1	2	.85	135-	165	(50-80%)	15.9	1.9	5.71	1.70	15	12/31	▲1.53	1.21	3/31	▲.425	.35	YES	
	2168 Cabela's Inc.	CAB	40.34	3	3	3	1.05	60-	90	(50-125%)	12.8	NIL	3.15	NIL	66	9/30	.62	.75	12/31	NIL	NIL	YES	
	1018 Cablevision Sys. 'A'	CVC	31.62	-	4	-	1.20	18-	30	(N- N%)	35.5	NIL	.89	NIL	69	9/30	.08	.26	12/31	▼NIL	.15	YES	
	2443 Cabot Corp.	CBT	40.58	3	3	4	1.35	40-	60	(N- 50%)	12.5	2.2	3.25	.88	50	12/31	.51	.80	3/31	.22	.22	YES	
1648	560 Cabot Microelectr's	(NDQ) CCMP	37.77	3	3	3	1.10	65-	100	(70-165%)	14.8	1.9	2.55	.72	56	12/31	.56	.80	6/30	.18	NIL	YES	
	522 Cabot Oil & Gas 'A'	COG	19.59	4	3	5	1.10	40-	60	(105-205%)	NMF	0.4	d.19	.08	95	9/30	d.04	.24	3/31	.02	.02	YES	
	2581 Cadence Design Sys.	(NDQ) CDNS	19.82	2	3	2	1.10	25-	35	(25-75%)	16.8	NIL	1.18	NIL	26	12/31	▲.31	.27	12/31	NIL	NIL	YES	
	1906 Cal-Maine Foods	(NDQ) CALM	48.56	2	3	3	1.00	45-	65	(N- 35%)	6.6	6.2	7.40	3.00	10	11/30	2.26	.76	3/31	▼.751	.252	YES	
	585 CalAmp Corp.	(NDQ) CAMP	16.27	3	4	2	1.05	20-	30	(25-85%)	33.9	NIL	.48	NIL	43	11/30	.11	.11	12/31	NIL	NIL	YES	
	1124 CalAtlantic Group	(NDQ) CAA	28.75	3	4	3	1.50	50-	80	(75-165%)	9.2	0.6	3.11	.16	47	9/30	.59	.70	12/31	▲.04	NIL	YES	
	1907 Calavo Growers	(NDQ) CVGW	49.43	3	3	3	.75	45-	70	(N- 40%)	24.7	1.6	2.00	.80	10	10/31	.28	.38	12/31	▲.80	.75	YES	
	2154 Caleres Inc.	CAL	24.59	3	3	4	1.15	40-	55	(65-125%)	11.0	1.1	2.23	.28	40	10/31	.80	.75	3/31	.07	.07	YES	
	416 Calgon Carbon	CCC	16.83	3	3	4	1.00	20-	30	(20-80%)	18.5	1.2	.91	.20	62	9/30	.23	.25	12/31	.05	NIL	YES	
	1784 California Water	CWT	24.55	3	3	4	.75	30-	45	(20-85%)	19.8	2.8	1.24	.69	13	9/30	.52	.70	3/31	▲.173	.168	YES	
★ ★	2304 Callaway Golf	ELY	8.27	3	3	2	1.05	13-	19	(55-100%)	33.1	0.5	.25	.04	21	12/31	▲d.33	d.54	3/31	▲.01	.01	YES	
	1219 Calpine Corp.	CPN	14.58	4	3	4	1.00	25-	35	(70-140%)	NMF	NIL	.02	NIL	85	9/30	.76	1.52	12/31	NIL	NIL	YES	
	2444 Cambrex Corp.	CBM	37.55	▼	2	4	.95	45-	75	(20-100%)	16.1	NIL	2.33	NIL	50	12/31	▲.54	.87	12/31	NIL	NIL	YES	
	1517 Camden Property Trust	CPT	72.65	3	3	3	.75	85-	130	(15-80%)	38.9	4.1	1.87	3.00	28	12/31	.67	.43	6/30	▲.75	.70	YES	
	1585 Cameco Corp.	(TSX) CCO.TO	15.07	4	3	3	1.25	20-	35	(35-100%)	10.8	2.7	1.40	.40	97	12/31	▲.38	.52	6/30	▲.10	.10	YES	
	2415 Cameron Int'l Corp.	CAM	62.12	-	3	-	1.30	60-	90	(N- 45%)	22.8	NIL	2.73	NIL	94	12/31	1.08	1.28	12/31	NIL	NIL	YES	
	1908 Campbell Soup	CPB	57.21	2	2	4	.65	50-	70	(N- 20%)	21.2	2.2	2.70	1.25	10	10/31	.95	.78	3/31	.312	.312	YES	
	2509 Can. Imperial Bank	(TSX) CM.TO	86.17b	3	1	3	.70	105-	125	(20-45%)	9.1	5.5	9.50	4.72	54	10/31	1.93(b)	1.98(b)	3/31	▲1.15(b)	1.03(b)	YES	
	341 Can. National Railway	CNI	55.12	3	2	4	1.00	65-	85	(20-55%)	16.7	1.7	3.30	.95	70	12/31	.85	.89	12/31	.238	.215	YES	
	2400 Can. Natural Res.	(TSX) CNQ.TO	28.12	5	3	3	1.30	35-	50	(25-80%)	NMF	3.3	d.63	.94	96	9/30	.10	.89	12/31	.23	.225	YES	
	342 Can. Pacific Railway	CP	124.10	3	3	4	1.15	165-	250	(35-100%)	16.0	0.9	7.76	1.06	70	12/31	1.96	2.26	3/31	.266	.266	YES	
	2136 Canadian Tire Corp. 'A'	(TSX) CTCA.TO	113.79	3	1	4	.70	155-	185	(35-65%)	13.9	2.1	8.16	2.35	71	9/30	2.29	2.17	12/31	.525	.50	YES	
	1981 Canon Inc. ADRI(g)	CAJ	27.75	3	2	3	.80	45-	65	(60-135%)	13.0	4.5	2.14	1.26	78	12/31	.52	.51	12/31	NIL	NIL	YES	
	206 Cantel Medical Corp.	CMN	58.00	1	3	3	1.05	55-	80	(N- 40%)	38.4	0.2	1.51	.13	4	10/31	.34	.27	3/31	▲.06	.05	YES	
	2543 Capital One Fin'l	COF	62.42	3	3	3	1.10	80-	120	(30-90%)	8.3	2.6	7.51	1.60	57	12/31	1.56	1.68	3/31	▲.40	.30	YES	
2242	1503 Capitol Fed. Fin'l	(NDQ) CFFN	12.10	3	2	2	.65	13-	18	(5-50%)	20.2	2.8	.60	.34	39	12/31	.16	.15	3/31	.085	.085	YES	
	2416 CARBO Ceramics	CRR	15.26	4	4	4	1.45	25-	40	(65-160%)	NMF	NIL	d.235	NIL	94	12/31	d.60	.70	3/31	▼NIL	.33	YES	
	207 Cardinal Health	CAH	76.55	2	1	2	.85	125-	150	(65-95%)	16.8	2.3	4.55	1.75	4	12/31	.98	.86	6/30	.387	.343	YES	
	1998 Career Education	(NDQ) CECO	2.41	-	5	-	1.25	5-	9	(105-275%)	NMF	NIL	d.28	NIL	77	9/30	d.17	d.60	12/31	NIL	NIL	YES	
	1744 Carlisle Cos.	CSL	85.83	2	3	4	1.15	90-	130	(5-50%)	16.5	1.4	5.20	1.20	58	12/31	▲1.24	.81	3/31	.30	.25	YES	
1427	2123 CarMax, Inc.	KMX	42.86	3	3	3	1.15	75-	110	(75-155%)	14.4	NIL	2.97	NIL	18	11/30	.63	.60	12/31	NIL	NIL	YES	
	2305 Carmike Cinemas	(NDQ) CKEC	19.89	3	4	4	1.05	30-	50	(50-100%)	46.3	NIL	.43	NIL	21	9/30	d.26	d.29	12/31	NIL	NIL	YES	
	2306 Carnival Corp.	CCL	42.97	2	3	2	1.00	55-	80	(30-85%)	12.6	2.8	3.40	1.20	21	11/30	.50	.27	3/31	.30	.25	YES	
	742 Carpenter Technology	CRS	26.89	5	3	3	1.40	50-	70	(65-160%)	13.9	2.7	1.93	.72	93	12/31	▲.23	.45	3/31	.18	.18	YES	
	1826 Carriage Services	CSV	20.66	2	3	1	.85	25-	40	(20-95%)	14.2	0.5	1.46	.10	34	9/30	.24	.27	3/31	.025	.025	YES	
2453	2102 Carter's Inc.	CRI	85.81	2	3	3	.75	120-	175	(40-105%)	28.2	1.0	3.04	.88	60	9/30	1.51	1.23	12/31	.22	.19	YES	
	1944 Casey's Gen'l Stores	(NDQ) CASH	112.32	1	3	3	.75	95-	135	(N- 20%)	19.4	0.8	5.78	.88	24	10/31	2.00	1.28	3/31	.22	.20	YES	
	2544 Cash Amer. Int'l	CSH	29.22	-	3	-	NMF	30-	45	(5-55%)	23.4	1.1	1.25	.32	57	12/31	.49	.29	3/31	▲.08	.05	YES	
	159 Caterpillar Inc.	CAT	63.93	4	2	3	1.25	85-	115	(35-80%)	17.6	4.8	3.64	3.08	83	12/31	.74	1.35	3/31	.77	.70	YES	
	2207 Cato Corp.	CATO	33.29	2	3	3	.95	40-	60	(20-80%)	13.5	3.6	2.46	1.20	75	10/31	.30	.22	3/31	.30	.60	YES	
1426	1358 Cavium Inc.	(NDQ) CAVM	47.12	3	3	1	1.50	95-	145	(100-210%)	31.2	NIL	1.51	NIL	45	12/31	.28	.42	12/31	NIL	NIL	YES	
	2307 Cedar Fair L.P.	FUN	49.81	3	3	2	.90	65-	95	(30-90%)	14.6	6.6	3.41	3.30	21	9/30	2.92	2.90	12/31	▲.825	.75	YES	
	2445 Celanese Corp.	CE	57.54	3	3	2	1.50	80-	120	(40-110%)	9.3	2.1	6.20	1.20	50	12/31	1.25	1.28	3/31	▲.30	.25	YES	
	1328 Celestica Inc.	CLS	9.14	3	3	3	1.15	12-	20	(30-120%)	17.2	NIL	.53	NIL	63	12/31	.08	d.03	12/31	NIL	NIL	YES	
	1615 Celgene Corp.	(NDQ) CELG	100.50	2	3	2	1.10	95-	145	(N- 45%)	39.7	NIL	2.53	NIL	35	12/31	1.18	.74	12/31	NIL	NIL	YES	
★ ★	1108 CEMEX ADS	CX	4.43	4	4	2	1.65	10-	17	(125-285%)	NMF	NIL	.04	NIL	27	12/31	▲.07	d.12	12/31	NIL	NIL	YES	
	503 Cenovus Energy	(TSX) CVE.TO	14.76	▲	3	3	1.05	30-	40	(105-170%)	NMF	1.4	d.70	.20	87	9/30	d.03	.47	12/31	.16	.266	YES	
	799 Centene Corp.	CNC	55.51	2	3	2	1.00	70-	105	(25-90%)	16.5	NIL	3.36	NIL	31	12/31	▲.95	.87	12/31	NIL	NIL	YES	
	907 CenterPoint Energy	CNP	18.55	4	3	4	.85	19-	30	(N- 60%)	16.1	5.6	1.15	1.03	19	9/30	.34	.33	3/31	▲.258	.248	YES	
	428 Central Europe/Russia	CEE	15.35	-	4	2	1.10	25-	40	(65-160%)	NMF	3.2	NMF	.49	-	10/31	21.37(q)	27.54(q)	3/31	.486	.975	YES	
	1188 Central Garden & Pet	(NDQ) CENT	14.15	2	3	3	.85	15-	25	(5-75%)	16.6	NIL	.85	NIL	5	12/31	d.18	d.12	12/31	NIL	NIL	YES	
	1030 CenturyLink Inc.	CTL	24.81	4	3	4																	

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		Ticker	Symbol	Price	Time	Stop	Beta	Target Price Range and % appreciation potential	Current P/E Ratio	Yield 12 mos.	Earnings 9-30-16	Div'd 12 mos.	Qtr. Ended	Earnings Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	Yes/No			
NAME OF STOCK																						
2356	Churchill Downs	(ND)	CHDN	125.94	2	3	2	.80	140- 210	(10- 65%)	23.1	1.1	5.45	1.40	48	9/30	.24	.20	3/31	▲1.15	1.00	YES
945	Ciena Corp.		CIEI	17.79	3	5	3	1.45	30- 55	(70-210%)	23.7	NIL	.75	NIL	81	10/31	d.10	d.29	12/31	NIL	NIL	YES
800	Cigna Corp.		CI	128.18	-	2	-	.90	155- 210	(20- 65%)	14.1	NIL	9.06	.04	31	12/31	◆1.87	1.69	12/31	NIL	NIL	YES
524	Cimarex Energy		XEC	81.95	4	3	4	1.50	80- 115	(N- 40%)	NMF	0.8	d.75	.64	95	9/30	d.15	1.53	3/31	.16	.16	YES
2374	Cimpress N.V.	(ND)	CMPR	78.34	3	3	3	1.15	70- 105	(N- 35%)	24.9	NIL	3.15	NIL	73	12/31	1.80	2.12	12/31	NIL	NIL	YES
1031	Cincinnati Bell		CBB	3.12	3	4	3	1.15	4- 6	(30- 90%)	34.7	NIL	.09	NIL	76	9/30	.03	d.03	12/31	NIL	NIL	YES
764	Cincinnati Financial	(ND)	CINF	61.24	2	2	3	.90	60- 80	(N- 30%)	20.1	3.1	3.04	1.92	6	12/31	◆1.10	.89	6/30	▲.48	.46	YES
2308	Cinemark Hldgs.		CNK	27.26	3	3	3	.95	50- 80	(85-195%)	12.9	3.7	2.12	1.00	21	9/30	.40	.33	12/31	.25	.25	YES
387	Cintas Corp.	(ND)	CTAS	83.49	1	2	2	1.00	85- 115	(N- 40%)	20.8	1.3	4.02	1.05	38	11/30	1.03	.86	12/31	▲1.05	.85	YES
2453	1359 Cirrus Logic	(ND)	CRUS	32.23	3	3	3	1.20	55- 75	(70-135%)	12.5	NIL	2.57	NIL	45	12/31	.82	.97	12/31	NIL	NIL	YES
★	946 Cisco Systems	(ND)	CSCO	22.65	3	2	3	1.10	30- 40	(30- 75%)	10.1	4.6	2.25	1.04	81	10/31	.59	.54	6/30	▲.26	.21	YES
625	2210 Citi Trends	(ND)	CTRN	16.20	3	4	3	.70	25- 45	(55-180%)	13.6	1.5	1.19	.24	75	10/31	.04	d.08	3/31	◆.06	NIL	YES
2510	Citigroup Inc.		C	37.51	3	3	2	1.50	70- 105	(85-180%)	7.2	0.5	5.21	.20	54	12/31	1.06	.06	3/31	.05	.01	YES
2511	Citizens Fin'l Group		CFG	19.55	-	3	-	NMF	30- 40	(55-105%)	10.9	2.0	1.80	.40	54	12/31	.42	.36	3/31	.10	.10	YES
459	2582 Citrix Sys.	(ND)	CTXS	62.33	3	3	1	1.25	75- 115	(20- 85%)	12.8	NIL	4.86	NIL	26	12/31	1.66	1.10	12/31	NIL	NIL	YES
1177	CLARCOR Inc.		CLC	46.19	4	3	4	1.05	75- 110	(60-140%)	16.2	1.9	2.86	.88	51	11/30	.74	.86	3/31	.22	.20	YES
602	Clean Energy Fuels	(ND)	CLNE	2.25	4	5	1	1.75	7- 13	(210-480%)	NMF	NIL	d.78	NIL	74	9/30	d.25	d.32	12/31	NIL	NIL	YES
417	Clean Harbors		CLH	42.87	3	3	4	1.10	45- 65	(5- 50%)	33.5	NIL	1.28	NIL	62	9/30	.69	.45	12/31	NIL	NIL	YES
★	2389 Clear Channel Outdoor		CCO	3.68	-	4	-	1.05	8- 14	(115-280%)	NMF	NIL	d.06	NIL	7	9/30	d.06	d.02	12/31	NIL	NIL	YES
908	Cleco Corp.		CNL	53.40	-	1	-	.70	40- 50	(N- 1%)	23.6	3.0	2.26	1.60	19	9/30	.90	1.17	3/31	.40	.40	YES
743	Cliffs Natural Res.		CLF	1.78	5	5	3	1.70	8- 15	(350-745%)	NMF	NIL	d.44	NIL	93	12/31	d.14	1.08	12/31	NIL	.15	YES
1190	Clorox Co.		CLX	128.68	1	2	3	.65	105- 140	(N- 10%)	26.1	2.4	4.93	3.14	5	12/31	◆1.14	.97	6/30	◆.77	.74	YES
2309	ClubCorp Hldgs.		MYCC	9.80	3	3	2	.95	12- 18	(20- 85%)	24.5	5.3	.40	.52	21	9/30	.02	.05	3/31	.13	.13	YES
2169	Coach Inc.		COH	34.05	3	3	4	1.10	45- 65	(30- 90%)	17.4	4.0	1.96	1.35	66	12/31	.68	.72	12/31	.338	.338	YES
★	1966 Coca-Cola		KO	43.30	3	1	3	.70	45- 55	(5- 25%)	22.4	3.2	1.93	1.40	8	12/31	◆.38	.43	12/31	.66	.61	YES
1967	Coca-Cola Bottling	(ND)	COKE	163.93	1	3	2	.70	160- 250	(N- 55%)	27.9	0.6	5.88	1.00	8	9/30	1.39	1.31	3/31	.25	.25	YES
1968	Coca-Cola Enterprises		CCE	47.62	-	3	-	.95	50- 70	(5- 45%)	18.8	2.5	2.53	1.20	8	9/30	.72	.96	12/31	.28	.25	YES
NAME CHANGED TO COGECO COMMUN.																						
1020	Cogeco Commun.	(TSX)	CCA.TO	62.00	3	3	5	.60	65- 95	(5- 55%)	10.8	2.6	5.75	1.60	69	11/30	1.24	1.15	3/31	.39	.35	YES
118	Cognex Corp.	(ND)	CGNX	30.91	3	3	5	1.30	40- 60	(30- 95%)	27.6	0.9	1.12	.28	55	9/30	.29	.56	12/31	.07	NIL	YES
2606	Cognizant Technology	(ND)	CTSH	52.33	2	2	3	1.05	75- 100	(45- 90%)	15.8	NIL	3.31	NIL	1	12/31	◆.80	.67	12/31	NIL	NIL	YES
119	Coherent, Inc.	(ND)	COHR	78.04	2	3	3	1.30	75- 115	(N- 45%)	20.0	NIL	3.90	NIL	55	12/31	.84	.69	12/31	NIL	NIL	YES
1746	Colfax Corp.		CFX	24.83	4	3	4	1.25	35- 55	(40-120%)	16.6	NIL	1.50	NIL	58	12/31	◆.51	.72	12/31	NIL	NIL	YES
1191	Colgate-Palmolive		CL	65.88	3	1	4	.75	85- 105	(30- 60%)	41.2	2.4	1.60	1.61	5	12/31	d.51	.68	3/31	.38	.36	YES
2103	Columbia Sportswear	(ND)	COLM	46.92	2	3	5	1.10	45- 65	(N- 40%)	18.5	1.4	2.54	.68	60	9/30	1.28	.93	12/31	▲.17	.15	YES
1708	Columbus McKinnon		CMCO	13.64	4	3	3	1.25	25- 40	(85-195%)	7.9	1.2	1.73	.16	37	12/31	.32	.39	3/31	.04	.04	YES
1021	Comcast Corp.	(ND)	CMCSA	58.21	3	2	3	1.05	55- 80	(N- 35%)	32.0	1.9	1.82	1.10	69	12/31	.79	.77	6/30	▲.275	.25	YES
779	Comerica Inc.		CMA	32.45	4	3	3	1.20	55- 80	(70-145%)	10.4	2.6	3.11	.84	49	12/31	.71	.80	6/30	.21	.20	YES
780	Commerce Bancshs.	(ND)	CBSH	41.09	3	1	3	.90	45- 55	(10- 35%)	15.6	2.2	2.63	.90	49	12/31	.63	.59	12/31	.214	.204	YES
744	Commercial Metals		CMC	13.09	4	3	3	1.40	20- 30	(55-130%)	13.1	3.7	1.00	.48	93	11/30	.22	.32	3/31	.12	.12	YES
1427	980 Commercial Vehicle	(ND)	CVGI	2.53	-	5	-	1.75	5- 9	(100-255%)	8.7	NIL	.29	NIL	59	9/30	.10	.04	12/31	NIL	NIL	YES
947	CommScope Holding	(ND)	COMM	20.21	3	3	3	1.20	40- 60	(100-195%)	9.8	NIL	2.06	NIL	81	9/30	.53	.62	12/31	NIL	NIL	YES
801	Community Health		CYH	18.43	4	3	3	1.40	55- 80	(200-335%)	4.9	NIL	3.80	NIL	31	9/30	.56	1.00	12/31	NIL	NIL	YES
1599	Compass Minerals Int'l		CMP	72.09	4	3	4	.85	105- 160	(45-120%)	15.3	4.0	4.72	2.88	92	12/31	◆1.72	2.38	3/31	▲.695	.66	YES
629	824 Computer Prog. & Sys.	(ND)	CPSI	56.91	3	3	5	.85	55- 85	(N- 50%)	26.7	4.5	2.13	2.56	16	12/31	.49	.60	3/31	.64	.64	YES
★	2607 Computer Sciences		CSC	30.80	-	3	-	NMF	40- 55	(30- 80%)	11.0	1.9	2.81	.57	1	12/31	◆.71	1.18	3/31	.14	.23	YES
948	Comtech Telecom.	(ND)	CMTL	18.44	5	3	3	1.10	30- 45	(65-145%)	12.4	6.5	1.49	1.20	81	10/31	.09	.32	3/31	.30	.30	YES
458	1909 ConAgra Foods		CAG	39.70	2	1	2	.75	45- 55	(15- 40%)	16.2	2.5	2.45	1.00	10	11/30	.71	.61	3/31	.25	.25	YES
525	Concho Resources		CXO	85.58	4	3	3	1.50	120- 175	(40-105%)	38.4	NIL	2.23	NIL	95	9/30	.33	1.09	12/31	NIL	NIL	YES
458	179 CONMED Corp.	(ND)	CNMD	36.56	3	3	3	1.00	45- 65	(25- 80%)	21.5	2.2	1.70	.80	3	12/31	.52	.53	3/31	.20	.20	YES
2170	Conn's, Inc.	(ND)	CONN	13.12	4	5	3	1.55	40- 70	(205-435%)	7.1	NIL	1.86	NIL	66	10/31	.02	d.08	12/31	NIL	NIL	YES
1785	Conn. Water Services	(ND)	CTWS	42.17	▲2	3	4	.60	35- 50	(N- 20%)	20.5	2.6	2.06	1.09	13	9/30	.79	.76	3/31	.268	.258	YES
2655	2401 ConocoPhillips		COP	33.58	4	3	3	1.35	55- 75	(65-125%)	NMF	3.0	d2.95	1.00	96	12/31	◆4.90	.33	3/31	▼.25	.73	YES
2663	1586 CONSOL Energy		CNX	7.53	-	3	-	1.45	20- 30	(165-300%)	NMF	0.5	d.06	.04	97	12/31	d.12	.32	3/31	.01	.063	YES
1032	Consol. Commun.	(ND)	CNSL	18.87	3	3	4	.80	25- 40	(30-110%)	25.5	8.2	.74	1.55	76	9/30	.05	.19	3/31	.387	.387	YES
142	Consol. Edison		ED	73.61	3	1																

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AGE NUMBERS		RANKS										Industry Rank							Do Options Trade?					
NAME OF STOCK		Recent Price		Safety		Technical		3-5 year		Current		% Est'd		Est'd		(f) Est'd		LATEST RESULTS						
		Ticker	Symbol	Timeliness		Beta	Target Price	Range	and % appreciation	P/E	Ratio	Yield	next 12 mos.	12 mos.	9-30-16	next 12 mos.	Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago		
2155	Cross, Inc.	(NDQ)	CROX	9.21	4	4	1.00	15- 25	(65-170%)	28.8	NIL	.32	NIL	.40	9/30	d.26	.30	12/31	NIL	NIL	YES			
1639	Cross Country Health.	(NDQ)	CCRN	11.43	2	4	1.25	19- 30	(65-160%)	19.7	NIL	.58	NIL	17	9/30	.16	d.24	12/31	NIL	NIL	YES			
586	Crown Castle Int'l		CCI	82.20	▲1	3	.85	105- 155	(30- 90%)	55.2	4.3	1.49	3.54	43	12/31	.39	.41	12/31	▲.885	.82	YES			
1178	Crown Holdings		CKK	44.79	2	3	.95	60- 90	(35-100%)	13.8	NIL	3.25	NIL	51	12/31	◆.70	.48	12/31	NIL	NIL	YES			
180	CryoLife Inc.		CRY	9.30	2	3	2.10	16- 25	(70-175%)	84.5	1.3	.11	.12	3	9/30	.07	.08	12/31	.03	.03	YES			
457	2624 Ctrip.com Int'l ADY	(NDQ)	CTRP	36.57	1	3	1.15	35- 50	(N- 30%)	76.2	NIL	.48	NIL	30	9/30	1.05	.11	12/31	NIL	NIL	YES			
1329	Cubic Corp.		CUB	30.80	3	3	2.00	75- 110	(145-255%)	12.8	0.9	2.40	29	63	12/31	◆d.20	.19	12/31	NIL	NIL	YES			
2512	Cullen/Frost Bankers		CFR	47.58	4	1	.95	80- 95	(70-100%)	11.2	4.6	4.25	2.18	54	12/31	.90	1.11	3/31	.53	.51	YES			
1148	Culp Inc.		CFI	23.41	2	3	.95	35- 50	(50-115%)	12.7	1.2	1.85	28	12	10/31	.41	.33	3/31	▲.07	.06	YES			
160	Cummins Inc.		CFI	99.70	4	3	1.30	135- 205	(35-105%)	12.4	3.9	8.07	3.90	83	12/31	◆2.02	2.56	3/31	◆.975	.78	YES			
1709	Curtiss-Wright		CW	64.85	2	3	1.10	60- 90	(N- 40%)	15.6	0.8	4.17	.52	37	9/30	.95	.90	12/31	.13	.13	YES			
211	Cutera, Inc.	(NDQ)	CUTR	11.05	3	3	.85	20- 30	(80-170%)	NMF	NIL	.05	NIL	4	12/31	◆1.15	d.11	12/31	NIL	NIL	YES			
1361	Cypress Semic.	(NDQ)	CY	6.61	▼4	3	1.45	17- 25	(155-280%)	11.4	6.7	.58	.44	45	12/31	.13	.13	3/31	.11	.11	YES			
1037	Cytec Inds.		CYT					SEE FINAL SUPPLEMENT - PAGE 1037																
614	DCP Midstream Partners		DPM	16.81	4	3	3	1.15	40- 60	(140-255%)	8.2	18.6	2.06	3.12	91	9/30	.35	.77	12/31	.78	.77	YES		
1519	DDR Corp.		DDR	16.24	3	3	1.00	25- 35	(55-115%)	NMF	4.7	.09	.77	28	9/30	.15	.01	6/30	▲.19	.173	YES			
1207	DNP Select Inc. Fund		DNP	9.36	- 2	3	.60	9- 14	(N- 50%)	NMF	4.7	NMF	.44	- 4	4/30	9.71(q)	9.76(q)	12/31	NIL	NIL	YES			
587	DSP Group	(NDQ)	DSPG	8.23	3	3	.85	14- 20	(70-145%)	82.3	NIL	.10	NIL	43	12/31	NIL	.12	12/31	NIL	NIL	YES			
2608	DST Systems		DST	99.46	3	2	2.00	110- 150	(10- 50%)	15.7	1.3	6.32	1.32	1	12/31	1.67	1.73	3/31	▲.33	.30	YES			
2211	DSW Inc.		DSW	23.44	4	3	.90	25- 40	(5- 70%)	15.9	3.4	1.47	80	75	10/31	.44	.55	12/31	.20	.188	YES			
909	DTE Energy		DTE	86.85	2	2	.75	70- 95	(N- 10%)	18.1	3.5	4.79	3.00	19	12/31	◆.84	1.68	6/30	◆.73	.69	YES			
2005	DTS, Inc.	(NDQ)	DTSI	21.50	4	4	1.25	40- 65	(85-200%)	50.0	NIL	.43	NIL	46	9/30	d.16	.22	12/31	NIL	NIL	YES			
102	Daimler AG	(FNV)	DAIF	66.03	3	3	1.45	100- 150	(50-125%)	7.5	6.8	8.77	4.50	67	12/31	◆2.07	2.03	6/30	▲3.676	2.666				
626	2006 Daktronics Inc.	(NDQ)	DAKT	7.49	4	3	1.25	18- 30	(140-300%)	16.3	5.9	.46	.44	46	10/31	.07	.18	12/31	.10	.10	YES			
982	Dana Holding Corp.		DAN	11.73	▼5	3	1.65	25- 40	(115-240%)	6.3	2.0	1.87	.24	59	9/30	.32	.53	12/31	.06	.05	YES			
1748	Danaher Corp.		DHR	85.19	1	2	2.05	125- 170	(45-100%)	18.0	0.6	4.73	.54	58	12/31	1.27	.92	3/31	.135	.10	YES			
359	Darden Restaurants		DRI	58.48	- 3	-	.90	45- 70	(N- 20%)	16.7	3.4	3.51	2.00	11	11/30	.54	.28	9/30	◆.50	.55	YES			
418	Darling Ingredients		DAR	8.25	4	3	1.15	15- 25	(80-205%)	14.2	NIL	.58	NIL	62	9/30	d.01	.09	12/31	NIL	NIL	YES			
802	DaVita HealthCare		DVA	62.25	2	2	.90	95- 130	(55-110%)	15.9	NIL	3.91	NIL	31	9/30	1.00	.90	12/31	NIL	NIL	YES			
1910	Dean Foods		DF	19.02	3	4	1.05	20- 35	(5- 85%)	14.3	1.5	1.33	.28	10	9/30	.30	d.03	12/31	.07	.07	YES			
2156	Deckers Outdoor		DECK	49.57	3	3	4.05	95- 140	(90-180%)	10.0	NIL	4.97	NIL	40	12/31	◆4.78	4.50	12/31	NIL	NIL	YES			
161	Deere & Co.		DE	78.08	4	1	4.05	100- 120	(30- 55%)	18.4	3.1	4.25	2.40	83	10/31	1.08	1.84	3/31	.60	.60	YES			
983	Delphi Automotive PLC		DLPH	57.64	▼3	3	1.20	80- 120	(40-110%)	9.7	2.0	5.92	1.16	59	12/31	◆1.39	1.16	3/31	▲.29	.25	YES			
308	Delta Air Lines		DAL	41.98	2	3	1.20	55- 85	(30-100%)	6.5	1.6	6.46	.68	33	12/31	1.18	.78	3/31	◆.135	.09	YES			
2375	Deluxe Corp.		DLX	52.06	3	3	1.25	75- 110	(45-110%)	11.4	2.3	4.55	1.20	73	12/31	1.20	1.16	3/31	.30	.30	YES			
★	1813 Demandware		DWRE	30.76	3	3	1.25	80- 110	(160-260%)	NMF	NIL	d1.36	NIL	22	12/31	◆.01	d.11	12/31	NIL	NIL	YES			
2403	Denbury Resources		DNR	1.17	5	5	1.85	4- 8	(240-585%)	NMF	NIL	d.30	NIL	96	9/30	.18	.26	12/31	▼NIL	.063	YES			
181	Dentsply Int'l	(NDQ)	XYRY	56.99	- 2	-	1.00	70- 95	(25- 65%)	20.6	0.5	2.76	.29	3	9/30	.66	.62	3/31	.073	.066	YES			
1208	Deutsche High Income		KHI	7.60	- 4	2	.70	8- 13	(5- 70%)	NMF	8.0	NMF	.61	-	11/30	9.05(q)	9.89(q)	12/31	.153	.18				
1033	Deutsche Telekom ADR (FNV)		DTEGY	16.36	3	2	1.00	15- 20	(N- 20%)	23.4	3.4	.70	.56	76	9/30	.20	.30	12/31	NIL	NIL	YES			
★	526 Devon Energy		DVN	22.66	5	3	1.50	40- 75	(75-230%)	NMF	4.2	d.28	.96	95	9/30	.76	1.34	3/31	.24	.24	YES			
★	1999 DeVry Education Group		DV	17.14	5	3	4.10	40- 60	(135-250%)	6.9	2.2	2.47	.38	77	12/31	◆.68	.75	12/31	.18	.18	YES			
212	DaxCom Inc.	(NDQ)	DXCM	53.38	2	4	2.05	55- 95	(5- 80%)	NMF	d.15	NIL	.4	9/30	d.07	d.07	12/31	NIL	NIL	YES				
1972	Diageo plc		DEO	103.55	- 1	4	.90	135- 165	(30- 60%)	16.0	3.3	6.48	3.46	8	12/31	3.33(p)	3.28(p)	12/31	2.18	2.06	YES			
1911	Diamond Foods	(NDQ)	DMND	34.98	- 3	-	.80	35- 65	(N- 55%)	27.5	NIL	1.27	NIL	10	10/31	.28	.28	12/31	NIL	NIL	YES			
★	2418 Diamond Offshore		DO	17.37	4	3	1.10	40- 60	(130-245%)	NMF	NIL	d1.29	NIL	94	12/31	d1.79	.72	3/31	▼NIL	.125	YES			
2404	Diamondback Energy	(NDQ)	FANG	67.06	3	3	1.65	70- 100	(5- 50%)	65.1	NIL	1.03	NIL	96	9/30	d2.40	.79	12/31	NIL	NIL	YES			
330	Diana Shipping		DSX	2.20	5	3	1.40	6- 10	(175-355%)	NMF	NIL	d.84	NIL	88	9/30	d.24	d.08	12/31	NIL	NIL	YES			
459	2172 Dick's Sporting Goods		DKS	37.88	4	3	1.00	60- 85	(60-125%)	12.0	1.5	3.15	.56	66	10/31	.45	.41	12/31	.138	.125	YES			
627	1417 Diebold, Inc.		DBD	25.88	▲3	3	1.10	35- 50	(35- 95%)	16.1	4.4	1.61	1.15	82	9/30	.33	.54	3/31	◆.288	.288	YES			
1520	Digital Realty Trust		DLR	77.15	3	3	.80	70- 105	(N- 35%)	56.7	4.4	1.36	3.40	28	9/30	.28	.21	3/31	.85	1.68	YES			
709	DigitalGlobe, Inc.		DGI	13.68	4	3	1.15	20- 30	(45-120%)	54.7	NIL	.25	NIL	29	9/30	.12	NIL	12/31	NIL	NIL	YES			
459	2138 Dillard's, Inc.		DDS	68.94	4	3	1.00	85- 130	(25- 90%)	9.5	0.4	7.25	.28	71	10/31	1.19	1.30	3/31	.07	.06	YES			
360	DineEquity Inc.		DIN	82.12	2	3	4.05	85- 125	(5- 50%)	13.3	4.5	6.17	3.68	11	9/30	1.43	1.14	3/31	▲.92	.875	YES			
2546	Discover Fin'l Svcs.		DFS	45.87	3	3	1.05	75- 105	(65-130%)	8.4	2.4	5.44	1.12	57	12/31	1.14	1.19	3/31	.28	.24	YES			
2331	Discovery Community.	(NDQ)	DISCA	24.72	3	3	4.05	60- 90	(145-265%)	13.3	NIL	1.86	NIL	53	9/30	.43	.41	12/31	NIL	NIL	YES			
1022	Dish Network 'A'	(NDQ)	DISH	40.68	3	3	1.15	40- 60	(N- 45%)	18.2	NIL	2.23	NIL	69	9/30	.42	.31	12/31	NIL	NIL	YES			
★	2332 Disney (Walt)		DIS	92.32	2	1	2.05	110- 135	(20- 45%)	15.8	1.5	5.85	1.42	53	12/31	◆1.73	1.27	3/31	▲.71	1.15	YES			
2007	Dolby Labs.		DLB	37.30	4	3	1.00	40- 60	(5- 60%)	21.0	1.3	1.78	.48	46	12/31									

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PAGE NUMBERS		RANKS										Industry Rank										Do Options Trade?	
Bold type refers to Ratings and Reports; italics to Selection & Opinion		Recent Price		Safety		Technical		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS					
NAME OF STOCK		Ticker Symbol	Timeliness			Beta												Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago
1401	EMC Corp.	EMC	24.17	-	2	-	1.10	30- 40	(25- 65%)	27.2	1.9	.89	.46	64	12/31	.39	.56	3/31	.115	.115	YES		
527	EOG Resources	EOG	65.59	3	3	3	1.40	70- 100	(5- 50%)	95.1	1.1	.69	.73	95	9/30	.02	1.31	3/31	.168	.168	YES		
528	EQT Corp.	EQT	56.97	4	3	4	1.10	80- 125	(40-120%)	NMF	0.2	d.44	.12	95	12/31	♦d.06	.96	3/31	.03	.03	YES		
1109	Eagle Materials	EXP	52.15	4	3	3	1.45	95- 145	(80-180%)	12.6	0.8	4.14	.40	27	12/31	.92	1.03	6/30	.10	.10	YES		
2625	EarthLink Hldgs.	(NDQ) ELNK	5.35	4	4	1	1.00	7- 11	(30-105%)	NMF	3.7	d.25	.20	30	9/30	d.10	d.02	6/30	.05	.05	YES		
2513	East West Bancorp	(NDQ) EWBC	29.15	3	3	2	1.15	40- 60	(35-105%)	10.3	2.7	2.83	.80	54	12/31	.65	.63	3/31	.20	.20	YES		
2446	Eastman Chemical	EMN	58.43	3	3	3	1.30	90- 135	(55-130%)	8.0	3.1	7.27	1.84	50	12/31	.83	.11	3/31	▲.46	.40	YES		
986	Eaton Corp. plc	ETN	54.48	4	2	4	1.25	80- 110	(45-100%)	12.6	4.0	4.31	2.20	59	12/31	1.17	1.27	12/31	.55	.49	YES		
2547	Eaton Vance Corp.	EV	28.17	4	3	3	1.25	55- 80	(95-185%)	11.7	3.8	2.40	1.06	57	10/31	.53	.66	3/31	.265	.25	YES		
2465	eBay Inc.	(NDQ) EBAY	22.01	-	3	-	NMF	40- 60	(80-175%)	13.5	NIL	1.63	NIL	30	12/31	.43	.82	12/31	NIL	NIL	YES		
1023	EchoStar Corp.	(NDQ) SATS	33.50	4	3	3	1.15	40- 60	(20- 80%)	20.3	NIL	1.65	NIL	69	9/30	.32	.69	12/31	NIL	NIL	YES		
562	Ecolab Inc.	ECL	107.20	2	1	3	.90	135- 165	(25- 55%)	22.4	1.3	4.79	1.40	56	9/30	1.28	1.21	3/31	▲.35	.33	YES		
1192	Edgewell Personal Care	EPC	73.90	-	3	-	NMF	60- 85	(N- 15%)	21.1	NIL	3.50	NIL	5	12/31	.68	.32	12/31	NIL	.50	YES		
2230	Edison Int'l	EIX	63.40	3	2	4	.70	65- 85	(5- 35%)	15.9	3.1	3.99	1.95	36	9/30	1.15	1.51	3/31	▲.48	.418	YES		
182	Edwards Lifesciences	EW	76.34	1	3	3	.85	95- 140	(25- 85%)	30.2	NIL	2.53	NIL	3	12/31	.63	.53	12/31	NIL	NIL	YES		
2231	El Paso Electric	EE	41.22	3	2	3	.75	35- 50	(N- 20%)	20.7	3.0	1.99	1.23	36	9/30	1.40	1.30	3/31	.295	.28	YES		
710	Elbit Systems	(NDQ) ESLT	83.91	2	3	3	.75	70- 110	(N- 30%)	18.0	1.8	4.66	1.48	29	9/30	1.16	.82	12/31	.37	.32	YES		
1568	Eldorado Gold	EGO	2.62	5	4	3	1.15	7- 11	(165-320%)	23.8	0.8	.11	.02	90	9/30	.01	.04	12/31	NIL	NIL	YES		
1390	Electro Scientific	(NDQ) ESIO	6.69	-	4	-	1.00	9- 15	(35-125%)	NMF	NIL	NIL	NIL	41	12/31	.01	d.15	12/31	NIL	NIL	YES		
2008	Electronic Arts	(NDQ) EA	58.25	1	3	3	1.20	80- 115	(35- 95%)	17.2	NIL	3.38	NIL	46	12/31	1.83	1.22	12/31	NIL	NIL	YES		
1418	Electr. for Imaging	(NDQ) EFII	37.09	2	3	1	1.05	55- 85	(50-130%)	20.6	NIL	1.80	NIL	82	12/31	.51	.34	12/31	NIL	NIL	YES		
★	1009 Elizabeth Arden	(NDQ) RDEI	5.38	4	3	3	1.05	12- 18	(125-235%)	NMF	NIL	d.82	NIL	52	12/31	♦.10	.28	12/31	NIL	NIL	YES		
389	EMCOR Group	EME	43.13	2	3	2	1.10	45- 65	(5- 50%)	14.5	0.7	2.98	.32	38	9/30	.66	.67	3/31	.08	.08	YES		
1305	Emerson Electric	EMR	46.91	4	1	4	1.10	60- 75	(30- 60%)	15.1	4.1	3.10	1.90	68	12/31	.56	.75	3/31	.475	.47	YES		
1946	Empire Company Ltd.	(TSX) EMPA.TO	25.01	3	3	4	.50	20- 35	(N- 40%)	14.1	1.7	1.78	.43	24	10/31	.25	.42	3/31	.10	.09	YES		
★	910 Empire Dist. Elec.	(TSX) EDE	28.20	-	2	-	.70	20- 25	(N- N/A)	19.6	3.7	1.44	1.04	19	12/31	▲.23	.26	3/31	▲.26	.26	YES		
603	Enbridge Inc.	(TSX) ENB.TO	44.77	3	2	4	.80	55- 75	(25- 70%)	18.3	4.7	2.44	2.12	74	9/30	.47	.41	3/31	▲.53	.465	YES		
1249	529 Encana Corp.	(TSX) ECA	3.83	5	4	2	1.40	10- 15	(160-290%)	NMF	1.6	d.24	.06	95	9/30	d.03	.38	12/31	.07	.07	YES		
1616	Endo Int'l plc	(NDQ) ENDP	52.22	3	3	4	1.00	110- 165	(110-215%)	9.4	NIL	5.58	NIL	35	9/30	1.02	1.15	12/31	NIL	NIL	YES		
1814	Endurance Int'l Group	(NDQ) EIGI	7.69	3	3	3	1.00	16- 25	(110-225%)	96.1	NIL	.08	NIL	22	9/30	d.12	d.06	12/31	NIL	NIL	YES		
2023	Endurance Specialty	ENH	60.99	3	2	2	.85	65- 85	(5- 40%)	9.6	2.3	6.36	1.40	32	12/31	▲1.82	1.70	12/31	.35	.34	YES		
530	Energen Corp.	EGN	26.77	5	3	3	1.50	65- 95	(145-255%)	72.4	0.3	.37	.08	95	9/30	.36	.28	12/31	.02	.02	YES		
1193	Energizer Holdings	ENR	36.59	-	3	-	NMF	50- 65	(35- 80%)	17.4	2.7	2.10	1.00	5	12/31	1.16	1.00	12/31	.25	NIL	YES		
615	Energy Transfer	ETP	20.34	5	3	3	.95	65- 95	(220-365%)	11.6	20.7	1.75	4.22	91	9/30	.22	.47	12/31	▲1.055	.975	YES		
1221	EnerNOC, Inc.	(NDQ) ENOC	4.43	4	5	3	1.60	9- 16	(105-260%)	NMF	NIL	d3.13	NIL	85	9/30	.44	3.11	12/31	NIL	NIL	YES		
531	Enervus Corp.	(TSX) ENR.TO	3.96	4	4	2	1.60	25- 40	(530-910%)	NMF	9.1	d.54	.36	95	9/30	d1.42	.32	12/31	▼.13	.27	YES		
1222	EnerSys	ENS	43.85	3	3	2	1.30	70- 110	(80-150%)	10.6	1.6	4.15	.70	85	12/31	.86	1.04	3/31	.175	.175	YES		
616	EnLink Midstream Part.	ENLK	8.64	4	3	3	1.25	25- 35	(190-305%)	15.2	18.1	.57	1.56	91	9/30	d2.32	.18	12/31	▲.39	.37	YES		
1750	EnPro Industries	NPO	40.67	3	3	4	1.15	70- 110	(70-170%)	24.1	2.0	1.69	.80	58	9/30	.51	.33	12/31	.20	NIL	YES		
2420	Enscor plc	ESV	8.47	5	3	3	1.40	17- 25	(100-195%)	3.5	7.1	2.45	.60	94	9/30	.88	1.93	12/31	.15	.75	YES		
911	Entergy Corp.	ETR	70.74	3	3	5	.70	70- 105	(N- 50%)	12.3	4.8	5.75	3.42	19	9/30	1.89	1.68	3/31	.85	.83	YES		
617	Enterprise Products	EPD	20.80	3	3	4	1.05	45- 70	(115-235%)	16.1	7.6	1.29	1.59	91	12/31	.34	.34	12/31	▲.385	.365	YES		
2334	Entravision Commun.	EVC	6.70	3	5	2	1.50	9- 16	(35-140%)	19.1	1.9	.35	.13	53	9/30	.10	.09	12/31	▲.031	.025	YES		
803	Envision Healthcare	EVHC	18.99	3	3	3	1.05	55- 80	(190-320%)	12.9	NIL	1.47	NIL	31	9/30	.30	.35	12/31	NIL	NIL	YES		
447	Equifax, Inc.	EFX	93.22	1	2	2	.95	110- 150	(20- 60%)	19.5	1.4	4.79	1.32	9	9/30	1.14	1.01	3/31	▲.33	.29	YES		
1815	Equinix, Inc.	(NDQ) EQIX	265.05	2	3	2	1.00	230- 345	(N- 30%)	57.4	2.6	4.62	6.76	22	9/30	.71	.79	12/31	1.69	NIL	YES		
1522	Equity Residential	EQR	71.34	2	3	2	.80	65- 100	(N- 40%)	33.2	3.3	2.15	2.38	28	12/31	.55	.59	3/31	.553	.50	YES		
949	Ericsson ADR(g)	(NDQ) ERIC	8.56	4	3	4	1.20	12- 18	(40-110%)	11.7	4.8	.73	.41	81	12/31	.27	.20	12/31	NIL	NIL	YES		
765	Erie Indemnity	(NDQ) ERIE	96.57	2	2	3	.80	80- 105	(N- 10%)	26.5	3.0	3.65	2.92	6	9/30	.94	.90	3/31	▲.73	.681	YES		
1749	ESCO Technologies	(NDQ) ESE	34.41	4	3	3	1.10	50- 75	(45-120%)	17.6	0.9	1.95	.32	58	12/31	▲.34	.41	6/30	.08	.08	YES		
1419	Essendant Inc.	(NDQ) ESND	27.68	3	3	3	1.10	40- 60	(45-115%)	8.1	2.0	3.41	.56	82	9/30	1.00	.98	3/31	.14	.14	YES		
1523	Essex Property Trust	ESS	193.49	1	3	2	.80	200- 305	(5- 60%)	43.9	3.3	4.41	6.40	28	12/31	▲1.22	.63	3/31	1.44	1.30	YES		
★	711 Esterline Technologies	ESL	52.65	3	3	3	1.25	70- 125	(35-135%)	11.1	NIL	4.75	NIL	29	12/31	▲.62	NA	12/31	NIL	NIL	YES		
1149	Ethan Allen Interiors	ETH	26.70	3	3	4	1.25	40- 55	(50-105%)	13.8	2.5	1.94	.68	12	12/31	.55	.37	6/30	▲.17	.12	YES		
430	European Equity Fund	EEA	7.26	-	4	-	1.05	11- 18	(50-150%)	NMF	1.4	NMF	.10	-	6/30								



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## SUMMARY AND INDEX • THE VALUE LINE INVESTMENT SURVEY

February 19, 2016

## PAGE NUMBERS

Bold type refers to  
Ratings and Reports;  
italics to Selection  
& Opinion

RANKS			Industry Rank										Do Options Trade?																		
Recent Price			Safety			Technical			3-5 year Target Price Range and % appreciation potential			Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS											
NAME OF STOCK			Ticker Symbol		Timeliness		Beta													Qtr. Ended		Earnings Per sh.		Year Ago		Qtr. Ended		Latest Div'd		Year Ago	
2549	Federated Investors	FII	23.58	3	3	3	1.15	35- 50	(50-110%)	12.2	4.2	1.93	1.00	57	12/31	.46	.38	3/31	.25	.25	YES	12/31	.46	.38	3/31	.25	.25	YES			
309	FedEx Corp.	FDX	129.77	3	2	3	1.05	215- 290	(65-125%)	11.5	0.8	11.28	1.00	33	11/30	2.58	2.16	3/31	.25	.20	YES	9/30	d.10	.50	3/31	▲.06	.04	YES			
1525	FelCor Lodging Tr.	FCH	6.61	3	4	4	1.60	11- 19	(65-185%)	34.8	3.6	.19	.24	28	9/30	d.10	.50	3/31	▲.06	.04	YES	9/30	d.10	.50	3/31	▲.06	.04	YES			
103	Ferrari N.V.	RACE	33.96	-	3	-	NMF	45- 65	(35- 90%)	20.1	1.3	1.69	.44	67	12/31	.31	NA	12/31	NIL	NIL	YES	12/31	.31	NA	12/31	NIL	NIL	YES			
563	Ferro Corp.	FOE	8.62	3	5	3	1.70	16- 30	(85-250%)	8.3	NIL	1.04	NIL	56	9/30	.24	.16	12/31	NIL	NIL	YES	9/30	.24	.16	12/31	NIL	NIL	YES			
1831	104 Fiat Chrysler	FCAU	5.88	-	3	-	NMF	13- 19	(120-225%)	4.1	NIL	1.42	NIL	67	12/31	.80	.39	12/31	NIL	NIL	YES	12/31	.80	.39	12/31	NIL	NIL	YES			
2550	Fidelity National	FIS	57.93	2	2	3	.95	70- 90	(20- 55%)	18.2	1.8	3.18	1.04	57	12/31	◆.35	.70	3/31	.26	.26	YES	12/31	◆.35	.70	3/31	.26	.26	YES			
363	Fiesta Restaurant	FRGI	35.78	3	3	5	.95	75- 115	(110-220%)	20.0	NIL	1.79	NIL	11	9/30	.32	.34	12/31	NIL	NIL	YES	9/30	.32	.34	12/31	NIL	NIL	YES			
781	Fifth Third Bancorp	FTIB	14.83	3	3	3	1.10	25- 35	(70-135%)	7.1	3.8	2.09	.56	49	12/31	.79	.43	3/31	.13	.13	YES	12/31	.79	.43	3/31	.13	.13	YES			
1250	Finisar Corp.	FNSR	12.93	4	4	3	1.50	25- 40	(95-210%)	20.9	NIL	.62	NIL	43	10/31	.06	d.11	12/31	NIL	NIL	YES	10/31	.06	d.11	12/31	NIL	NIL	YES			
1832	2213 Finish Line (The)	FINL	17.85	4	3	4	1.00	20- 30	(10- 70%)	14.8	2.2	1.21	.40	75	11/30	d.49	d.02	3/31	▲.10	.09	YES	11/30	d.49	d.02	3/31	▲.10	.09	YES			
2583	FireEye Inc.	FEYE	12.02	4	4	3	1.65	35- 60	(190-400%)	NMF	NIL	d3.12	NIL	26	9/30	d.88	d.83	12/31	NIL	NIL	YES	9/30	d.88	d.83	12/31	NIL	NIL	YES			
2551	First Cash Fin'l Svcs	FCFS	37.91	4	3	5	.95	55- 85	(45-125%)	16.9	1.3	2.24	.50	57	12/31	.69	.94	3/31	▲.125	.11	YES	12/31	.69	.94	3/31	▲.125	.11	YES			
2514	First Commonwealth	FCF	8.29	3	3	3	1.15	19- 25	(130-200%)	12.0	3.4	.69	.28	54	12/31	.11	.09	3/31	.07	.07	YES	12/31	.11	.09	3/31	.07	.07	YES			
782	First Horizon National	FHN	12.07	3	3	2	1.20	12- 19	(N- 55%)	14.0	2.3	.86	.28	49	12/31	.20	.20	6/30	▲.07	.06	YES	12/31	.20	.20	6/30	▲.07	.06	YES			
783	First Midwest Bancorp	FMBI	16.35	3	3	1	1.15	16- 25	(N- 55%)	14.5	2.4	1.13	.40	49	12/31	.21	.19	3/31	.09	.08	YES	12/31	.21	.19	3/31	.09	.08	YES			
1504	First Niagara Finl Group	FNFG	9.32	-	3	-	1.05	10- 15	(5- 60%)	15.8	3.4	.59	.32	39	12/31	◆.12	.17	3/31	.08	.08	YES	12/31	◆.12	.17	3/31	.08	.08	YES			
1223	First Solar, Inc.	FSLR	66.48	3	3	2	1.50	85- 125	(30- 90%)	19.1	NIL	3.48	NIL	85	9/30	3.41	.87	12/31	NIL	NIL	YES	9/30	3.41	.87	12/31	NIL	NIL	YES			
147	FirstEnergy Corp.	FE	33.32	3	3	5	.65	30- 45	(N- 35%)	15.9	4.3	2.10	1.44	44	9/30	.93	.79	3/31	.36	.36	YES	9/30	.93	.79	3/31	.36	.36	YES			
2456	FirstMerit Corp.	FMR	19.26	-	3	-	1.00	20- 30	(5- 55%)	13.5	3.5	1.43	.68	49	12/31	.33	.36	12/31	.17	.16	YES	12/31	.33	.36	12/31	.17	.16	YES			
2610	Fiserv Inc.	FISV	92.09	1	2	3	.90	70- 95	(N- 5%)	22.9	NIL	4.03	NIL	1	12/31	1.00	.89	12/31	NIL	NIL	YES	12/31	1.00	.89	12/31	NIL	NIL	YES			
1832	1330 Fitbit Inc.	FIT	14.30	-	3	-	NMF	50- 75	(250-425%)	14.6	NIL	.98	NIL	63	9/30	.24	NA	12/31	NIL	NIL	YES	9/30	.24	NA	12/31	NIL	NIL	YES			
2141	Five Below, Inc.	FIVE	32.55	3	3	4	.85	55- 80	(70-145%)	28.8	NIL	1.13	NIL	71	10/31	.08	.06	12/31	NIL	NIL	YES	10/31	.08	.06	12/31	NIL	NIL	YES			
2552	FleetCor Technologies	FLT	113.87	2	3	3	.95	175- 260	(55-130%)	16.4	NIL	6.95	NIL	57	12/31	◆1.70	1.39	12/31	NIL	NIL	YES	12/31	◆1.70	1.39	12/31	NIL	NIL	YES			
1331	Flextronics Int'l	FLEX	9.94	3	3	3	1.20	13- 18	(30- 80%)	10.1	NIL	.98	NIL	63	12/31	.27	.26	12/31	NIL	NIL	YES	12/31	.27	.26	12/31	NIL	NIL	YES			
★	1912 Flowers Foods	FLO	20.37	3	3	3	.75	25- 35	(25- 70%)	19.4	2.8	1.05	.58	10	9/30	.23	.21	12/31	.145	.133	YES	9/30	.23	.21	12/31	.145	.133	YES			
1712	Flowerserve Corp.	FLS	39.59	4	3	3	1.30	65- 100	(65-155%)	13.6	1.8	2.91	.72	37	9/30	.81	.93	3/31	.18	.16	YES	9/30	.81	.93	3/31	.18	.16	YES			
1239	Fluor Corp.	FLR	43.16	4	3	4	1.35	100- 135	(130-215%)	11.4	1.9	3.80	.84	80	9/30	1.17	1.15	6/30	◆.21	.21	YES	9/30	1.17	1.15	6/30	◆.21	.21	YES			
2455	1505 Flushing Financial	FFIC	19.86	3	3	2	.85	20- 30	(N- 50%)	13.1	3.4	1.52	.68	39	12/31	.40	.38	12/31	.16	.15	YES	12/31	.40	.38	12/31	.16	.15	YES			
2214	Foot Locker	F	63.64	2	3	3	.95	70- 105	(10- 65%)	13.9	1.6	4.57	1.00	75	10/31	1.00	.83	3/31	.25	.22	YES	10/31	1.00	.83	3/31	.25	.22	YES			
105	Ford Motor	F	11.35	3	3	3	1.20	17- 25	(50-120%)	5.6	5.8	2.03	.66	67	12/31	.58	.26	3/31	.15	.15	YES	12/31	.58	.26	3/31	.15	.15	YES			
1832	392 Forest City Enterpr.	FCEA	16.78	-	4	-	1.30	25- 45	(50-170%)	32.3	NIL	.52	NIL	38	9/30	d.118	NIL	12/31	NIL	NIL	YES	9/30	d.118	NIL	12/31	NIL	NIL	YES			
449	Forrester City Realty	FORR	31.06	3	3	5	.70	40- 60	(30- 95%)	28.2	2.3	1.10	.72	9	9/30	.30	.25	12/31	.17	.16	YES	9/30	.30	.25	12/31	.17	.16	YES			
2584	Fortinet Inc.	FTNT	23.84	2	3	2	1.15	50- 75	(110-215%)	99.3	NIL	.24	NIL	26	12/31	d.01	.04	12/31	NIL	NIL	YES	12/31	d.01	.04	12/31	NIL	NIL	YES			
★	1751 Fortis Inc.	FTS	37.14	3	2	3	.65	40- 55	(10- 50%)	17.7	4.0	2.10	1.50	58	9/30	.52	.06	3/31	.375	.34	YES	9/30	.52	.06	3/31	.375	.34	YES			
2650	Fortress Investment	FIG	4.18	3	4	2	1.35	13- 20	(210-380%)	3.3	7.7	1.28	.32	86	9/30	.15	.12	12/31	.08	.08	YES	9/30	.15	.12	12/31	.08	.08	YES			
1150	Fortune Brands Home	FBHS	45.61	1	3	2	1.25	65- 95	(45-110%)	18.9	1.4	2.41	.64	12	12/31	◆.56	.44	3/31	▲.16	.14	YES	12/31	◆.56	.44	3/31	▲.16	.14	YES			
320	Forward Air	FWRD	42.95	▲	3	4	1.05	70- 105	(65-145%)	16.8	1.1	2.56	.48	65	12/31	◆.76	.55	3/31	◆.12	.12	YES	12/31	◆.76	.55	3/31	◆.12	.12	YES			
460	2174 Fossil Group	FOSL	33.67	5	3	4	1.35	85- 130	(150-285%)	7.3	NIL	4.59	NIL	66	9/30	1.19	1.96	12/31	NIL	NIL	YES	9/30	1.19	1.96	12/31	NIL	NIL	YES			
2215	Francesca's Hldgs.	FRAN	17.23	3	3	2	.80	25- 35	(45-105%)	17.8	NIL	.97	NIL	75	10/31	.16	.17	12/31	NIL	NIL	YES	10/31	.16	.17	12/31	NIL	NIL	YES			
1569	Franco-Nevada Corp.	FNV	51.53	3	3	4	.75	45- 70	(N- 35%)	NMF	1.6	.43	.84	90	9/30	.10	.22	12/31	.21	.20	YES	9/30	.10	.22	12/31	.21	.20	YES			
1307	Franklin Electric	FELE	27.38	3	3	4	1.20	45- 65	(65-135%)	15.8	1.4	1.73	.39	68	9/30	.43	.46	3/31	.098	.09	YES	9/30	.43	.46	3/31	.098	.09	YES			
2553	Franklin Resources	BEN	32.09	4	2	3	1.25	60- 80	(85-150%)	9.3	2.3	3.45	.75	57	12/31	.74	.91	3/31	▲.18	.12	YES	12/31	.74	.91	3/31	▲.18	.12	YES			
2142	Fred's Inc.	FRED	12.80	3	3	3	1.00	19- 30	(50-135%)	45.7	1.9	.28	.24	71	10/31	.04	d.29	12/31	.06	.06	YES	10/31	.04	d.29	12/31	.06	.06	YES			
2455	1587 Freep't-McMoran Inc.	FCX	5.00	5	4	3	1.70	25- 35	(400-600%)	41.7	NIL	.12	NIL	97	12/31	d.02	.52	3/31	▼NIL	.313	YES	12/31	d.02	.52	3/31	▼NIL	.313	YES			

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PAGE NUMBERS		RANKS										Industry Rank										Do Options Trade?					
Bold type refers to Ratings and Reports; italics to Selection & Opinion		Recent Price		Timeliness		Safety		Technical		Beta		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS					
NAME OF STOCK		Ticker Symbol																				Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago
991	Genuine Parts	GPC	86.39	2	1	5	.95	110-135	(25-55%)	22.6	2.8	3.83	2.46	59	9/30	1.24	1.24	3/31	.615	.575	YES						
1553	Genworth Fin'l	GNW	1.67	4	4	1	1.75	8-13	(360-680%)	2.9	NIL	.57	NIL	79	12/31	♦d.17	d.84	12/31	NIL	NIL	YES						
1526	Geo Group (The)	GEO	27.45	3	3	4	.95	50-70	(80-155%)	13.0	9.5	2.11	2.61	28	9/30	.52	.54	3/31	♦.65	.62	YES						
460	Geospace Technologies	GEOS	9.68	4	4	3	1.65	17-30	(75-210%)	NMF	NIL	d2.50	NIL	55	12/31	♦d.85	d.41	12/31	NIL	NIL	YES						
745	Gibraltar Inds.	ROCK	19.24	2	4	1	1.35	18-30	(N-55%)	21.1	NIL	.91	NIL	93	9/30	.43	.30	12/31	NIL	NIL	YES						
2105	Gildan Activewear	GIL	22.71	3	3	3	.95	40-60	(75-165%)	13.1	1.3	1.74	.30	60	9/30	.52	.50	12/31	.065	NIL	YES						
1617	Gilead Sciences	GILD	87.25	3	3	3	.95	115-175	(30-100%)	7.5	2.0	11.56	1.72	35	12/31	3.18	2.18	3/31	.43	NIL	YES						
2651	Gladstone Capital	GLAD	5.71	4	3	3	1.00	14-20	(145-250%)	5.9	14.7	.97	.84	86	12/31	♦d.38	.02	3/31	.21	.21	YES						
1163	Glatfelter	GLT	17.53	4	3	3	.95	25-35	(45-100%)	10.4	2.7	1.68	.48	61	12/31	♦.78	.45	3/31	.12	.11	YES						
1618	GlaxoSmithKline ADR(g)	GSK	39.34	4	1	4	.85	45-60	(15-55%)	20.8	5.9	1.89	2.32	35	9/30	.34	.28	12/31	.577	.65	YES						
2335	Global Eagle Entertain.	ENT	9.32	3	4	4	1.40	12-20	(30-115%)	NMF	NIL	.04	NIL	53	9/30	d.09	d.11	12/31	NIL	NIL	YES						
2555	Global Payments	GNP	52.47	1	2	1	1.05	75-100	(45-90%)	22.2	0.1	2.36	.04	57	11/30	.60	.55	12/31	.01	.01	YES						
183	Globus Medical	GMED	22.49	1	3	1	.85	25-40	(10-80%)	19.4	NIL	1.16	NIL	3	9/30	.28	.24	12/31	NIL	NIL	YES						
926	Gogo Inc.	GOGO	13.04	3	4	3	1.20	20-30	(55-130%)	NMF	NIL	d1.34	NIL	25	9/30	d.37	d.29	12/31	NIL	NIL	YES						
2457	Golar LNG Ltd.	GLNG	14.50	4	4	3	1.60	40-70	(175-385%)	NMF	1.4	d.81	.20-1.80	88	9/30	d.45	.01	3/31	.45	.45	YES						
1570	Goldcorp Inc.	GG	14.16	4	3	4	.85	25-40	(75-180%)	59.0	1.7	.24	.24	90	9/30	d.03	.05	12/31	.06	.15	YES						
1802	Goldman Sachs	GS	148.25	3	2	3	1.25	240-320	(60-115%)	7.9	1.8	18.88	2.60	72	12/31	4.68	4.38	12/31	.65	.60	YES						
992	Goodyear Tire	GT	27.45	2	4	2	1.50	35-55	(30-100%)	7.7	1.0	3.58	.28	59	12/31	♦.93	.59	3/31	.07	.06	YES						
2656	GoPro, Inc.	GPRO	11.39	-	3	-	NMF	50-75	(340-560%)	9.9	NIL	1.15	NIL	63	12/31	d.25	.83	12/31	NIL	NIL	YES						
164	Gorman-Rupp Co.	GRC	23.75	3	3	3	1.10	25-35	(5-45%)	27.3	1.8	.87	.42	83	12/31	♦.22	.30	3/31	.105	.10	YES						
565	Grace (W.R.) & Co.	GRA	68.31	-	3	-	NMF	130-200	(90-195%)	14.4	NIL	4.74	NIL	56	9/30	1.06	.99	12/31	NIL	NIL	YES						
1713	Graco Inc.	GGG	71.65	2	3	4	1.25	85-125	(20-75%)	19.4	1.8	3.69	1.32	37	12/31	.94	.73	3/31	♦.33	.30	YES						
1753	Graham Hldgs.	GHC	468.37	-	3	-	NMF	560-840	(20-80%)	17.5	1.0	26.70	4.84	58	9/30	6.05	8.69	3/31	♦1.21	2.65	YES						
1310	Grainger (W.W.)	GWV	209.79	4	1	3	.95	265-325	(25-55%)	17.9	2.2	11.74	4.88	68	12/31	2.49	2.80	3/31	1.17	1.08	YES						
1240	Granite Construction	GVA	36.88	3	3	2	1.25	40-60	(10-65%)	14.7	1.4	2.51	.52	80	9/30	.77	.38	3/31	.13	.13	YES						
1179	Graphic Packaging	GPK	11.97	3	3	4	1.20	16-25	(35-110%)	13.9	1.7	.86	.20	51	12/31	♦.19	.21	3/31	.05	NIL	YES						
912	G't Plains Energy	GXP	28.95	3	3	3	.80	20-35	(N-20%)	16.7	3.7	1.73	1.06	19	9/30	.82	.95	12/31	♦.263	.245	YES						
1333	Greatbatch, Inc.	GB	33.78	-	3	-	1.05	80-120	(135-255%)	10.3	NIL	3.29	NIL	63	9/30	.58	.64	12/31	NIL	NIL	YES						
1226	Green Plains Inc.	GPPE	16.06	4	3	3	1.55	30-40	(85-150%)	12.4	3.0	1.29	.48	85	9/30	1.16	1.03	12/31	.12	.08	YES						
345	Greenbrier (The) Cos.	GBX	26.02	3	4	4	2.05	55-95	(110-265%)	3.9	3.1	6.65	.80	70	11/30	2.15	1.01	3/31	.20	.15	YES						
1803	Greenhill & Co.	GHL	23.09	4	3	3	1.35	40-60	(75-160%)	14.4	7.8	1.60	1.80	72	12/31	.25	.51	3/31	.45	.45	YES						
2025	Greenlight Capital Re	GLRE	19.25	4	3	4	.90	30-45	(55-135%)	8.2	NIL	2.34	NIL	32	9/30	d5.98	d1.40	12/31	NIL	NIL	YES						
1180	Greif, Inc.	GEF	25.89	4	3	3	1.25	45-70	(75-170%)	11.8	6.5	2.20	1.68	51	10/31	.76	.85	3/31	.42	.42	YES						
1754	Griffon Corp.	GFF	13.81	3	3	1	1.35	25-35	(80-155%)	17.3	1.4	.80	.20	58	12/31	.18	.16	3/31	.05	.04	YES						
2125	Group 1 Automotive	GPI	53.27	3	3	3	1.15	110-160	(105-200%)	7.0	1.7	7.64	.88	18	9/30	1.91	1.57	12/31	♦.22	.19	YES						
2629	Groupon, Inc.	GRPN	2.22	5	5	2	1.25	2-4	(N-80%)	NMF	NIL	d.16	NIL	30	9/30	d.04	d.03	12/31	NIL	NIL	YES						
626	Guess Inc.	GES	18.01	4	3	3	1.20	25-35	(40-95%)	16.4	5.0	1.10	.90	60	10/31	.15	.24	12/31	.225	.225	YES						
334	GuilMark Offshore	GLF	3.44	5	4	3	1.75	10-20	(190-480%)	NMF	NIL	d1.92	NIL	88	9/30	d.55	.92	12/31	NIL	.25	YES						
804	HCA Holdings	HCA	66.50	3	3	5	1.15	75-115	(15-75%)	12.0	NIL	5.56	NIL	31	12/31	1.69	1.33	12/31	NIL	NIL	YES						
1528	HCP Inc.	HCP	28.33	3	4	3	.80	40-60	(40-110%)	13.1	8.1	2.16	2.30	28	12/31	♦d1.29	.51	3/31	♦.575	.565	YES						
1110	HD Supply Holdings	HDS	22.58	2	3	3	1.35	40-60	(75-165%)	10.8	NIL	2.10	NIL	27	10/31	.66	.28	12/31	NIL	NIL	YES						
1151	HNI Corp.	HNI	31.42	3	3	3	1.35	75-105	(140-235%)	10.9	3.4	2.88	1.06	12	9/30	.93	.81	12/31	.265	.25	YES						
2177	HSN, Inc.	HSNI	42.06	4	3	4	.95	75-115	(80-175%)	12.0	3.7	3.50	1.54	66	9/30	.64	.74	12/31	.35	.35	YES						
214	Haemonetics Corp.	HAE	32.04	4	2	5	.85	45-60	(40-85%)	18.1	NIL	1.77	NIL	4	12/31	.48	.53	12/31	NIL	NIL	YES						
1915	Hain Celestial Group	HAIN	34.13	3	3	4	.95	45-70	(30-105%)	15.9	NIL	2.15	NIL	10	12/31	.57	.54	12/31	NIL	NIL	YES						
1248	Halliburton Co.	HAL	29.59	4	3	3	1.50	50-75	(70-155%)	65.8	2.4	.45	.72	94	12/31	d.03	1.06	12/31	.18	.18	YES						
7425	Hancock Holding	HBHC	22.80	4	3	3	1.05	40-60	(75-165%)	11.8	4.2	1.94	.96	49	12/31	.19	.56	3/31	.24	.24	YES						
2107	Hanesbrands, Inc.	HBI	24.03	2	3	3	1.00	40-55	(65-130%)	13.1	1.8	1.84	.44	60	12/31	♦.44	.37	3/31	♦.11	.10	YES						
766	Hanover Insurance	THG	80.89	2	2	3	.90	90-120	(10-50%)	13.7	2.3	5.91	1.84	6	12/31	♦1.82	1.77	12/31	♦.46	.41	YES						
2310	Harley-Davidson	HOG	38.71	4	3	3	1.15	75-115	(95-195%)	9.9	3.6	3.91	1.40	21	12/31	.22	.35	3/31	♦.35	.31	YES						
1311	Harman Int'l	HAR	67.64	3	3	3	1.55	145-220	(115-225%)	10.8	2.1	6.27	1.40	68	12/31	1.55	1.65	3/31	.35	.33	YES						
951	Harmonic, Inc.	HUIT	3.12	5	3	2	1.30	10-15	(220-380%)	20.8	NIL	.15	NIL	81	9/30	NIL	.06	12/31	NIL	NIL	YES						



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AGE NUMBERS			RANKS										Industry Rank										Do Options Trade?					
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NAME OF STOCK			Ticker Symbol																				Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago
2358	Hilton Worldwide Hldgs.	HLT	17.64	3	3	3	1.25	35- 50	(100-185%)	17.3	1.6	1.02	28	48	9/30	.28	.19	12/31	.07	NIL	YES							
1983	Hitachi, Ltd. ADR(g)	(FNV) HTHY	40.26	4	3	3	1.00	70- 105	(75-160%)	8.3	2.5	4.85	1.02	78	9/30	.80	1.20	12/31	.488	.509	YES							
507	HollyFrontier Corp.	HFC	31.04	3	3	3	1.20	50- 75	(60-140%)	7.4	4.4	4.17	1.36	87	9/30	1.04	.88	12/31	.33	.32	YES							
216	Hologic, Inc.	(NDQ) HOLX	32.89	1	3	2	1.10	35- 55	(5- 65%)	31.3	NIL	1.05	NIL	4	12/31	.29	.10	12/31	NIL	NIL	YES							
460	1139 Home Depot	HD	113.86	1	1	3	.95	130- 160	(15- 40%)	18.9	2.2	6.01	2.52	2	10/31	1.35	1.10	12/31	.59	.47	YES							
107	Honda Motor ADR(g)	HMC	25.32	4	3	3	1.00	45- 70	(80-175%)	10.6	3.2	2.40	.82	67	12/31	.57	.61	12/31	.178	.185	YES							
1755	Honeywell Int'l	HON	102.72	2	1	3	1.10	115- 140	(10- 35%)	16.0	2.3	6.43	2.38	58	12/31	1.58	1.43	12/31	▲.595	.518	YES							
1918	Hormel Foods(*)	HRL	41.43	1	1	3	.75	40- 50	(N- 20%)	27.6	1.4	1.50	.58	10	10/31	.37	.32	3/31	▲.145	.125	YES							
1125	Horton D.R.	DHI	24.04	2	3	1	1.35	35- 55	(45-130%)	10.5	1.3	2.30	.32	47	12/31	.42	.39	3/31	.08	.063	YES							
1530	Hospitality Properties	HPT	22.17	3	3	3	1.15	35- 55	(60-150%)	12.9	9.2	1.72	2.03	28	9/30	.37	.29	3/31	.50	.49	YES							
1531	Host Hotels & Resorts	HST	13.85	4	3	4	1.35	25- 40	(80-190%)	19.0	6.0	.73	.83	28	9/30	.11	.19	3/31	.20	.20	YES							
1126	Hovnanian Enterpr. 'A'	HOV	1.30	-	5	-	1.90	6- 14	(360-975%)	6.5	NIL	.20	NIL	47	10/31	.17	.18	12/31	NIL	NIL	YES							
397	Howard Hughes Corp.	HHC	83.97	3	3	3	1.30	170- 255	(100-205%)	65.1	NIL	1.29	NIL	38	9/30	3.96	1.16	12/31	NIL	NIL	YES							
322	Hub Group	(NDQ) HUBG	35.83	3	3	4	1.10	50- 75	(40-110%)	16.1	NIL	2.23	NIL	65	12/31	◆.63	.41	12/31	NIL	NIL	YES							
1312	Hubbell Inc.	HUBB	89.96	3	2	3	1.15	95- 130	(5- 45%)	16.9	2.8	5.31	2.52	68	12/31	1.06	1.38	3/31	.63	.56	YES							
808	Humana Inc.	HUM	159.53	-	3	-	.80	140- 210	(N- 30%)	18.2	0.7	8.75	1.16	31	12/31	◆1.45	1.09	3/31	.29	.28	YES							
323	Hunt (J.B.)	(NDQ) HJBT	75.12	3	2	5	.90	110- 130	(45- 75%)	19.1	1.2	3.93	.88	65	12/31	1.01	.93	3/31	▲.22	.21	YES							
786	Huntington Bancshs.	(NDQ) HBAN	8.45	3	3	2	1.15	11- 16	(30- 90%)	9.7	3.3	.87	.28	49	12/31	.21	.19	6/30	.07	.06	YES							
714	Huntington Ingalls	HII	125.46	▲	1	3	1.05	90- 135	(N- 10%)	13.7	1.6	9.18	2.00	29	9/30	2.29	1.96	12/31	▲.50	.40	YES							
2448	Huntsman Corp.	HUN	8.37	▲	4	4	1.75	30- 40	(260-380%)	4.8	6.0	1.74	.50	50	9/30	.22	.76	3/31	◆.125	.125	YES							
398	Huron Consulting	(NDQ) HURN	50.95	3	3	4	.95	60- 95	(20- 85%)	17.6	NIL	2.89	NIL	38	9/30	.86	.53	12/31	NIL	NIL	YES							
2243	508 Husky Energy	(TSX) HSE.TO	12.72	4	3	4	.95	25- 35	(95-175%)	39.8	NIL	.32	NIL	87	9/30	d.12	.51	3/31	▼NIL	.295	YES							
2359	Hyatt Hotels	H	39.45	3	3	3	1.15	65- 100	(65-155%)	29.0	NIL	1.36	NIL	48	9/30	.30	.20	12/31	NIL	NIL	YES							
2630	IAC/InterActiveCorp	(NDQ) IAC	40.42	3	3	3	1.05	105- 155	(160-285%)	23.5	3.7	1.72	1.50	30	12/31	d.38	.73	12/31	.34	.34	YES							
184	ICU Medical	(NDQ) ICUI	87.51	1	3	1	.75	90- 130	(5- 50%)	26.3	NIL	3.33	NIL	3	12/31	◆.73	.55	12/31	NIL	NIL	YES							
451	IHS Inc.	IHS	95.74	3	3	3	.95	110- 165	(15- 70%)	25.4	NIL	3.77	NIL	9	11/30	1.32	.88	12/31	NIL	NIL	YES							
123	II-VI Inc.	(NDQ) IIVI	20.00	3	3	3	1.25	20- 30	(N- 50%)	16.9	NIL	1.18	NIL	55	12/31	.30	.24	12/31	NIL	NIL	YES							
825	IMS Health Hldgs.	IMS	23.30	-	3	-	NMF	35- 50	(50-115%)	15.2	NIL	1.53	NIL	16	12/31	.37	.36	12/31	NIL	NIL	YES							
1391	IPG Photonics Corp.	(NDQ) IPGP	82.06	2	3	3	1.35	105- 155	(30- 90%)	16.8	NIL	4.89	NIL	41	9/30	1.18	1.05	12/31	NIL	NIL	YES							
★ ★	913 ITC Holdings	ITC	38.65	-	2	-	.70	45- 65	(15- 70%)	19.1	2.1	2.02	.80	19	9/30	.42	.47	3/31	◆.188	.163	YES							
1756	ITT Corp.	ITT	31.84	3	3	3	1.20	50- 70	(55-120%)	12.0	1.5	2.65	.47	58	9/30	.63	.87	12/31	.118	.22	YES							
1648	2108 Iconix Brand Group	(NDQ) ICON	6.76	5	4	4	1.30	15- 25	(120-270%)	4.7	NIL	1.45	NIL	60	9/30	.09	.58	12/31	NIL	NIL	YES							
2233	IDACORP, Inc.	IDA	70.48	3	2	3	.80	60- 80	(N- 15%)	17.8	2.9	3.97	2.04	36	9/30	1.46	1.73	3/31	.51	.47	YES							
1714	IDEX Corp.	IEX	71.47	2	3	3	1.10	95- 140	(35- 95%)	18.2	1.8	3.92	1.28	37	12/31	.94	.77	3/31	.32	.28	YES							
217	IDEXX Labs.	(NDQ) IDXX	68.49	2	3	2	.95	65- 100	(N- 45%)	32.2	NIL	2.13	NIL	4	12/31	.48	.27	12/31	NIL	NIL	YES							
733	Illinois Tool Works	ITW	90.36	3	1	4	1.05	110- 135	(20- 50%)	17.0	2.4	5.33	2.20	89	12/31	1.23	1.18	3/31	.55	.485	YES							
218	Illumina Inc.	(NDQ) ILMN	139.49	3	3	3	.90	235- 355	(70-155%)	40.4	NIL	3.45	NIL	4	12/31	.70	1.03	12/31	NIL	NIL	YES							
2312	IMAX Corp.	IMAX	26.45	2	3	2	1.25	50- 80	(90-200%)	20.5	NIL	1.29	NIL	21	9/30	.12	.07	12/31	NIL	NIL	YES							
509	Imperial Oil Ltd.	(ASX) IMO	30.58	4	2	4	1.20	45- 60	(45- 95%)	25.9	1.8	1.18	.56	87	12/31	.08	.66	6/30	▲.14	.104	YES							
★ ★	834 Incyte Corp.	(NDQ) INCY	72.26	▲	2	4	1.30	100- 185	(40-155%)	NMF	NIL	.49	NIL	42	9/30	d.22	.35	12/31	NIL	NIL	YES							
431	India Fund (The)	IFN	20.82	-	3	3	1.00	35- 50	(70-140%)	NMF	0.5	NMF	.10	-	6/30	29.48(q)	27.97(q)	12/31	NIL	NIL	YES							
952	Infinera Corp.	(NDQ) INFN	13.36	3	5	1	1.25	25- 50	(85-275%)	25.7	NIL	.52	NIL	81	9/30	.06	.04	12/31	NIL	NIL	YES							
847	589 Infoblox Inc.	BLOX	14.86	4	3	4	1.05	30- 45	(100-205%)	NMF	NIL	d.27	NIL	43	10/31	d.03	d.18	12/31	NIL	NIL	YES							
2612	Infosys Ltd. ADR	INFY	16.34	3	2	3	.85	25- 35	(55-115%)	17.4	1.7	.94	.27	1	12/31	.23	.23	12/31	.133	.117	YES							
1757	Ingersoll-Rand	IR	50.15	3	3	4	1.20	65- 95	(30- 90%)	12.9	2.6	3.88	1.28	58	12/31	◆.94	.82	3/31	▲.32	.29	YES							
1948	Ingles Markets	(NDQ) IMKT	34.44	3	3	2	.75	45- 65	(30- 90%)	10.6	1.9	3.25	.66	24	12/31	◆.64	.74	3/31	.165	.165	YES							
1403	Ingram Micro 'A'	IM	27.39	2	3	2	1.05	40- 60	(45-120%)	9.0	1.5	3.05	.40	64	9/30	.67	.62	12/31	.10	NIL	YES							
1919	Ingredion Inc.	INGR	102.99	2	3	3	1.05	90- 135	(N- 30%)	17.4	1.8	5.92	1.83	10	12/31	1.42	1.27	3/31	.45	.42	YES							
566	Innospec Inc.	(NDQ) IOSP	47.76	2	3																							

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Bold type refers to Ratings and Reports; Italics to Selection & Opinion		Recent Price		Timeliness		Safety		Technical		Beta		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS					
NAME OF STOCK		Ticker Symbol																				Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago
364	Jack in the Box	(ND) JACK	72.13	2	3	4	.85	60- 90	(N- 25%)	20.6	1.7	3.50	1.20	11	9/30	.62	.54	12/31	.30	.20	YES						
1241	Jacobs Engineering	JEC	35.50	3	3	3	1.25	50- 80	(40-125%)	11.5	NIL	3.10	NIL	80	12/31	.78	.77	12/31	NIL	NIL	YES						
2558	Janus Capital Group	JNS	11.51	3	3	3	1.40	16- 25	(40-115%)	12.8	3.1	.90	.36	57	12/31	.25	.24	3/31	.09	.08	YES						
432	Japan Smaller Cap Fd	JOF	9.05	-	4	3	.80	13- 20	(45-120%)	NMF	1.3	NMF	.12	-	8/31	11.77(q)	10.98(q)	12/31	.167	.119	YES						
1039	Jarden Corp.	JAH	48.93	-	3	-	1.05	40- 60	(N- 25%)	32.8	NIL	1.49	NIL	5	9/30	.57	.58	12/31	NIL	NIL	YES						
837	Jazz Pharm. plc	(ND) JAZZ	116.70	3	3	3	1.25	185- 280	(60-140%)	10.6	NIL	11.05	NIL	42	9/30	2.52	2.33	12/31	NIL	NIL	YES						
969	Jean Coutu Group	(TSE) PJCA.TO	19.80	3	2	5	.55	25- 35	(25- 75%)	15.7	2.2	1.26	.44	15	11/30	.31	.30	3/31	.11	.10	YES						
311	JetBlue Airways	(ND) JBLU	20.08	2	3	3	1.10	35- 50	(75-150%)	9.0	NIL	2.23	NIL	33	12/31	.56	.26	12/31	NIL	NIL	YES						
2457	Johnson & Johnson	JNJ	101.97	2	1	3	.75	130- 160	(25- 55%)	17.7	3.1	5.75	3.20	4	12/31	1.44	.89	3/31	.75	.70	YES						
2463	Johnson Controls	JCI	35.33	-	3	-	1.30	70- 100	(100-185%)	9.4	3.3	3.77	1.16	59	12/31	.82	.79	6/30	.29	.26	YES						
400	Jones Lang LaSalle	JLL	104.92	▼3	3	2	1.35	165- 245	(55-135%)	10.5	0.6	10.03	.58	38	12/31	4.53	4.30	12/31	▲.29	.25	YES						
1251	Joy Global	JOY	10.75	5	3	4	1.50	25- 40	(135-270%)	35.8	0.4	.30	.04	83	10/31	.43	1.38	3/31	▼.01	.20	YES						
2458	Juniper Networks	JNPR	21.99	3	3	2	1.35	30- 50	(35-125%)	12.8	2.1	1.72	.46	81	12/31	.52	.31	3/31	.10	.10	YES						
2126	KAR Auction Svcs.	KAR	32.15	3	3	2	1.00	50- 70	(55-120%)	18.7	3.4	1.72	1.08	18	9/30	.37	.33	3/31	.27	.27	YES						
1832	KB Home	KBH	9.76	3	4	3	1.65	19- 30	(95-205%)	8.7	1.0	1.12	.10	47	11/30	.43	.28	3/31	.025	.025	YES						
1242	KBR, Inc.	KBR	12.29	3	3	2	1.55	18- 25	(45-105%)	9.8	2.6	1.25	.32	80	9/30	.38	.21	3/31	.08	.08	YES						
2652	KKR & Co. L.P.	(ND) KKR	12.62	4	3	3	1.40	30- 45	(140-255%)	4.6	5.1	2.77	.64	86	9/30	d.37	.50	12/31	▼.35	.45	YES						
124	KLA-Tencor	KLAC	63.96	-	3	-	1.15	80- 120	(25- 90%)	16.2	3.3	3.94	2.08	55	12/31	1.04	.68	3/31	◆.52	.50	YES						
1758	Kadant Inc.	KAI	38.00	3	3	4	1.25	45- 70	(20- 85%)	12.0	1.8	3.16	.68	58	9/30	.78	.63	3/31	.17	.15	YES						
1759	Kaman Corp.	KAMN	41.00	3	3	4	1.05	55- 75	(35- 85%)	14.7	1.8	2.78	.72	58	9/30	.62	.57	3/31	.18	.16	YES						
346	Kansas City South'n	KSU	78.59	4	3	5	1.20	125- 185	(60-135%)	16.3	1.7	4.83	1.32	70	12/31	1.23	1.28	6/30	.33	.33	YES						
2109	Kate Spade & Co.	KATE	15.64	3	3	4	1.45	35- 45	(125-190%)	23.0	NIL	.88	NIL	60	9/30	.06	NIL	12/31	NIL	NIL	YES						
1921	Kellogg	K	71.40	3	1	2	.65	75- 90	(5- 25%)	20.2	2.9	3.54	2.08	10	9/30	.85	.94	12/31	.50	.49	YES						
1642	Kelly Services 'A'	(ND) KELYA	16.68	3	3	4	1.20	20- 30	(20- 80%)	15.3	1.2	1.09	.20	17	12/31	◆.88	.44	12/31	.05	.05	YES						
2559	Kemper Corp.	KMPR	25.55	3	3	2	.95	40- 60	(55-135%)	9.8	3.8	2.60	.96	57	12/31	◆.09	1.02	3/31	◆.24	.24	YES						
1251	Kennametal Inc.	KMT	17.56	5	3	3	1.35	35- 50	(100-185%)	14.6	4.6	1.20	.80	89	12/31	.14	.52	3/31	.20	.18	YES						
1038	Keurig Green Mountain	(ND) GMCR	89.49	-	4	-	.95	75- 125	(N- 40%)	28.6	1.5	3.13	1.30	24	12/31	.69	.82	3/31	▲.325	.288	YES						
2516	KeyCorp	KEY	10.64	3	3	3	1.15	12- 18	(15- 70%)	9.9	3.2	1.08	.34	54	12/31	.27	.28	3/31	.075	.065	YES						
1153	Kimball Int'l	(ND) KBAL	10.41	-	3	-	NMF	13- 19	(25- 85%)	17.4	2.1	.60	.22	12	12/31	.17	NIL	6/30	◆.055	.05	YES						
1195	Kimberly-Clark	KMB	130.79	▲1	1	3	.65	115- 140	(N- 5%)	29.7	2.7	4.41	3.52	5	12/31	.91	d.18	3/31	.88	.84	YES						
1532	Kimco Realty	KIM	27.02	3	3	3	1.05	25- 35	(N- 30%)	30.7	3.8	.88	1.04	28	12/31	.87	.14	6/30	.255	.24	YES						
2245	Kinder Morgan Inc.	KMI	14.61	-	3	-	1.10	35- 55	(140-275%)	40.6	3.4	.36	.50	74	12/31	d.29	.08	12/31	.51	.44	YES						
2009	King Digital Entertain.	KING	17.96	-	4	-	NMF	16- 25	(N- 40%)	10.5	NIL	1.71	NIL	46	9/30	.45	.45	12/31	NIL	NIL	YES						
1571	Kinross Gold	KGC	2.43	▲4	4	3	1.05	1- 2	(N- NMF)	NIL	NIL	d.08	NIL	90	9/30	d.02	.06	12/31	NIL	NIL	YES						
335	Kirby Corp.	KEX	52.93	4	3	4	1.15	85- 125	(60-135%)	16.1	NIL	3.29	NIL	88	12/31	.94	1.19	12/31	NIL	NIL	YES						
1427	Knight Transportation	KNX	26.24	4	3	5	1.05	35- 50	(35- 90%)	19.4	0.9	1.35	.24	65	12/31	.36	.40	3/31	◆.06	.06	YES						
1420	Knoll Inc.	KNL	18.14	3	3	4	1.15	25- 40	(40-120%)	11.3	3.3	1.61	.60	82	9/30	.37	.33	3/31	◆.15	.12	YES						
954	Knowles Corp.	KN	11.88	-	3	-	NMF	25- 35	(110-195%)	12.9	NIL	.92	NIL	81	9/30	.16	.38	12/31	NIL	NIL	YES						
2665	Kohl's Corp.	KSS	41.40	4	2	4	.90	65- 90	(55-115%)	10.0	4.6	4.16	1.92	71	10/31	.63	.70	12/31	.45	.39	YES						
433	Korea Fund	KF	29.84	-	3	2	1.00	45- 70	(35-135%)	NMF	NIL	NMF	NIL	-	6/30	44.80(q)	47.33(q)	12/31	NIL	NIL	YES						
1643	Korn/Ferry Int'l	(ND) KFY	27.79	▼3	3	1	1.30	40- 60	(45-115%)	13.4	1.4	2.07	.40	17	10/31	.51	.50	3/31	.10	.10	YES						
1922	Kraft Heinz Co.	(ND) KHC	71.51	-	2	-	NMF	70- 95	(N- 35%)	26.8	3.2	2.67	2.30	10	9/30	.44	NA	3/31	▲.575	.18	YES						
365	Krispy Kreme	KKD	13.23	3	3	4	1.15	20- 35	(50-165%)	14.9	NIL	.89	NIL	11	10/31	.19	.18	12/31	NIL	NIL	YES						
1950	Kroger Co.	KR	36.73	1	2	2	.80	40- 55	(10- 50%)	16.8	1.3	2.19	.46	24	10/31	.43	.35	3/31	.105	.093	YES						
568	Kronos Worldwide	KRO	4.62	4	3	2	1.60	12- 18	(160-290%)	27.2	13.0	.17	.60	56	9/30	d.10	.28	12/31	.15	.15	YES						
461	Kulicke & Soffa	(ND) KLIC	11.20	3	4	4	1.25	13- 20	(15- 80%)	22.4	NIL	.50	NIL	41	12/31	.10											
1984	Kyocera Corp. ADR(g)	KYO	38.53	4	2	3	.95	70- 95	(80-145%)	19.4	2.2	1.99	.86	78	12/31	.20	.69	12/31	.405	.329	YES						
2217	L Brands	LB	82.31	2	2	3	1.00	75- 110	(N- 35%)	20.7	2.9	3.98	2.40	75	10/31	.55	.44	3/31	▲.60	.50	YES						
715	L-3 Communic.	LLL	118.15	3	2	4	1.00	115- 155	(N- 30%)	15.7	2.4	7.51	2.80	29	12/31	2.16	2.35	3/31	.70	.65	YES						
994	LKQ Corp.	(ND) LKQ	24.19	2	3	2	1.00	45- 65	(85-170%)	15.5	NIL	1.56	NIL	5													

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NAME OF STOCK		Ticker Symbol						Beta										Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago		
1369	Mellanox Technologies	(ND)	MLNX	43.74	3	4	4	.95	50- 85 (15- 95%)	22.3	NIL	1.96	NIL	45	12/31	.90	d.10	12/31	NIL	NIL	YES				
626	Men's Wearhouse	(ND)	MENT	16.58	3	3	3	.95	NAME CHANGED TO TAILORED BRANDS	20.7	1.3	.80	.22	26	10/31	.12	.18	3/31	.055	.105	YES				
2657	Mentor Graphics	(ND)	MRK	49.16	3	1	4	.80	25- 35 (50-110%)	13.3	3.7	3.70	1.84	35	12/31	.93	.87	3/31	▲.46	.45	YES				
768	Merck & Co.	(ND)	MCY	49.03	▲3	2	5	.70	60- 70 (20- 40%)	17.6	5.1	2.78	2.48	6	12/31	◆.52	d.13	3/31	◆.62	.618	YES				
1406	Mercury Systems	(ND)	MRCY	17.36	3	4	2	.95	55- 80 (15- 75%)	22.8	NIL	.76	NIL	64	12/31	.17	.12	12/31	NIL	NIL	YES				
2377	Meredith Corp.	(ND)	MDP	38.57	3	3	4	1.05	17- 30 (45-105%)	12.0	5.1	3.21	1.98	73	12/31	.72	.87	3/31	▲.495	.458	YES				
223	Meridian Bioscience	(ND)	VIVO	19.43	3	3	2	.90	25- 40 (30-105%)	21.6	4.1	.90	.80	4	12/31	.21	.19	3/31	.20	.20	YES				
998	Meritor, Inc.	(ND)	MTOR	6.53	4	4	3	1.90	20- 35 (205-435%)	4.0	NIL	1.65	NIL	59	12/31	.33	.35	12/31	NIL	NIL	YES				
2460	Meritage Homes	(ND)	MTH	29.34	3	3	3	1.40	60- 90 (105-205%)	8.1	NIL	3.61	NIL	47	12/31	1.26	1.19	12/31	NIL	NIL	YES				
570	Methanex Corp.	(ND)	MEOH	25.95	4	3	3	1.50	75- 110 (190-325%)	11.2	4.2	2.31	1.10	56	12/31	.16	.85	3/31	.275	.25	YES				
1337	Methode Electronics	(ND)	MEI	25.14	3	3	3	1.40	40- 55 (60-120%)	10.9	1.6	2.31	.40	63	10/31	.54	.66	3/31	.09	.09	YES				
2032	MetLife Inc.	(ND)	MET	37.16	4	3	3	1.35	55- 80 (50-115%)	6.3	4.4	5.92	1.64	79	12/31	◆1.23	1.38	3/31	.375	.35	YES				
1952	Metro Inc.	(TSE)	MRU.TO	41.05	1	2	3	.55	30- 45 (N- 10%)	18.7	1.4	2.20	.56	24	12/31	.56	.43	3/31	▲.14	.117	YES				
127	Mettler-Toledo Int'l	(ND)	MTD	307.00	▼2	3	3	1.15	280- 420 (N- 35%)	23.7	NIL	12.98	NIL	55	12/31	◆4.44	4.17	12/31	NIL	NIL	YES				
434	Mexico Fund	(ND)	MXF	15.19	-	4	2	1.10	20- 35 (30-130%)	NMF	0.7	NMF	.10	-	10/31	20.66(q)	26.67(q)	12/31	NIL	NIL	YES				
2657	Michael Kors Hldgs.	(ND)	KORS	50.23	3	3	5	1.00	75- 115 (50-130%)	11.1	NIL	4.54	NIL	60	12/31	1.59	1.48	12/31	NIL	NIL	YES				
2186	Michels Cos. (The)	(ND)	MIK	20.93	-	3	-	NMF	35- 50 (65-140%)	11.4	NIL	1.83	NIL	66	10/31	.37	.31	12/31	NIL	NIL	YES				
2241	Microchip Technology	(ND)	MCHP	41.26	3	2	3	1.10	60- 80 (45- 95%)	14.5	3.5	2.85	1.44	45	12/31	◆.64	.64	3/31	◆.359	.357	YES				
1371	Micron Technology	(ND)	MU	9.98	4	3	3	1.70	17- 25 (70-150%)	13.3	NIL	.75	NIL	45	11/30	.19	.84	12/31	NIL	NIL	YES				
2587	Microsoft Corp.	(ND)	MSFT	49.28	2	1	2	1.00	65- 75 (30- 50%)	17.5	2.9	2.81	1.44	26	12/31	.78	.77	3/31	.36	.31	YES				
1720	Middleby Corp. (The)	(ND)	MIDD	83.34	2	3	2	1.15	45- 145 (15- 75%)	18.7	NIL	4.45	NIL	37	9/30	1.01	1.05	12/31	NIL	NIL	YES				
1787	Middlesex Water	(ND)	MSEX	28.56	3	2	3	.70	25- 35 (N- 25%)	22.5	2.8	1.27	.80	13	9/30	.41	.42	3/31	.199	.193	YES				
1157	Miller (Herman)	(ND)	MLHR	23.41	3	3	3	1.20	40- 60 (70-155%)	10.9	2.5	2.14	.59	12	11/30	.57	.51	3/31	.148	.14	YES				
224	Mindray Medical (ADS)	(ND)	MR	27.25	-	3	-	.90	50- 70 (85-155%)	15.8	1.8	1.73	.50	4	9/30	.43	.39	12/31	NIL	NIL	YES				
571	Minerals Techn.	(ND)	MTX	43.30	4	3	4	1.30	70- 100 (60-130%)	9.7	0.5	4.45	.20	56	12/31	◆1.00	1.22	3/31	.05	.05	YES				
404	Mobile Mini	(ND)	MINI	25.35	3	3	3	1.30	45- 70 (80-175%)	17.0	3.2	1.49	.82	38	12/31	◆.41	.37	3/31	▲.206	.187	YES				
999	Modine Mfg.	(ND)	MOD	8.06	4	4	3	1.55	12- 20 (50-150%)	10.3	NIL	.78	NIL	59	12/31	.17	.20	12/31	NIL	NIL	YES				
1158	Mohawk Inds.	(ND)	MHK	153.70	2	3	2	1.20	215- 315 (40-105%)	13.5	NIL	11.41	NIL	12	9/30	2.98	2.44	12/31	NIL	NIL	YES				
1974	Molson Coors Brewing	(ND)	TAP	83.87	3	2	2	.90	60- 85 (N- N/A)	19.3	2.0	4.35	1.64	8	9/30	.09	d.19	12/31	.41	.37	YES				
1926	Mondelez Int'l	(ND)	MDLZ	37.05	2	2	2	1.05	40- 55 (10- 50%)	18.8	1.9	1.97	.72	10	12/31	.46	.47	6/30	◆.17	.15	YES				
2127	Monro Muffler Brake	(ND)	MMRO	62.88	2	3	2	.75	85- 125 (35-100%)	27.7	1.0	2.27	.60	18	12/31	.46	.49	12/31	.15	.13	YES				
2449	Monsanto Co.	(ND)	MON	91.70	4	2	3	1.05	135- 185 (45-100%)	17.3	2.4	5.30	2.16	50	11/30	d.11	.47	6/30	.54	.49	YES				
1975	Monster Beverage	(ND)	MNST	118.91	2	3	2	.85	120- 175 (N- 45%)	32.2	NIL	3.69	NIL	8	9/30	.84	.70	12/31	NIL	NIL	YES				
★ ★	2393 Monster Worldwide	(ND)	MWW	4.22	4	5	2	1.55	6- 11 (40-160%)	12.4	NIL	.34	NIL	7	9/30	.10	d.02	12/31	NIL	NIL	YES				
453	Moody's Corp.	(ND)	MCO	80.03	▼3	3	3	1.15	105- 160 (30-100%)	16.2	1.8	4.95	1.48	9	12/31	◆1.09	1.12	3/31	▲.37	.34	YES				
2657	1718 Moog Inc. 'A'	(ND)	MOGA	40.41	3	3	3	1.20	75- 115 (85-185%)	10.7	NIL	3.76	NIL	29	12/31	.71	.86	12/31	NIL	NIL	YES				
7804	Morgan Stanley	(ND)	MS	22.93	3	3	3	1.60	60- 90 (160-290%)	6.8	2.6	3.39	.60	72	12/31	.39	.47	3/31	.15	.10	YES				
1603	Mosaic Company	(ND)	MOS	23.86	▼5	3	4	1.30	60- 90 (150-275%)	7.0	4.9	3.42	1.18	92	9/30	.45	.54	3/31	.275	.25	YES				
956	Motorola Solutions	(ND)	MSI	62.24	3	1	1	.90	80- 100 (30- 60%)	18.6	2.7	3.34	1.70	81	9/30	.82	.62	3/31	▲.41	.34	YES				
2187	Movado Group	(ND)	MOV	24.51	3	3	3	1.30	50- 75 (105-205%)	10.7	1.8	2.29	.44	66	10/31	.92	.87	12/31	.11	.10	YES				
735	Mueller Inds.	(ND)	MLI	25.55	3	3	4	1.10	35- 55 (35-115%)	12.4	1.2	2.06	.30	89	12/31	.25	.32	12/31	.075	.075	YES				
1721	Mueller Water Prod.	(ND)	MWA	8.12	3	4	3	1.45	11- 19 (35-135%)	18.0	1.0	.45	.08	37	12/31	◆.04	.03	3/31	.02	.018	YES				
511	Murphy Oil Corp.	(ND)	MUR	17.86	5	3	3	1.45	50- 70 (180-290%)	NMF	7.8	d6.54	1.40	87	12/31	d3.39	2.48	3/31	◆.35	.35	YES				
2188	Murphy USA Inc.	(ND)	MUSA	59.41	3	3	3	.90	70- 100 (20- 70%)	15.8	NIL	3.76	NIL	66	12/31	◆.69	2.13	12/31	NIL	NIL	YES				
1762	Myers Inds.	(ND)	MYE	10.86	4	3	3	1.15	17- 25 (55-130%)	11.3	5.2	.96	.56	58	9/30	.01	d.11	3/31	.135	.13	YES				
★ ★	1623 Mylan N.V.	(ND)	MYL	50.74	2	3	4	1.20	80- 120 (60-135%)	10.8	NIL	4.72	NIL	35	9/30	.83	1.26	12/31	NIL	NIL	YES				
839	Myriad Genetics	(ND)	MYGN	34.60	2	3	1	.85	50- 70 (45-100%)	20.6	NIL	1.68	NIL	42	12/31	.41	.32	12/31	NIL	NIL	YES				
1114	NCI Bldg. Sys.	(ND)	NCS	9.46	3	4	3	1.35	20- 35 (110-270%)	15.8	NIL	.60	NIL	27	10/31	.25	.19	12/31	NIL	NIL	YES				
1338	NCR Corp.	(ND)	NCR	19.57	▼4	3	3	1.30	45- 70 (130-260%)	7.2	NIL	2.72	NIL	63	12/31	◆.92	.88	12/31	NIL	NIL	YES				
736	NN Inc.	(ND)	NNBR	11.06	4	4	3	1.80	30- 45 (170-305%)	7.8	2.5	1.42	.28	89	9/30	.31	.36	3/31	.07	.07	YES				
848	1227 NRG Energy	(ND)	NRG	10.84	5	3	4	1.10	15- 25 (40-130%)	36.1	5.4	.30	.58	85	9/30	.18	.48	12/31	.145	.14	YES				
1131	NVR, Inc.	(ND)	NVR	1550.13	1	2	3	.95	1480-2000 (N- 30%)	14.9	NIL	103.92	NIL	47	12/31	31.92	23.24	12/31	NIL	NIL	YES				
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PAGE NUMBERS		RANKS										Industry Rank										Do Options Trade?				
Bold type refers to Ratings and Reports; italics to Selection & Opinion		Recent Price		Safety		Technical		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS								
NAME OF STOCK		Ticker Symbol	Timeliness			Beta												Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago			
1039	1507 New York Community	NYCB	15.46	3	3	4	.90	16- 25	(5- 60%)	13.1	4.4	1.18	.68	39	12/31	.31	.30	3/31	▼.17	.25	YES					
	2385 New York Times	NYT	12.25	3	3	3	1.15	15- 25	(20-105%)	20.1	1.3	.61	.16	84	12/31	♦.31	.22	3/31	.04	.04	YES					
	1197 Newell Rubbermaid	NWL	34.27	-	3	-	1.15	40- 60	(15- 75%)	31.2	2.2	1.10	.76	5	12/31	d.30	.18	12/31	.19	.17	YES					
	535 Newfield Exploration	NFX	23.80	4	3	3	1.65	35- 50	(45-110%)	NMF	NIL	d.23	NIL	95	9/30	.21	.52	12/31	NIL	NIL	YES					
	572 NewMarket Corp.	NEU	324.89	3	3	4	1.05	400- 600	(25- 85%)	17.9	2.0	18.16	6.40	56	12/31	4.50	4.17	3/31	▲1.60	1.40	YES					
	1572 Newmont Mining	NEM	24.30	4	3	5	.90	19- 30	(N- 25%)	34.2	0.4	.71	.10	90	9/30	.22	.42	12/31	.025	.025	YES					
2386	129 Newport Corp.	NDP	14.46	4	3	3	1.45	25- 35	(75-140%)	15.2	NIL	.95	NIL	55	9/30	.18	.23	12/31	NIL	NIL	YES					
	2386 News Corp. 'A'	NWSA	10.49	4	3	3	1.25	20- 35	(90-235%)	19.8	1.9	.53	.20	84	12/31	♦.15	.24	12/31	▲.10	NIL	YES					
	148 NextEra Energy	NEE	115.35	2	2	5	.70	115- 155	(N- 35%)	18.9	3.1	6.10	3.63	44	12/31	1.10	2.00	12/31	.77	.725	YES					
	454 Nielsen Hldgs. plc	NLSN	45.13	2	2	3	.90	65- 85	(45- 90%)	16.1	2.5	2.81	1.12	9	9/30	.69	.66	12/31	.28	.25	YES					
	NAME CHANGED TO NIELSEN HLDGS. PLC																									
	1427	2159 NIKE, Inc. 'B'	NKE	55.68	1	1	3	.80	65- 85	(15- 55%)	25.3	1.1	2.20	.64	40	11/30	.45	.37	3/31	▲.16	.12	YES				
2664	627 1407 Nimble Storage	NMBL	5.76	4	4	3	1.20	19- 30	(230-420%)	NMF	NIL	d.46	NIL	64	10/31	d.14	d.15	12/31	NIL	NIL	YES					
	547 NiSource Inc.	NI	21.24	-	3	-	NMF	18- 25	(N- 20%)	20.0	2.9	1.06	.62	20	9/30	.05	.10	3/31	.155	.26	YES					
	108 Nissan Motor ADR(g)	NSANY	17.43	3	3	2	1.00	20- 30	(15- 70%)	7.5	3.7	2.32	.65	67	12/31	♦.45	.41	12/31	.342	.28	YES					
	2428 Noble Corp. plc	NE	7.25	4	3	3	1.50	15- 25	(105-245%)	5.2	8.3	1.39	.60	94	12/31	♦.52	.47	3/31	.15	.375	YES					
	2406 Noble Energy	NBL	27.86	4	3	3	1.35	50- 80	(80-185%)	NMF	1.4	d.29	.40	96	9/30	d.67	1.12	3/31	▼.10	.18	YES					
	959 Nokia Corp. ADR	NOK	5.88	3	3	3	1.25	8- 12	(35-105%)	15.5	2.7	.38	.16	81	9/30	.09	.11	12/31	NIL	NIL	YES					
461	1722 Nordson Corp.	NDSN	59.03	3	3	3	1.30	65- 95	(10- 60%)	15.3	1.7	3.85	.98	37	10/31	.95	1.13	3/31	.24	.44	YES					
	2145 Nordstrom, Inc.	JWN	50.34	4	3	4	1.00	70- 100	(40-100%)	14.5	3.1	3.46	1.56	71	10/31	.57	.73	12/31	.37	.33	YES					
	1040 347 Norfolk Southern	NSC	71.42	-	2	-	1.05	105- 140	(45- 95%)	12.8	3.3	5.60	2.36	70	12/31	1.20	1.64	3/31	.59	.59	YES					
	787 Northern Trust Corp.	NTRS	57.99	3	3	2	1.05	80- 120	(40-105%)	14.0	2.5	4.14	1.44	49	12/31	.99	.98	6/30	.36	.33	YES					
	1228 Northrop Power	NPI.TO	18.50	3	3	2	.85	20- 25	(10- 35%)	23.7	5.8	.78	1.08	85	9/30	d.51	d.11	12/31	.27	.27	YES					
	719 Northrop Grumman	NOC	187.32	2	1	3	.95	145- 175	(N- N/A)	17.6	1.7	10.64	3.20	29	12/31	2.49	2.48	12/31	.80	.70	YES					
1508	Northwest Bancshares	NWBK	12.10	3	2	1	.75	14- 20	(15- 65%)	16.4	5.0	.74	.60	39	12/31	.16	.19	3/31	▲.15	.14	YES					
	548 Northwest Nat. Gas	NWN	53.15	3	1	3	.65	50- 60	(N- 15%)	26.3	3.5	2.02	1.87	20	9/30	d.24	d.32	3/31	.468	.465	YES					
	2234 NorthWestern Corp.	NWE	58.19	2	3	4	.70	45- 65	(N- 10%)	17.8	3.4	3.27	2.00	36	9/30	.51	.77	12/31	.48	.40	YES					
	2315 Norwegian Cruise Line	NCLH	39.18	2	3	1	1.15	60- 90	(55-130%)	13.6	NIL	2.89	NIL	21	9/30	1.09	.97	12/31	NIL	NIL	YES					
	1625 Novartis AG ADR	NVS	72.62	3	1	3	.85	105- 125	(45- 70%)	18.4	3.7	3.94	2.66	35	12/31	.44	.62	12/31	NIL	NIL	YES					
	1626 Novo Nordisk ADR(g)	NVO	46.58	1	2	2	.85	70- 95	(50-105%)	20.5	1.9	2.27	.90	35	12/31	.47	.41	12/31	NIL	NIL	YES					
462	1013 Nu Skin Enterprises	NUS	32.94	4	4	3	1.10	65- 105	(95-220%)	10.4	4.5	3.17	1.48	52	9/30	.28	1.12	12/31	.35	.345	YES					
	2588 Nuance Commun.	NUAN	16.15	▲	2	3	1.10	25- 35	(55-115%)	NMF	NIL	.05	NIL	26	12/31	♦.04	d.16	12/31	NIL	NIL	YES					
	746 Nucor Corp.	NUE	38.91	4	3	4	1.20	65- 100	(65-155%)	17.2	3.9	2.26	1.50	93	12/31	.46	.65	3/31	▲.375	.373	YES					
	1928 NutriSystem Inc.	NTRI	18.47	3	3	2	1.00	25- 40	(35-115%)	17.4	3.8	1.06	.70	10	9/30	.25	.17	12/31	.175	.175	YES					
	190 NuVasive, Inc.	NUVA	41.74	2	3	1	1.20	60- 85	(45-105%)	46.4	NIL	.90	NIL	3	9/30	.24	d.04	12/31	NIL	NIL	YES					
	1213 Nuveen Muni Value Fund	NUV	10.40	-	1	3	.40	9- 11	(N- 5%)	NMF	3.8	NMF	.39	-	10/31	10.20(q)	10.21(q)	12/31	.13	.139	YES					
915	1372 NVIDIA Corp.	NVDA	25.49	1	3	2	1.10	25- 40	(N- 55%)	20.1	1.8	1.27	.46	45	10/31	.44	.31	12/31	▲.115	.085	YES					
	915 OGE Energy	OGE	26.28	3	2	4	.95	35- 45	(35- 70%)	14.3	4.4	1.84	1.16	19	9/30	.90	.94	3/31	.275	.25	YES					
	2449 OM Group	OMG	SEE FINAL SUPPLEMENT - PAGE 2449																							
	2461 130 OSI Systems	OSIS	54.69	3	3	2	.95	85- 125	(55-130%)	20.9	NIL	2.62	NIL	55	12/31	.01	.89	12/31	NIL	NIL	YES					
	2407 Oasis Petroleum	OAS	4.95	5	5	3	2.00	12- 20	(140-305%)	NMF	NIL	d.40	NIL	96	9/30	.09	.52	12/31	NIL	NIL	YES					
	512 Occidental Petroleum	OXY	65.22	4	2	4	1.25	90- 120	(40- 85%)	NMF	4.6	d.43	3.00	87	12/31	♦.17	.72	3/31	.75	.72	YES					
1040	2429 Oceanenergy Int'l	OII	28.59	4	3	3	1.30	50- 75	(75-160%)	13.7	3.8	2.09	1.08	94	9/30	.70	1.16	12/31	.27	.27	YES					
	1422 Office Depot	ODP	4.92	-	4	-	1.45	7- 12	(40-145%)	9.3	NIL	.53	NIL	82	9/30	.16	.10	12/31	NIL	NIL	YES					
	2430 Oil States Int'l	OIS	23.10	-	3	-	NMF	30- 40	(30- 75%)	NMF	NIL	d.32	NIL	94	9/30	.11	1.07	12/31	NIL	NIL	YES					
	325 Old Dominion Freight	ODFL	61.00	3	3	4	1.05	75- 110	(25- 80%)	16.3	NIL	3.75	NIL	65	12/31	♦.85	.81	12/31	NIL	NIL	YES					
	788 Old Nat'l Bancorp	ONB	11.25	3	3	3	1.00	14- 20	(25- 80%)	10.8	4.6	1.04	.52	49	12/31	.27	.25	3/31	▲.13	.12	YES					
	769 Old Republic	ORI	17.55	3	3	2	1.10	16- 25	(N- 40%)	14.2	4.2	1.24	.74	6	12/31	.29	.21	12/31	.185	.183	YES					
1604	Olin Corp.	OLN	12.90	-	3	-	1.20	35- 50	(170-230%)	15.7	6.2	.82	.80	92	12/31	d.37	.16	3/31	.20	.20	YES					
	226 Omniceil, Inc.	OMCL	27.47	2	3	3	1.05	40- 55	(45-100%)	28.0	NIL	.98	NIL	4	12/31	♦.21	.25	12/31	NIL	NIL	YES					
	2395 Omnicom Group	OMC	71.62	2	2	3	1.00	90- 135	(25- 90%)	15.4	3.0	4.64	2.15	7	12/31	♦.135	1.30	6/30	.50	.50	YES					
	2653 2010 Omnivision Techn.	OVTI	SEE FINAL SUPPLEMENT - PAGE 2653																							
	1645 ON Assignment	ASGN	31.58	1	3	1	1.45	45- 70	(40-120%)	17.1	NIL	1.85	NIL	17	9/30	.47	.41	12/31	NIL	NIL	YES					
	462 1374 ON Semiconductor	ON	7.08	3	3	3	1.40	18- 25	(155-255%)	8.0	NIL	.89	NIL	45	12/31	♦.19	.17	12/31	NIL	NIL	YES					
1428	2633 1-800-FLOWERS.COM	FLWS	7.18	3	4	4	1.25	15- 25	(110-250%)	12.0	NIL	.60	NIL	30	12/31	.92	.68	12/31	NIL	NIL	YES					
	605 ONEOK Inc.	OKE	20.63	3	3	3																				

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PAGE NUMBERS		RANKS										Industry Rank										Do Options Trade?	
Ratings and Reports; italics to Selection & Opinion		Recent Price		Safety		Technical		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings. 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS					
		NAME OF STOCK	Ticker Symbol	Timeliness		Beta								Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago				
169	PACCAR Inc.	(NDQ)	PCAR	49.84	4	3	4	1.15	70- 105	(40-110%)	12.5	4.4	3.98	2.20	83	12/31	.98	1.11	3/31	▲1.64	1.22	YES	
1182	Packaging Corp.	(NDQ)	PKG	49.84	3	3	3	1.05	75- 115	(50-130%)	10.3	4.8	4.85	2.40	51	12/31	1.07	1.00	3/31	.55	.40	YES	
2591	Palo Alto Networks		PANW	118.06	1	3	1	.95	205- 305	(75-160%)	NMF	NIL	d1.20	NIL	26	10/31	d.45	d.38	12/31	NIL	NIL	YES	
1573	Pan Amer. Silver	(NDQ)	PAAS	8.20	4	4	5	1.15	8- 14	(N- 70%)	NMF	2.4	d.37	.20	90	9/30	d.06	d.09	12/31	.05	.125	YES	
1985	Panasonic Corp.(g)	(FNV)	PCRFY	7.47	4	3	3	1.00	20- 30	(170-300%)	8.7	2.3	.86	.17	78	9/30	.19	.16	12/31	.081	.07	YES	
1258	2635 Pandora Media		P	7.97	4	5	2	1.20	15- 30	(90-275%)	NMF	NIL	d.44	NIL	30	9/30	d.40	d.01	12/31	NIL	NIL	YES	
	367 Panera Bread Co.	(NDQ)	PNRA	184.72	▲2	2	3	.85	210- 285	(15- 55%)	29.2	NIL	6.32	NIL	11	12/31	▲1.88	1.87	12/31	NIL	NIL	YES	
	368 Papa John's Int'l	(NDQ)	PZZA	46.44	3	2	3	.65	55- 75	(20- 60%)	20.0	1.5	2.32	.70	11	9/30	.45	.39	3/31	.175	.14	YES	
	1629 PAREXEL Int'l	(NDQ)	PRXL	58.36	2	3	2	1.05	70- 110	(20- 90%)	19.5	NIL	3.00	NIL	35	12/31	.73	.70	12/31	NIL	NIL	YES	
	573 Park Electrochemical	(NDQ)	PKE	15.06	4	3	4	1.15	15- 25	(N- 65%)	16.0	2.7	.94	.40	56	11/30	.20	.10	3/31	.10	.10	YES	
789	Park National	(ASE)	PRK	82.90	3	2	2	.90	85- 110	(5- 36%)	15.0	4.5	5.51	3.76	49	12/31	1.36	1.58	3/31	.94	.94	YES	
1764	Park-Ohio	(NDQ)	PKOH	25.15	4	4	3	1.70	60- 105	(140-315%)	5.6	2.0	4.49	.50	58	9/30	1.06	1.00	3/31	.125	.125	YES	
1765	Parker-Hannifin	(NDQ)	PH	99.73	4	2	4	1.25	110- 150	(10- 50%)	16.0	2.5	6.25	2.52	58	12/31	1.52	1.84	3/31	.63	.63	YES	
2027	PartnerRe Ltd.	(NDQ)	PRE	140.35	—	3	—	.70	100- 150	(N- 5%)	14.6	2.0	9.64	2.80	32	12/31	▲3.74	5.26	3/31	▲.70	.70	YES	
2191	Party City Holdco	(NDQ)	PRTY	7.70	—	4	—	NMF	14- 20	(80-160%)	7.6	NIL	1.01	NIL	66	9/30	d.37	NA	12/31	NIL	NIL	YES	
1230	Pattern Energy Group	(NDQ)	PEGI	16.11	4	3	3	1.20	20- 30	(25- 85%)	55.6	9.2	.29	1.49	85	9/30	d.40	d.06	3/31	▲.372	.335	YES	
228	Patterson Cos.	(NDQ)	PDCO	41.28	▲2	2	4	.90	60- 80	(45- 95%)	18.2	2.3	2.27	.96	4	10/31	.43	.54	3/31	.22	.20	YES	
2615	Paychex, Inc.	(NDQ)	PAYX	46.66	2	1	2	.90	65- 80	(40- 70%)	21.7	3.8	2.15	1.77	1	11/30	.52	.47	3/31	.42	.38	YES	
2567	PayPal Holdings	(NDQ)	PYPL	32.70	—	2	—	NMF	35- 45	(5- 40%)	29.2	NIL	1.12	NIL	57	12/31	.30	NA	12/31	NIL	NIL	YES	
606	Pembina Pipeline Corp.	(TSX)	PPLTO	29.75	3	2	3	.85	45- 60	(50-100%)	24.4	6.2	1.22	1.83	74	9/30	.29	.20	12/31	.458	.435	YES	
2451	536 Pengrowth Energy	(NDQ)	PGH	12.81	3	3	3	1.20	30- 40	(135-210%)	16.0	NIL	.80	NIL	48	9/30	.19	.10	12/31	NIL	NIL	YES	
	2366 Penn Nat'l Gaming	(NDQ)	PENN	7.39	3	5	5	1.25	8- 16	(10-115%)	NMF	NIL	d.50	NIL	71	10/31	d.45	d.77	12/31	NIL	NIL	YES	
	2146 Penney (J.C.)	(NDQ)	JCP	17.11	3	4	3	1.35	20- 35	(15-105%)	NMF	5.1	d.30	.88	28	9/30	d.53	d.07	12/31	.21	.20	YES	
	1536 Penn. R.E.I.T.	(NDQ)	PEI	30.27	3	3	3	1.25	65- 95	(115-215%)	7.3	3.8	4.13	1.15	18	9/30	.96	.85	3/31	▲.26	.22	YES	
	2129 Penske Auto	(NDQ)	PAG	45.20	3	3	3	1.15	80- 120	(75-165%)	11.5	2.9	3.94	1.32	58	12/31	1.13	.70	3/31	▲.33	.32	YES	
2653	1509 People's United Fin'l	(NDQ)	PBCT	14.54	3	2	2	.90	18- 25	(25- 70%)	16.2	4.7	.90	.68	39	12/31	.23	.22	3/31	.168	.165	YES	
	2130 Pep Boys	(NDQ)	PBY	26.20	—	3	—	.75	20- 35	(N- 35%)	23.4	4.1	1.12	1.08	44	9/30	.36	.31	12/31	.27	.27	YES	
	150 Pepco Holdings	(NDQ)	POM	98.28	3	1	3	1.70	125- 140	(25- 40%)	20.4	2.9	4.81	2.87	8	9/30	1.35	1.32	3/31	.703	1.31	YES	
	1977 PepsiCo, Inc.	(NDQ)	PEP	42.47	2	3	2	1.10	55- 80	(30- 90%)	16.0	0.7	2.66	.28	55	12/31	▲.86	.85	6/30	.07	.07	YES	
	132 PerkinElmer Inc.	(NDQ)	PKI	138.77	3	4	4	1.80	190- 290	(35-110%)	15.9	0.4	8.74	.50	35	9/30	1.76	1.40	12/31	.125	.105	YES	
463	Perrigo Co. plc	(NDQ)	PRGO	16.91	4	4	4	1.35	35- 50	(105-195%)	8.4	NIL	2.01	NIL	60	10/31	.16	.03	12/31	NIL	NIL	YES	
463	2113 Perry Ellis Int'l	(NDQ)	PERY	15.77	3	3	3	.90	17- 25	(10- 60%)	14.7	4.7	1.07	.74	15	12/31	.24	.24	3/31	.18	.17	YES	
970	PetMed Express	(NDQ)	PETS	2.99	5	4	1	1.65	20- 30	(570-905%)	NMF	NIL	d.44	NIL	87	9/30	d.18	d.32	12/31	NIL	NIL	YES	
513	Petroleo Brasileiro ADR	(NDQ)	PBR	29.10	—	1	—	.85	40- 45	(35- 55%)	19.3	4.1	1.51	1.20	35	12/31	.10	.19	3/31	▲.30	.28	YES	
2658	1631 Pfizer, Inc.	(NDQ)	PFE	26.74	3	4	2	1.10	25- 40	(N- 50%)	19.4	NIL	1.38	NIL	15	9/30	.32	.45	12/31	NIL	NIL	YES	
	971 Pharmacia Corp.	(NDQ)	PMC	24.45	3	3	5	1.15	35- 50	(45-105%)	22.4	3.9	1.09	.95	78	9/30	.31	d.39	12/31	NIL	NIL	YES	
	1986 Philips Electronics NV(g)	(NDQ)	PHG	90.02	3	2	3	.80	80- 105	(N- 15%)	20.3	4.5	4.43	4.08	14	12/31	▲.80	1.03	3/31	1.02	1.00	YES	
	1991 Philip Morris Int'l	(NDQ)	PM	75.44	3	3	2	1.30	85- 125	(15- 65%)	10.1	3.2	7.50	2.39	87	12/31	1.20	2.05	3/31	▲.56	.50	YES	
	514 Phillips 66	(NDQ)	PSX	11.09	2	4	3	1.10	18- 30	(60-170%)	13.0	NIL	.85	NIL	41	10/31	.25	.08	12/31	NIL	NIL	YES	
1395	Photonics Inc.	(NDQ)	PLAB	59.14	—	2	—	.75	30- 45	(N- N%)	24.3	2.2	2.43	1.32	20	10/31	d.18	d.13	3/31	.33	.32	YES	
1252	549 Piedmont Natural Gas	(NDQ)	PNY	4.21	5	4	2	1.25	8- 13	(90-210%)	8.8	6.7	.48	.28	66	11/30	.13	.20	3/31	.07	.06	YES	
	2192 Pier 1 Imports	(NDQ)	PIR	22.10	3	3	5	1.20	25- 40	(15- 80%)	10.3	NIL	2.15	NIL	10	9/30	.53	.99	12/31	NIL	NIL	YES	
	1929 Pilgrim's Pride Corp.	(NDQ)	PPC	28.11	—	4	—	1.30	50- 80	(80-185%)	14.3	NIL	1.96	NIL	48	9/30	.36	.20	12/31	NIL	NIL	YES	
	2367 Pinnacle Entertain.	(NDQ)	PNK	39.89	2	3	3	.80	35- 50	(N- 25%)	19.8	2.6	2.01	1.02	10	9/30	.46	.41	3/31	.255	.235	YES	
	1930 Pinnacle Foods	(NDQ)	PF	68.48	3	1	3	.75	60- 70	(N- N%)	17.1	3.7	4.01	2.56	36	9/30	2.30	2.20	3/31	.625	.595	YES	
2237	Pinnacle West Capital	(NDQ)	PNW	111.29	3	3	3	1.45	140- 210	(25- 90%)	NMF	0.1	d1.01	.08	96	9/30	d.01	1.35	12/31	.04	.04	YES	
2408	Pioneer Natural Res.	(NDQ)	PXD	39.80	4	3	4	1.30	50- 75	(25- 90%)	11.5	NIL	3.47	NIL	72	12/31	▲.88	.77	12/31	NIL	NIL	YES	
1805	Piper Jaffray Cos.	(NDQ)	PJC	16.66	3	3	3	1.10	18- 25	(10- 50%)	9.3	4.5	1.80	.75	82	12/31	.48	.51	3/31	▲.188	.188	YES	
2664	1423 Pitney Bowes	(NDQ)	PBI	15.88	4	3	4	1.05	50- 85	(215-435%)	10.2	17.8	1.56	2.83	91	12/31	▲.24	.67	12/31	▲.70	.66	YES	
★	621 Plains All Amer. Pipe.	(NDQ)	PAA	13.97	—	3	—	NMF	30- 40	(115-185%)	20.2	NIL	.69	NIL	21	9/30	.10	NA	12/31	NIL	NIL	YES	
2316	Planet Fitness	(NDQ)	PLNT	34.43	3	3	3	1.05	60- 90	(75-160%)	13.4	1.8	2.56	.62	63	12/31	.49						



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PAGE NUMBERS		RANKS										Industry Rank										Do Options Trade?		
Bold type refers to Ratings and Reports; italics to Selection & Opinion		Recent Price		Timeliness		Safety		Technical		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS				
NAME OF STOCK		Ticker Symbol						Beta										Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	
	1558 Prudential Fin'l	PRU	63.59	▼4	3	2	1.30			90- 135	(40-110%)	6.6	4.4	9.64	2.80	79	9/30	2.40	2.46	3/31	◆.70	.58	YES	
	151 Public Serv. Enterprise	PEG	42.38		3	1	.75			45- 50	(5- 20%)	14.8	3.9	2.87	1.64	44	9/30	.87	.87	12/31	.39	.37	YES	
	1538 Public Storage	PSA	232.92	1	1	3	.75			215- 265	(N- 15%)	35.7	3.0	6.52	6.92	28	9/30	1.58	1.34	12/31	1.70	1.40	YES	
	1132 PulteGroup, Inc.	PHM	16.00	3	3	3	1.75			25- 40	(55-150%)	9.2	2.3	1.74	.36	47	12/31	.64	.58	3/31	▲.09	.08	YES	
	537 QEP Resources	QEP	10.93	5	3	3	1.55			16- 25	(45-130%)	NMF	0.7	d.57	.08	95	9/30	.12	.84	12/31	.02	.02	YES	
2033	840 QIAGEN N.V.	(NDQ) QGEN	20.53	3	3	1	1.05			30- 40	(45- 95%)	30.6	NIL	.67	NIL	42	12/31	.21	.11	12/31	NIL	NIL	YES	
	1376 QLogic Corp.	(NDQ) QLGC	11.96	4	3	4	1.05			13- 19	(10- 60%)	26.0	NIL	.46	NIL	45	12/31	.28	.25	12/31	NIL	NIL	YES	
	1377 Qorvo Inc.	(NDQ) QORVO	35.14							55- 80	(55-130%)	24.9	NIL	1.41	NIL	45	12/31	◆d.08	1.18	12/31	NIL	NIL	YES	
	576 Quaker Chemical	KWR	74.13	3	3	4	1.35			75- 115	(N- 55%)	16.3	1.7	4.56	1.28	56	9/30	1.08	1.18	3/31	.32	.30	YES	
849	961 Qualcomm Inc.	(NDQ) QCOM	43.61	4	1	4	.95			90- 110	(105-150%)	10.9	4.8	4.00	2.10	81	12/31	.97	1.34	3/31	.48	.42	YES	
2659	827 Quality Systems	(NDQ) QSII	13.50	3	3	4	.95			19- 30	(40-120%)	26.5	NIL	.51	NIL	16	12/31	.12	.11	6/30	▼NIL	.175	YES	
	1116 Quanex Bldg. Prod.	NX	16.73	3	3	1	1.40			20- 30	(20- 80%)	22.3	1.0	.75	.16	27	10/31	.29	.08	12/31	.04	.04	YES	
	1245 Quanta Services	PWR	17.54	5	3	3	1.20			40- 60	(130-240%)	10.7	NIL	1.64	NIL	80	9/30	.30	.61	12/31	NIL	NIL	YES	
	813 Quest Diagnostics	DGX	60.55	3	2	2	.90			85- 115	(40- 90%)	12.2	2.6	4.97	1.60	31	12/31	1.19	1.08	6/30	▲.40	.38	YES	
2661	538 Questar Corp.	STR	24.90							30- 35	(20- 40%)	19.2	3.5	1.30	.88	95	9/30	.18	.22	12/31	.21	.19	YES	
	814 Quintiles Transnational	Q	56.70	2	3	1	.85			75- 115	(30-105%)	15.9	NIL	3.56	NIL	31	9/30	.94	.65	12/31	NIL	NIL	YES	
	1723 RBC Bearings	(NDQ) ROLL	59.17	2	3	3	1.05			75- 115	(25- 95%)	17.8	NIL	3.32	NIL	37	12/31	.73	.62	12/31	NIL	NIL	YES	
	771 RLI Corp.	RLI	60.79	2	2	3	.85			40- 50	(N- 14%)	27.0	1.3	2.25	.76	6	12/31	.56	.71	3/31	◆.19	.18	YES	
	2431 RPC Inc.	RES	12.67	3	3	4	1.60			14- 20	(10- 60%)	NMF	NIL	d.68	NIL	94	12/31	d.18	.36	12/31	NIL	1.05	YES	
	577 RPM Int'l	RPM	38.12	2	3	3	1.10			55- 80	(45-110%)	14.6	2.9	2.61	1.10	56	11/30	.62	.52	3/31	.275	.24	YES	
	1818 Rackspace Hosting	RAX	16.82	3	3	3	1.25			60- 90	(255-435%)	15.7	NIL	1.07	NIL	22	9/30	.26	.18	12/31	NIL	NIL	YES	
2660	2114 Ralph Lauren	RL	83.70	4	3	4	1.10			170- 250	(105-200%)	11.4	2.6	7.33	2.20	60	12/31	◆2.27	2.41	3/31	.50	.45	YES	
	1378 Rambus Inc.	(NDQ) RMBS	11.76	3	4	5	1.55			17- 30	(45-155%)	19.0	NIL	.62	NIL	45	12/31	.16	.07	12/31	NIL	NIL	YES	
	2409 Range Resources Corp.	RRC	28.04	5	3	4	1.15			40- 55	(45- 95%)	NMF	0.6	d.48	.16	96	9/30	.03	.37	12/31	.04	.04	YES	
	1806 Raymond James Fin'l	RJF	42.40	3	3	2	1.25			60- 90	(40-110%)	13.3	1.9	3.18	.80	72	12/31	.73	.87	3/31	▲.20	.18	YES	
	1169 Rayonier Inc.	RYN	19.25							19- 30	(N- 55%)	56.6	5.2	.34	1.00	61	12/31	◆.08	.07	12/31	.25	.25	YES	
	722 Raytheon Co.	RTN	126.39	2	1	3	.85			110- 135	(N- 5%)	18.2	2.1	6.95	2.68	29	12/31	1.85	1.86	3/31	.67	.67	YES	
	2011 RealD Inc.	RDL	10.44							9- 16	(N- 55%)	33.7	NIL	.31	NIL	46	12/31	d.08	d.23	12/31	NIL	NIL	YES	
	1767 Realogy Holdings	RLGY	28.83	3	3	3	1.20			50- 70	(75-145%)	17.8	NIL	1.62	NIL	58	9/30	.74	.68	12/31	NIL	NIL	YES	
	1539 Realty Income Corp.	O	56.36	2	2	4	.75			55- 75	(N- 35%)	46.2	4.2	1.22	2.38	28	9/30	.26	.26	3/31	▲.588	.561	YES	
	2592 Red Hat, Inc.	RHT	61.60	1	3	1	1.15			85- 125	(40-105%)	55.5	NIL	1.11	NIL	26	11/30	.25	.26	12/31	NIL	NIL	YES	
	371 Red Robin Gourmet	(NDQ) RRBG	59.51	3	3	5	1.00			80- 125	(35-110%)	16.2	NIL	3.67	NIL	11	9/30	.58	.50	12/31	NIL	NIL	YES	
	1724 Regal Beloit	RBC	50.50	▼4	3	4	1.20			80- 120	(60-140%)	9.1	1.8	5.54	.92	37	12/31	◆1.17	.82	6/30	.23	.22	YES	
	2319 Regal Entertainment	RGC	18.07	3	3	4	.80			30- 40	(65-120%)	15.4	4.9	1.17	.88	21	12/31	◆.35	.30	3/31	◆.22	.22	YES	
	841 Regeneron Pharm.	(NDQ) REGN	365.97	▼2	3	1	1.10			440- 650	(20- 80%)	48.9	NIL	7.49	NIL	42	12/31	◆1.34	.96	12/31	NIL	NIL	YES	
	2521 Regions Financial	RF	7.65	3	3	2	1.40			12- 19	(55-150%)	9.7	3.5	.79	.27	54	12/31	.21	.14	3/31	.06	.05	YES	
	1014 Regis Corp.	RGS	13.28	3	3	4	.95			11- 16	(N- 20%)	NMF	NIL	.10	NIL	52	12/31	.03	d.16	12/31	NIL	NIL	YES	
	1559 Reinsurance Group	RG	84.69	3	2	3	1.05			90- 120	(5- 40%)	9.4	1.8	9.01	1.54	79	12/31	2.48	2.44	3/31	.37	.33	YES	
	748 Reliance Steel	RS	57.46	4	3	4	1.35			70- 110	(20- 90%)	11.8	2.8	4.88	1.60	93	9/30	1.16	1.33	12/31	.40	.35	YES	
	2028 RenaissanceRe Hldgs.	RNR	113.15	3	2	3	.70			105-140	(N- 25%)	11.5	1.1	9.82	1.20	32	12/31	3.07	3.62	12/31	.30	.29	YES	
2660	2148 Rent-A-Center	(NDQ) RCII	11.13	4	3	3	1.05			15- 25	(35-125%)	5.4	2.9	2.06	.32	71	12/31	.54	.48	6/30	▼.08	.24	YES	
	419 Republic Services	RSG	43.84	3	2	3	.80			40- 55	(N- 25%)	20.4	2.8	2.15	1.22	62	9/30	.53	.52	3/31	.30	.28	YES	
2461	229 ResMed Inc.	RMD	57.18	2	3	5	.95			70- 105	(20- 85%)	20.7	2.1	2.76	1.20	4	12/31	.64	.64	3/31	.30	.28	YES	
	407 Resources Connection	(NDQ) RECNC	14.38	3	3	3	1.20			25- 40	(75-180%)	15.5	2.8	.93	.40	38	11/30	.23	.21	3/31	.10	.08	YES	
	372 Restaurant Brands Int'l	QSR	30.25							50- 70	(65-130%)	32.2	1.7	.94	.52	11	9/30	.28	d.07	3/31	▲.13	.09	YES	
2250	1015 Revlon Inc.	REV	28.39	3	3	4	1.05			35- 50	(25- 75%)	16.9	NIL	1.68	NIL	52	9/30	.15	.27	12/31	NIL	NIL	YES	
	1725 Rexnord Corp.	RXN	17.52	4	3	4	1.15			30- 40	(70-130%)	16.1	NIL	1.09	NIL	37	12/31	.24	.06	12/31	NIL	NIL	YES	
	1992 Reynolds American	RAI	47.69	1	2	3	.65			40- 55	(N- 15%)	23.0	3.0	2.07	1.44	14	9/30	.46	.44	3/31	.36	.335	YES	
	1590 Rio Tinto plc	RIO	25.36	5	3	3	1.40			40- 65	(60-155%)	8.3	4.3	3.06	1.10	97	6/30	1.59(p)	2.77(p)	12/31	NIL	NIL	YES	
	972 Rite Aid Corp.	RAD	7.76							9- 16	(15-105%)	38.8	NIL	.20	NIL	15	11/30	.06	.10	12/31	NIL	NIL	YES	
	1646 Robert Hall Int'l	RHI	38.22	3	2	3	1.15			65- 90	(70-135%)	12.7	2.2	3.02	.84	17	12/31	.71	.62	12/31	.20	.18	YES	
	1313 Rockwell Automation	ROK	97.27	3	3	4	1.20			110- 170	(15- 75%)	16.5	3.0	5.90	2.90	68	12/31	1.40	1.56	3/31	◆.725	.65	YES	
	723 Rockwell Collins	COL	80.75	3	1	2	1.00			105-130	(30- 60%)	15.0	1.7	5.40	1.35	29	12/31	1.00	1.26	3/31	.33	.30	YES	
	133 Rofin-Sinar Techn.	(NDQ) RSTI	19.80	▼4	3	2	1.25			30- 45	(50-125%)	13.2	NIL	1.50	NIL	55	12/31	◆.23	.22	12/31	NIL	NIL	YES	
	1768 Rogers Communications	(TSE) RCIB.TO	47.34	3	3	3	1.55			55- 85	(15- 80%)	17.1	4.1	2.77										

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PAGE NUMBERS		RANKS										Industry Rank										Do Options Trade?			
Bold type refers to Ratings and Reports; italics to Selection & Opinion		Recent Price		Timeliness		Safety		Technical		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS					
NAME OF STOCK		Ticker Symbol																Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago		
191	St. Jude Medical	STJ	50.45	3	3	3	1.05	70-100	(40-100%)	12.7	2.5	3.97	1.24	3	12/31	1.02	1.03	3/31	.29	.27	YES				
1820	salesforce.com	CRM	57.33	1	3	1	1.20	80-120	(40-110%)	NMF	NIL	.05	NIL	22	10/31	d.04	d.06	12/31	NIL	NIL	YES				
1016	Sally Beauty	SBH	30.18	3	3	5	.70	35-55	(15-80%)	17.2	NIL	1.75	NIL	52	12/31	▲.28	.35	12/31	NIL	NIL	YES				
1932	Sanderson Farms	SAFM	82.88	3	3	4	.60	75-110	(N-35%)	14.5	1.1	5.70	.88	10	10/31	1.22	4.04	3/31	.22	.22	YES				
1409	SanDisk Corp.	SDNK	66.54	-	3	-	1.35	80-120	(20-80%)	17.5	NIL	3.81	NIL	64	12/31	1.26	1.30	12/31	▲.10	.30	YES				
1342	Sanmina Corp.	SANM	19.52	3	3	4	1.50	25-40	(30-105%)	8.3	NIL	2.35	NIL	63	12/31	.58	.61	12/31	NIL	NIL	YES				
1632	Sanofi ADR	SNY	38.87	▼	4	1	1.00	55-70	(40-80%)	17.1	4.3	2.27	1.68	35	12/31	▲.23	.61	12/31	NIL	NIL	YES				
1933	Saputo Inc.	SAPT	37.72	2	1	3	.70	30-40	(N-5%)	23.0	1.4	1.64	.54	10	12/31	▲.44	.38	3/31	▲135	.13	YES				
152	SCANA Corp.	SCG	65.28	3	2	3	.75	50-70	(N-5%)	16.6	3.5	3.93	2.26	44	9/30	1.04	1.01	3/31	.545	.525	YES				
1410	ScanSource	SCSC	31.30	3	3	4	1.20	50-75	(60-140%)	11.0	NIL	2.85	NIL	64	12/31	▲.77	.58	12/31	NIL	NIL	YES				
230	Schein (Henry)	HSIC	147.62	1	3	2	.95	160-240	(10-65%)	23.2	NIL	6.36	NIL	4	12/31	▲1.67	1.56	12/31	NIL	NIL	YES				
2433	Schlumberger Ltd.	SLB	67.80	4	2	3	1.30	115-155	(70-130%)	NMF	2.9	.59	2.00	94	12/31	d.61	.25	6/30	.50	.50	YES				
750	Schnitzer Steel	SCHN	13.34	5	3	4	1.40	25-35	(85-160%)	NMF	5.6	.10	.75	93	11/30	d.19	d.09	3/31	.188	.188	YES				
2246	ScholarCrest Corp.	SCHL	33.47	3	3	3	1.00	30-45	(N-35%)	23.6	1.8	1.42	.60	73	11/30	1.89	2.22	3/31	.15	.15	YES				
2033	Schulman (A.)	SCHL	23.04	3	3	3	1.35	45-65	(95-180%)	8.9	3.6	2.60	.82	56	11/30	.18	.45	3/31	.205	.205	YES				
1799	Schwab (Charles)	SCHW	23.34	3	3	2	1.30	35-50	(50-115%)	21.6	1.0	1.08	.24	23	12/31	.28	.25	3/31	.06	.06	YES				
1993	Schweitzer-Mauduit Int'l	SWM	40.84	3	3	3	.80	50-75	(20-85%)	13.0	3.9	3.15	1.60	14	9/30	.84	.76	12/31	▲.40	.38	YES				
409	Science Applications	SAIC	40.85	3	3	4	.95	50-75	(20-85%)	13.1	3.0	3.11	1.24	38	10/31	.73	.77	3/31	.31	.28	YES				
2368	Scientific Games	SGMS	4.87	-	5	-	1.55	12-20	(145-310%)	NMF	NIL	d3.20	NIL	48	9/30	d.85	d.50	12/31	NIL	NIL	YES				
1199	Scotts Miracle-Gro	SMG	63.81	3	3	3	.90	65-95	(N-50%)	16.4	3.0	3.90	1.94	5	12/31	d.132	d.123	3/31	.47	.45	YES				
2341	Scripps (E.W.) 'A'	SSP	16.27	3	3	3	1.15	25-35	(55-115%)	16.6	NIL	.98	NIL	53	9/30	d.29	d.02	12/31	NIL	NIL	YES				
2342	Scripps Networks	SNI	55.00	3	2	5	1.00	110-150	(100-175%)	11.1	1.7	4.96	.92	53	9/30	.96	.93	12/31	.23	.20	YES				
2013	SeaChange Int'l	SEAC	5.63	3	4	3	.90	6-11	(5-95%)	NMF	NIL	d.54	NIL	46	10/31	d.31	d.19	12/31	NIL	NIL	YES				
2434	Seadrill Ltd.	SDRL	1.73	5	5	1	1.60	15-30	(NMF)	1.5	NIL	1.13	NIL	94	9/30	d.05	.39	12/31	NIL	NIL	YES				
1411	Seagate Technology	STX	29.41	4	3	3	1.40	45-65	(55-120%)	9.0	8.6	3.26	2.52	64	12/31	.82	1.35	3/31	▲.63	.54	YES				
1183	Sealed Air	SEE	40.43	▲	2	3	1.05	45-70	(10-75%)	20.7	1.3	1.95	.52	51	12/31	▲.62	.31	12/31	.13	.13	YES				
2149	Sears Holdings	SHLD	15.25	-	5	-	NMF	20-30	(30-95%)	NMF	NIL	d9.34	NIL	71	10/31	d2.86	d2.71	12/31	NIL	NIL	YES				
842	Seattle Genetics	SGEN	29.04	▲	2	4	1.20	55-90	(90-210%)	NMF	NIL	d.65	NIL	42	12/31	▲.18	d.22	12/31	NIL	NIL	YES				
2321	SeaWorld Entertainment	SEAS	17.50	3	3	3	.95	20-35	(15-100%)	17.5	4.8	1.00	.84	21	9/30	1.14	1.00	3/31	.21	.21	YES				
815	Select Med. Hldgs.	SEM	7.82	4	3	3	1.15	14-20	(80-155%)	7.1	NIL	1.10	NIL	31	9/30	.22	.20	12/31	NIL	.10	YES				
772	Selective Ins. Group	SIGI	33.12	▲	1	3	.95	30-50	(N-50%)	11.8	1.8	2.81	.60	6	12/31	▲.81	.72	3/31	▲.15	.14	YES				
2239	Sempra Energy	SRE	95.90	3	3	5	.85	95-145	(N-50%)	18.7	2.9	5.14	2.80	36	9/30	.99	1.39	3/31	.70	.66	YES				
1379	Semtech Corp.	SMTC	16.22	3	3	4	1.15	25-40	(55-145%)	55.9	NIL	.29	NIL	45	10/31	.16	.26	12/31	NIL	NIL	YES				
843	Senomyx, Inc.	SNMX	2.99	-	5	-	1.55	15-25	(40-735%)	NMF	NIL	d.11	NIL	42	9/30	d.05	d.10	12/31	NIL	NIL	YES				
134	Sensata Technologies	ST	31.37	3	3	3	1.25	60-85	(90-170%)	11.2	NIL	2.81	NIL	55	12/31	.66	.57	12/31	NIL	NIL	YES				
1934	Sensient Techn.	SXT	54.98	3	2	2	1.10	55-75	(N-35%)	16.2	2.0	3.40	1.08	10	12/31	▲.71	.71	3/31	.27	.25	YES				
1829	Service Corp. Int'l	SCI	22.13	3	3	1	1.05	25-35	(15-60%)	16.6	2.2	1.33	.48	34	9/30	.23	.09	12/31	.12	.09	YES				
410	ServiceMaster Global	SERV	35.73	-	3	-	NMF	45-65	(25-80%)	20.0	NIL	1.79	NIL	38	9/30	.50	.63	12/31	NIL	NIL	YES				
2460	ServiceNow, Inc.	NOW	48.52	1	4	1	1.10	40-70	(N-45%)	NMF	NIL	d.71	NIL	1	12/31	d.23	d.30	12/31	NIL	NIL	YES				
374	Shake Shack	SHAK	34.40	-	3	-	NMF	30-50	(N-45%)	68.8	NIL	.50	NIL	11	9/30	.12	NA	12/31	NIL	NIL	YES				
1252	Shaw Commun. 'B'	SJRB	23.31b	4	2	4	.65	35-45	(50-95%)	13.0	5.1	1.80	1.20	69	11/30	.43(b)	.46(b)	6/30	.296(b)	.296(b)	YES				
930	Shenandoah Telecom.	SHEN	21.17	2	3	3	1.05	20-30	(N-40%)	25.5	1.2	.83	.26	25	9/30	.17	.17	12/31	▲.24	.235	YES				
1142	Sherwin-Williams	SHW	252.43	2	1	3	.90	280-340	(10-35%)	20.4	1.3	12.37	3.20	2	12/31	2.12	1.37	12/31	.67	.55	YES				
1770	Siemens AG (ADS)	SIEGY	92.97	3	3	4	1.15	145-180	(55-95%)	10.1	4.2	9.22	3.92	58	12/31	2.17	1.67	12/31	NIL	NIL	YES				
595	Sierra Wireless	SWIR	10.41	3	4	4	1.20	30-55	(90-430%)	37.2	NIL	.28	NIL	43	12/31	▲d.01	d.05	12/31	NIL	NIL	YES				
SEE FINAL SUPPLEMENT - PAGE 457																									
457	Sigma-Aldrich	SIAL																							
2193	Signet Jewelers Ltd.	SIG	96.28	2	3	2	1.10	130-200	(35-110%)	12.6	1.0	7.67	1.00	66	10/31	.33	.21	3/31	.22	.18	YES				
1184	Sigan Holdings	SLGN	51.31	3	3	3	.80	55-85	(5-65%)	17.2	1.2	2.98	.64	51	12/31	.48	.37	12/31	.16	.15	YES				
1380	Silicon Labs	SLAB	38.99	3	3	2	1.00	50-70	(30-80%)	28.9	1.35	1.35	NIL	45	12/31	.13	.23	12/31	NIL	NIL	YES				
1576	Silver Wheaton	SLW	14.16	3	3	5	1.20	20-30	(40-110%)	28.3	1.4	.50	.20	90	9/30	.12	.01	12/31	.05	.06	YES				
1542	Simon Property Group	SPG	178.93	2	2	2	.85	190-260	(5-45%)	34.3	3.6	5.22	6.40	28	12/31	1.27	1.30	3/31	1.60	1.40	YES				
1117	Simpson Manufacturing	SSD	32.43	3	3	3	1.05	35-55	(10-70%)	23.5	2.0	1.38	.64	27	12/31	▲.30	.21	6/30	▲.16	.14	YES				
2343	Sinclair Broadcast	SBGI	26.97	3	4	2	1.40	55-90	(105-235%)	11.1	2.4	2.44	.66	53	9/30	.45	.49	12/31	.165	.165	YES				
2344	Sirius XM Holdings	SIRI	3.35	3	4	1	1.10	10-20	(200-495%)	27.9	NIL	.12	NIL	53	12/31	.03	.03	12/31	NIL	NIL	YES				
231	Sirona Dental	SIRO	103.01	-	3	-	1.00	105-155	(N-50%)	27.5	NIL	3.75	NIL	4											



# SP-TE

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PAGE NUMBERS			RANKS										Industry Rank										Do Options Trade?		
NAME OF STOCK			Recent Price		Safety		Technical		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS						
			Ticker Symbol	Timeliness	Beta														Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago	
1200	Spectrum Brands	SPB	95.81	2	3	3	1.00	100-145	(5-50%)	20.2	1.6	4.75	1.52	5	12/31	1.01	1.07	3/31	▲.38	.33	YES				
2324	Speedway Motorsports	TRK	17.93	3	3	3	.90	20-30	(10-65%)	15.5	3.3	1.16	.60	21	9/30	.21	.22	12/31	.15	.15	YES				
724	Spirit AeroSystems	SPR	45.25	3	3	2	1.20	55-85	(20-90%)	10.5	NIL	4.30	NIL	29	12/31	1.01	.65	12/31	NIL	NIL	YES				
314	Spirit Airlines	(NDQ) SAVE	42.73	3	3	5	1.20	55-80	(30-85%)	10.3	NIL	4.16	NIL	33	12/31	▲1.04	.76	12/31	NIL	NIL	YES				
1822	Splunk Inc.	(NDQ) SPLK	31.92	2	3	3	1.60	75-125	(135-200%)	NMF	NIL	d2.07	NIL	22	10/31	d.57	d.40	12/31	NIL	NIL	YES				
931	Sprint Corp.	S	2.65	4	4	2	1.30	4-7	(50-165%)	NMF	NIL	d.59	NIL	25	12/31	d.21	d.25	12/31	NIL	NIL	YES				
1954	Sprouts Farmers Market	(NDQ) SFM	22.40	3	3	4	.90	35-50	(55-125%)	23.6	NIL	.95	NIL	24	9/30	.21	.17	12/31	NIL	NIL	YES				
2221	Stage Stores	SSI	7.05	5	4	3	1.40	17-30	(140-325%)	10.2	8.5	.69	.60	75	10/31	d.32	d.16	12/31	.15	.14	YES				
1560	StanCorp Fin'l Group	SFG	114.83	-	3	-	.90	70-105	(N-NA)	21.1	1.2	5.45	1.40	79	12/31	.89	1.32	12/31	▲1.40	1.30	YES				
1000	Standard Motor Prod.	SMP	34.95	2	3	3	1.30	55-85	(55-145%)	13.0	1.9	2.68	.68	59	9/30	.83	.77	3/31	▲.17	.15	YES				
1771	Standex Int'l	SXI	67.30	2	3	1	1.05	80-120	(20-80%)	13.6	0.8	4.96	.56	58	12/31	1.02	.97	3/31	.14	.12	YES				
1729	Stanley Black & Decker	SWK	90.63	2	2	2	1.05	105-145	(15-60%)	14.0	2.4	6.47	2.20	37	12/31	1.78	1.37	12/31	.55	.52	YES				
1247	Stantec Inc.	(TSX) STN.TO	31.84	2	3	2	.90	35-55	(10-75%)	15.5	1.3	2.06	.42	80	9/30	.53	.52	3/31	.105	.093	YES				
1040	1424 Staples, Inc.	(NDQ) SPLS	8.40	5	3	3	1.05	12-18	(45-115%)	9.0	5.7	.93	.48	82	10/31	.35	.37	3/31	.12	.12	YES				
376	Starbucks Corp.	(NDQ) SBUX	54.42	1	1	3	.95	75-90	(40-65%)	28.6	1.5	1.90	.80	11	12/31	.46	.40	3/31	.20	.16	YES				
461	2369 Starwood Hotels	HOT	61.20	-	3	-	1.30	80-125	(30-105%)	18.8	2.5	3.25	1.50	48	9/30	.53	.59	12/31	.375	.35	YES				
2655	2345 Starz	(NDQ) STRZA	22.04	3	3	3	1.00	40-60	(80-170%)	9.5	NIL	2.31	NIL	53	9/30	.56	.51	12/31	NIL	NIL	YES				
2523	State Street Corp.	STT	53.40	3	3	3	1.20	70-100	(30-85%)	11.4	2.7	4.69	1.42	54	12/31	1.34	1.12	3/31	.34	.30	YES				
751	Steel Dynamics	(NDQ) STLD	17.34	4	3	4	1.40	30-40	(75-130%)	14.6	3.2	1.19	.55	93	12/31	.09	.36	3/31	.138	.115	YES				
1429	1159 Steelcase, Inc. 'A'	SCS	12.19	3	3	3	1.25	25-35	(105-185%)	10.6	3.7	1.15	.45	12	11/30	.30	.29	3/31	.113	.105	YES				
463	2150 Stein Mart	(NDQ) SMRT	6.61	5	3	4	.95	14-20	(110-205%)	9.9	4.5	.67	.30	71	10/31	.01	d.03	3/31	.075	.075	YES				
420	Stericycle Inc.	(NDQ) SRCL	106.03	3	2	4	.80	160-210	(50-100%)	21.3	NIL	4.97	NIL	62	12/31	▲1.11	1.12	12/31	NIL	NIL	YES				
192	STERIS plc	STE	66.47	1	2	2	1.05	90-125	(35-90%)	17.3	1.5	3.85	1.00	3	12/31	▲.98	.79	3/31	◆.25	.23	YES				
1807	Stifel Financial Corp.	SF	30.51	4	3	3	1.35	55-85	(80-180%)	10.0	NIL	3.04	NIL	72	9/30	.60	.53	12/31	NIL	NIL	YES				
1577	Stillwater Mining	SWC	6.63	5	3	4	1.50	14-20	(110-200%)	36.8	NIL	.18	NIL	90	9/30	d.07	.14	12/31	NIL	NIL	YES				
1382	STMicrollectronics	STM	5.35	5	3	3	1.45	10-15	(85-180%)	38.2	7.5	.14	.40	45	12/31	NIL	.05	3/31	◆.10	.10	YES				
1830	StoneMor Partners L.P.	(NDQ) STON	26.20	3	3	3	.65	25-40	(N-55%)	NMF	10.1	d.33	2.64	34	9/30	d.11	d.12	12/31	▲.66	.62	YES				
1344	Stratascus Ltd.	(NDQ) SSYS	15.94	4	3	3	1.45	30-50	(90-215%)	NMF	NIL	d1.85	NIL	63	9/30	d18.06	d.62	12/31	NIL	NIL	YES				
2002	Strayer Education	(NDQ) STRA	43.78	3	4	2	1.15	70-115	(60-165%)	11.2	NIL	3.91	NIL	77	12/31	▲1.21	1.21	12/31	NIL	NIL	YES				
193	Stryker Corp.	SYK	96.64	2	1	4	.90	105-130	(10-35%)	20.9	1.6	4.63	1.52	3	12/31	1.38	.89	6/30	◆.38	.345	YES				
2325	Sturm, Ruger & Co.	RGR	62.51	3	3	4	.95	55-85	(N-35%)	19.5	2.0	3.21	1.24	21	9/30	.62	.34	12/31	▼.25	.14	YES				
622	Suburban Propane	SPH	22.27	5	3	3	.80	35-50	(55-125%)	11.1	15.9	2.00	3.55	91	12/31	◆.20	.92	12/31	.888	.875	YES				
516	Suncor Energy	(TSX) SU.TO	29.95	4	3	3	1.20	45-65	(50-115%)	NMF	3.9	d.88	1.16	87	12/31	d1.38	.06	3/31	.29	.28	YES				
1232	SunEdison Inc.	SUNE	2.63	4	5	2	2.45	7-14	(165-430%)	NMF	NIL	d2.57	NIL	85	9/30	d.92	d1.04	12/31	NIL	NIL	YES				
623	Sunoco Logistics Part.	SXL	17.19	4	3	3	1.15	40-60	(135-250%)	12.4	10.6	1.39	1.83	91	9/30	d.07	.50	12/31	▲.458	.383	YES				
1233	SunPower Corp.	(NDQ) SPWR	22.96	3	4	3	1.80	40-65	(75-185%)	NMF	NIL	d3.06	NIL	85	9/30	d.41	.20	12/31	NIL	NIL	YES				
2524	SunTrust Banks	STI	33.16	3	2	2	1.25	45-65	(35-95%)	9.5	3.5	3.50	1.16	54	12/31	.89	.89	3/31	◆.24	.20	YES				
2435	Superior Energy Svcs.	SPN	9.14	5	3	3	1.70	12-18	(30-95%)	NMF	3.5	d1.77	.32	94	9/30	d.46	.59	3/31	.08	.08	YES				
1001	Superior Inds. Int'l	SUP	18.66	3	3	5	1.15	20-30	(5-60%)	17.0	3.9	1.10	.72	59	9/30	.19	d.09	3/31	.18	.18	YES				
1955	SUPERVALU INC.	SVU	4.14	-	5	-	1.10	9-17	(115-310%)	8.6	NIL	.48	NIL	24	11/30	.13	.18	12/31	NIL	NIL	YES				
194	SurModics, Inc.	(NDQ) SRDX	18.52	3	3	4	.80	30-45	(60-145%)	28.5	NIL	.65	NIL	3	12/31	.19	.27	3/31	NIL	NIL	YES				
327	Swift Transportation	SWFT	17.26	4	4	5	1.75	30-50	(75-190%)	9.4	NIL	1.83	NIL	65	12/31	.53	.41	12/31	NIL	NIL	YES				
436	Swiss Helvetia Fund	SWZ	9.55	-	3	-	.90	11-16	(15-70%)	NMF	.05	.5	NMF	.05	-	9/30	12.49(q)	15.46(q)	3/31	.033	NIL	YES			
2594	Symantec Corp.	(NDQ) SYMC	18.72	4	3	3	1.10	20-30	(5-60%)	17.5	3.2	1.07	.60	26	12/31	▲.26	.53	12/31	.15	.15	YES				
2246	962 Synaptics	(NDQ) SYNA	71.48	3	3	3	1.10	115-175	(60-145%)	9.7	NIL	7.40	NIL	81	12/31	1.60	1.46	12/31	NIL	NIL	YES				
2014	Synchronoss Techn.	(NDQ) SNCR	22.63	3	3	3	1.45	70-105	(210-365%)	9.2	NIL	2.47	NIL	46	12/31	.61	.53	12/31	NIL	NIL	YES				
2571	Synchrony Financial	SYF	25.08	-	3	-	NMF	35-55	(40-120%)	9.3	NIL	2.71	NIL	57	12/31	.65	.64	12/31	NIL	NIL	YES				
411	SYNNEX Corp.	SNX	85.93	3	3	3	1.10	85-125	(N-45%)	12.8	0.9	6.70	.80	38	11/30	1.80	1.83	3/31	.20	.125	YES				
2595	Synopsys, Inc.	(NDQ) SNPS	40.96	3	1	2	.95	55-65	(35-60%)	14.4	NIL	2.84	NIL	26	10/31	.67	.64	12/31	NIL	NIL	YES				
2525	Synovus Financial	SNV	27.25	2	3	2	1.25	50-75	(85-175%)	15.0	1.8	1.82	.48	54	12/31	.44	.37	3/31	▲.12	.10	YES				
2246	1937 Synutra Int'l	(NDQ) SYUT	5.18	-	5	-	1.15	11-20	(110-285%)	5.7	NIL	.91	NIL	10	12/31	◆.21	.30	12/31	NIL	NIL	YES				
1956	Sysco Corp.	SYU	42.61	2	1	3	.70	50-60	(15-40%)	21.2	2.9	2.01	1.24	24	12/31	.45	.41	3/31	▲.31	.30	YES				
932	T-Mobile US	(NDQ) TMUS	33.89	2	3	2	.95	40-65	(20-90%)	26.3	NIL	1.29	NIL	25	9/30	.15	d.13	12/31	NIL	NIL	YES				
791	TCF Financial	TCB	10.98	3	3	3	1.15	20-30	(80-175%)	8.7	2.7	1.26	.30	49	12/31	.29	.12	3/31	.075	.05	YES				
1800	TD Ameritrade Holding	(NDQ) AMTD	26.36	3	3	3	1.25	40-55	(50-110%)	16.0	2.6	1.65	.68	23	12/31	.39	.39	3/31	.17	.15	YES				
1345	TE Connectivity	TEL	52.27	3																					

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AGE NUMBERS		RANKS										Industry Rank										Do Options Trade?			
Bold type refers to Ratings and Reports; italics to Selection & Opinion		Recent Price		Timeliness		Safety		Technical		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS					
NAME OF STOCK		Ticker Symbol						Beta										Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago		
816	Tenet Healthcare	THC	24.21	4	4	4	1.35		65- 110	(170-355%)	11.6	NIL	2.09	NIL	31	9/30	.29	.36	12/31	NIL	NIL	YES			
1730	Tennant Co.	TNC	52.16	3	3	4	1.15		70- 100	(35- 90%)	17.9	1.5	2.91	.80	37	9/30	.68	.63	12/31	.20	.20	YES			
1002	Tenneco Inc.	TEN	40.15	3	4	3	1.65		70- 115	(75-185%)	7.9	NIL	5.06	NIL	59	12/31	♦1.39	1.05	12/31	NIL	NIL	YES			
2596	Teradata Corp.	TDC	22.60	4	3	3	1.10		50- 75	(20-230%)	9.0	NIL	2.52	NIL	26	12/31	♦.70	.91	12/31	NIL	NIL	YES			
1396	Teradyne Inc.	TER	17.77	3	3	2	1.35		20- 35	(15- 95%)	15.1	1.4	1.18	.24	41	12/31	NIL	d.03	3/31	.06	.06	YES			
2462	170 Terex Corp.	TEX	20.01	-	4	-	2.00		30- 50	(50-150%)	10.3	1.2	1.94	.24	83	9/30	.58	.59	12/31	.06	.05	YES			
110	Tesla Motors	(NDQ) TSLA	148.25	3	4	2	1.30		165- 270	(10- 80%)	NMF	NIL	d2.00	NIL	67	9/30	d1.78	d.60	12/31	NIL	NIL	YES			
517	Tesoro Corp.	TSO	73.62	2	3	2	1.30		110- 170	(50-130%)	8.1	2.7	9.10	2.00	87	12/31	.45	1.11	12/31	.50	.30	YES			
1384	Tessera Technologies	(NDQ) TSRA	27.37	4	3	4	1.05		35- 50	(30- 85%)	17.1	2.9	1.60	.80	45	12/31	.44	.50	3/31	.20	.20	YES			
421	Tetra Tech	(NDQ) TTEK	25.80	3	3	3	1.15		50- 75	(95-190%)	14.7	1.2	1.75	.32	62	12/31	.42	.41	3/31	.08	.07	YES			
2436	TETRA Technologies	TTI	5.00	3	4	3	1.75		11- 18	(120-260%)	20.0	NIL	.25	NIL	94	9/30	.14	.12	12/31	NIL	NIL	YES			
1633	Teva Pharm. ADR	TEVA	57.67	3	2	2	.85		60- 80	(5- 40%)	11.0	2.5	5.26	1.44	35	9/30	1.35	1.32	12/31	.34	.317	YES			
1385	Texas Instruments	(NDQ) TXN	50.68	2	1	2	1.10		65- 80	(30- 60%)	16.9	3.0	3.00	1.52	45	12/31	.80	.76	3/31	.38	.34	YES			
377	Texas Roadhouse	(NDQ) TXRH	36.07	2	3	3	.95		40- 60	(10- 65%)	22.4	1.9	1.61	.68	11	9/30	.29	.27	12/31	.34	.15	YES			
1772	Textron, Inc.	TXT	32.03	3	3	2	1.35		65- 95	(105-195%)	11.4	0.2	2.81	.08	58	12/31	.81	.76	3/31	.02	.02	YES			
439	Thai Fund	TTF	6.83	-	5	-	NMF		8- 15	(15-120%)	NMF	2.2	NMF	.15	-	6/30	9.45(q)	12.79(q)	3/31	.123	NIL	YES			
2029	135 Thermo Fisher Sci.	TMO	124.45	2	2	2	1.05		140- 185	(10- 50%)	23.9	0.5	5.21	.60	55	12/31	2.12	1.50	3/31	.15	.15	YES			
455	Thomson Reuters	(TSE) TRI.TO	49.45	2	2	3	.70		50- 65	(0- 30%)	22.3	2.7	2.22	1.34	9	9/30	.52	.45	12/31	.335	.33	YES			
2326	Thor Inds.	THO	48.70	2	3	3	1.20		65- 95	(35- 95%)	11.1	2.5	4.40	1.20	21	10/31	.96	.73	3/31	.30	.27	YES			
1831	1346 3D Systems	DDD	8.51	4	3	4	1.55		14- 20	(65-135%)	NMF	NIL	d.37	NIL	63	9/30	d.29	.03	12/31	NIL	NIL	YES			
2460	1773 3M Company	MMM	154.74	2	1	5	.95		175- 215	(15- 40%)	19.3	2.9	8.01	4.44	58	12/31	1.66	1.81	3/31	▲1.11	1.025	YES			
2437	Tidewater Inc.	TDW	5.19	5	4	3	1.35		25- 40	(380-670%)	NMF	19.3	d1.30	1.00-20	94	12/31	d.07	1.12	12/31	.25	.25	YES			
2193	Tiffany & Co.	TIF	62.17	4	3	3	1.15		110- 160	(75-155%)	15.0	2.7	4.14	1.66	66	10/31	.70	.76	3/31	.40	.38	YES			
1143	Tile Shop Hldgs.	(NDQ) TTS	12.79	3	4	2	1.10		11- 19	(0- 50%)	32.8	NIL	.39	NIL	2	9/30	.07	.03	12/31	NIL	NIL	YES			
2223	Tilly's, Inc.	TLYS	6.44	5	3	4	.95		14- 20	(115-210%)	17.4	NIL	.37	NIL	75	10/31	.16	.18	12/31	NIL	NIL	YES			
2379	Time Inc.	TIME	13.80	-	3	-	NMF		25- 35	(80-155%)	10.1	5.5	1.37	.76	73	9/30	.32	.41	12/31	.19	.19	YES			
2347	Time Warner	TWC	63.21	3	3	5	1.05		100- 150	(80-135%)	12.6	2.5	5.01	1.61	53	12/31	♦1.06	.84	3/31	▲.403	.35	YES			
1026	Time Warner Cable	TWC	180.59	-	3	-	.90		115- 175	(0- N/A)	26.1	1.7	6.91	3.00	69	12/31	1.70	.95	3/31	.75	.75	YES			
738	Timken Co.	TKR	29.00	-	3	-	NMF		55- 85	(90-195%)	10.4	3.6	2.78	1.04	89	12/31	.59	.65	12/31	.26	.25	YES			
1003	Titan Intl	TWI	3.05	5	3	2	1.70		8- 11	(160-260%)	NMF	0.7	d.53	.02	59	9/30	d.59	d.17	3/31	.005	.005	YES			
2016	TiVo Inc.	(NDQ) TIVO	7.50	3	3	3	1.20		17- 25	(125-235%)	14.4	NIL	.52	NIL	46	10/31	.06	.06	12/31	NIL	NIL	YES			
1136	Toll Brothers	TOL	25.05	3	3	3	1.35		40- 60	(60-140%)	9.8	NIL	2.55	NIL	47	10/31	.80	.71	12/31	NIL	NIL	YES			
1938	Tootsie Roll Ind.	TR	31.82	▲2	1	3	.85		35- 40	(10- 25%)	28.4	1.1	1.12	.36	10	12/31	♦.32	.29	3/31	.09	.156	YES			
1561	Torchmark Corp.	TMK	51.11	2	1	2	.95		60- 75	(15- 45%)	11.5	1.1	4.46	.54	79	12/31	♦1.05	1.13	3/31	.135	.127	YES			
1731	Toro Co.	TTC	71.82	1	3	3	1.00		65- 95	(0- 30%)	18.1	1.7	3.96	1.20	37	10/31	.42	.19	3/31	▲.30	.25	YES			
2528	Toronto-Dominion	(TSE) TD.TO	50.28b	3	2	3	.70		60- 80	(20- 60%)	11.2	4.4	4.49	2.20	54	10/31	.96(b)	.91(b)	3/31	.51(b)	.47(b)	YES			
518	Total ADR	TOT	41.40	4	2	4	1.20		70- 90	(70-115%)	12.2	6.5	3.40	2.70	87	9/30	.45	1.56	12/31	.691	.773	YES			
2462	2572 Total System Svcs.	TSS	38.51	2	2	2	.95		45- 60	(15- 55%)	18.9	1.0	2.04	.40	57	12/31	.44	.43	3/31	.10	.10	YES			
1831	413 Towers Watson & Co.	TW	SEE FINAL SUPPLEMENT - PAGE 1831																						
111	Toyota Motor ADR(g)	TM	106.84	3	3	4	.95		150- 230	(40-115%)	8.5	3.4	12.58	3.64	67	12/31	♦3.32	3.17	12/31	1.628	1.263	YES			
1144	Tractor Supply	(NDQ) TSCO	81.45	2	2	3	1.00		110- 150	(35- 85%)	24.8	1.1	3.28	.92	2	12/31	.82	.81	3/31	♦.20	.16	YES			
1234	TransAlta Corp.	(TSE) TA.TO	5.18b	5	4	4	.80		10- 15	(95-190%)	21.6	3.1	.24	.16	85	9/30	.55(b)	d.03(b)	3/31	.18(b)	.18(b)	YES			
608	TransCanada Corp.	TRP	34.44	4	2	5	.95		60- 80	(75-130%)	16.2	6.6	2.12	2.26	74	9/30	.43	.55	3/31	.52	.48	YES			
727	TransDigm Group	DG	187.29	1	3	3	.95		225- 335	(20- 80%)	18.7	NIL	10.00	NIL	29	12/31	♦1.97	1.63	12/31	NIL	NIL	YES			
2438	Transocean Ltd.	RIG	8.91	5	4	3	1.45		14- 25	(55-180%)	7.7	NIL	1.16	NIL	94	9/30	.88	.96	12/31	▼NIL	.75	YES			
2246	773 Travelers Cos.	TRV	105.92	3	1	3	.85		130- 160	(25- 50%)	10.4	2.3	10.17	2.44	6	12/31	2.90	3.07	3/31	.61	.55	YES			
579	Tredegar Corp.	TG	12.75	4	3	4	1.40		25- 40	(95-215%)	12.1	3.9	1.05	.50	56	9/30	.28	.33	3/31	.11	.09	YES			
1939	TreeHouse Foods	THS	77.58	2	3	4	.65		85- 125	(10- 60%)	23.6	NIL	3.29	NIL	10	9/30	.86	.89	12/31	NIL	NIL	YES			
1118	Trex Co.	TREX	33.83	3	3	4	1.35		55- 80	(65-135%)	18.2	NIL	1.86	NIL	27	9/30	.26	.28	12/31	NIL	NIL	YES			
1215	Tri-Continental	TY	17.86	-	2	3	.95		25- 35	(40- 95%)	NMF	4.2	NMF	.75	-	6/30	24.89(q)	24.40(q)	12/31	.209	.201	YES			
2348	Tribune Media Co.	TRCO	27.36	5	3	3	1.15		60- 85	(120-210%)	14.4	3.7	1.90	1.00	53	9/30	.29	.53	12/31	.25	NIL	YES			
2661	2387 Tribune Publishing Co.	TPUB	6.18	-	3	-	NMF		30- 40	(385-545%)	2.9	NIL	2.11	NIL	84	9/30	d.13	d.01	6/30	▼NIL	.175	YES			
1774	TriMas Corp.	TRS	16.18	-	3	-	NMF		25- 35	(55-115%)	11.6	NIL	1.40	NIL	58	9/30	.39	.47	12/31	NIL	NIL	YES			
★	1314 Trimble Nav. Ltd.	(NDQ) TRMB	18.82	3	3	3	1.20		25- 40	(35-115%)	36.2	NIL	.52	NIL	68	12/31	♦0.39	.21	12/31	NIL	NIL	YES			
348	Trinity Inds.	TRN	21.58	3	3	3	1.70		50- 70	(130-225%)	5.4	2.0	4.03	.44	70	9/30	1.01	.90	3/31	.11	.10	YES			
★	2638 TripAdvisor, Inc.	(NDQ) TRIP																							

PAGE NUMBERS

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& Opinion

RANKS

Industry Rank

Do Options Trade?

Ratings and Reports; Italics to Selection & Opinion			Recent Price		Safety		Technical		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings. 12 mos. to 9-30-16		(f) Est'd Div'd next 12 mos.		LATEST RESULTS								
NAME OF STOCK			Ticker Symbol		Timeliness		Beta								Qtr. Ended		Earns. Per sh.		Year Ago		Qtr. Ended		Latest Div'd		Year Ago		
2465 2463	792	U.S. Bancorp	USB	39.40	2	2	4	.95	45-	65	(15- 65%)	12.2	2.6	3.23	1.02	49	12/31	.79	.79	3/31	.255	.245	YES				
	935	U.S. Cellular	USM	36.19	3	3	2	1.05	30-	50	(N- 40%)	47.0	NIL	.77	NIL	25	9/30	.75	d.26	12/31	NIL	NIL	YES				
	752	U.S. Steel Corp.	X	7.34	5	4	4	1.70	10-	16	(35-120%)	NMF	2.7	d7.93	.20	93	12/31	d6.83	1.83	3/31	.05	.05	YES				
	1776	United Technologies	UTX	87.24	3	1	3	1.05	130-	160	(50- 85%)	13.7	2.9	6.35	2.56	58	12/31	1.53	1.62	3/31	♦.64	.64	YES				
2247	844	United Therapeutics	UTHR	119.32	3	3	2	1.00	240-	350	(100-195%)	10.2	NIL	11.71	NIL	42	9/30	3.43	2.44	12/31	NIL	NIL	YES				
	817	UnitedHealth Group	UNH	111.16	3	1	3	.90	130-	160	(15- 45%)	15.6	1.8	7.11	2.00	31	12/31	1.40	1.55	3/31	♦.50	.375	YES				
	1994	Universal Corp.	UVV	53.01	3	3	2	.75	45-	65	(N- 25%)	11.1	4.0	4.77	2.12	14	12/31	♦1.60	2.07	6/30	♦.53	.52	YES				
	1315	Universal Display	OLED	42.93	2	3	2	1.60	50-	75	(15- 75%)	36.4	NIL	1.18	NIL	68	9/30	.15	.09	12/31	NIL	NIL	YES				
2017	2017	Universal Electronics	UEIC	48.42	▲ 3	4	4	1.10	55-	80	(15- 65%)	21.1	NIL	2.30	NIL	46	9/30	.41	.68	12/31	NIL	NIL	YES				
	1120	Universal Forest	UFPI	61.69	2	3	2	1.25	75-	115	(20- 85%)	15.0	1.4	4.10	.84	27	9/30	1.26	.96	12/31	▲.42	.40	YES				
	818	Universal Health Sv. 'B'	UHS	105.52	2	3	2	1.20	120-	180	(15- 70%)	14.6	0.4	7.24	.40	31	9/30	1.53	1.36	3/31	.10	.10	YES				
	1562	Unum Group	UNM	26.17	3	3	2	1.05	40-	60	(55-130%)	7.0	2.8	3.74	.74	79	12/31	.95	d1.11	3/31	.185	.165	YES				
464	2224	Urban Outfitters	URBN	23.59	4	3	5	.85	55-	85	(35-260%)	12.4	NIL	1.91	NIL	75	10/31	.42	.35	12/31	NIL	NIL	YES				
	819	VCA Inc.	WOLF	46.34	2	3	2	1.05	60-	90	(30- 95%)	18.9	NIL	2.45	NIL	31	9/30	.64	.52	12/31	NIL	NIL	YES				
	232	VWR Corp.	VWR	22.72	-	3 -	-	NMF	30-	50	(30-120%)	11.4	NIL	1.99	NIL	4	9/30	.08	.97	12/31	NIL	NIL	YES				
	2117	V.F. Corp.	VFC	56.66	3	2	4	.90	80-	105	(40- 85%)	16.8	2.6	3.38	1.48	60	9/30	1.07	1.08	12/31	▲.37	.32	YES				
849 1253	2370	Vail Resorts	MTN	116.39	1	3	2	.95	100-	155	(N- 35%)	30.0	2.1	3.88	2.49	48	10/31	d1.63	d1.77	3/31	.623	.415	YES				
	1593	Vale S.A. ADR	VALE	2.47	5	4	2	1.45	9-	15	(265-505%)	9.9	NIL	.25	NIL	97	9/30	.03	d.28	12/31	.096	.407	YES				
	1634	Valeant Pharm. Int'l	VRX	86.95	3	4	4	1.15	225-	375	(160-330%)	7.2	NIL	12.10	NIL	35	9/30	2.74	2.11	12/31	NIL	NIL	YES				
	519	Valero Energy	VLO	54.82	3	3	2	1.35	60-	90	(10- 65%)	9.5	4.4	5.77	2.40	87	12/31	1.79	2.22	3/31	▲.60	.40	YES				
1777	1777	Valmont Inds.	VMI	105.31	4	3	4	1.10	110-	160	(5- 50%)	17.4	1.4	6.04	1.50	58	9/30	1.39	.92	3/31	.375	.375	YES				
	580	Valspar Corp.	VAL	81.13	3	3	3	1.05	90-	140	(10- 75%)	16.6	1.6	4.90	1.32	56	10/31	1.26	1.27	12/31	▲.33	.30	YES				
	196	Varian Medical Sys.	VAR	74.87	3	1	4	1.00	110-	135	(45- 80%)	17.0	NIL	4.40	NIL	3	12/31	.91	.92	12/31	NIL	NIL	YES				
	917	Vectren Corp.	VVC	44.53	3	2	4	.80	45-	60	(N- 35%)	17.7	3.6	2.52	1.60	19	9/30	.48	.57	3/31	♦.40	.38	YES				
137	137	Veeco Instruments	VECO	17.70	4	4	4	1.15	20-	35	(15-100%)	28.1	NIL	.63	NIL	55	9/30	.33	d.02	12/31	NIL	NIL	YES				
	1544	Ventas, Inc.	VTR	50.08	3	3	4	.80	70-	105	(40-110%)	29.6	6.3	1.69	3.16	28	9/30	.14	.37	12/31	.73	.79	YES				
	2225	Vera Bradley Inc.	VRA	14.36	3	3	3	1.20	20-	30	(40-110%)	16.3	NIL	.88	NIL	75	10/31	.27	.21	12/31	NIL	NIL	YES				
	963	Verifone Systems	PAY	20.71	4	4	3	1.30	40-	65	(95-215%)	9.2	NIL	2.25	NIL	81	10/31	.49	.43	12/31	NIL	NIL	YES				
2640	2640	VeriSign Inc.	VRSN	72.62	1	3	2	.85	80-	115	(10- 60%)	23.7	NIL	3.07	NIL	30	9/30	.70	.69	12/31	NIL	NIL	YES				
	456	Verisk Analytics	VRSK	67.77	1	2	2	.75	85-	115	(25- 70%)	27.1	NIL	2.50	NIL	9	9/30	.77	.58	12/31	NIL	NIL	YES				
	936	Verizon Commun.	VZ	50.15	3	1	5	.75	75-	90	(50- 80%)	12.4	4.5	4.04	2.26	25	12/31	.89	.71	3/31	.565	.55	YES				
	845	Vertex Pharm.	VRTX	80.14	3	3	2	.95	160-	240	(100-200%)	38.2	NIL	2.10	NIL	42	12/31	d.31	d.74	12/31	NIL	NIL	YES				
2350	2350	Viacom Inc. 'B'	VIAB	32.86	4	3	5	1.05	95-	145	(190-340%)	5.7	4.9	5.80	1.60	53	12/31	♦1.18	1.29	6/30	.40	.33	YES				
	1778	Viad Corp.	VVI	26.81	3	3	2	1.05	35-	45	(5- 60%)	15.0	1.5	1.79	.40	58	12/31	♦.05	d.25	3/31	.10	.10	YES				
	597	ViaSat, Inc.	VSAT	56.90	▼ 3	3	3	1.05	60-	90	(5- 60%)	63.2	NIL	.90	NIL	43	12/31	♦.20	.31	12/31	NIL	NIL	YES				
	1347	Viavi Solutions	VIAV	5.88	-	4 -	-	NMF	7-	11	(20- 85%)	16.3	NIL	.36	NIL	63	12/31	.11	.15	12/31	NIL	NIL	YES				
2664	1958	Village Super Market	VLGEA	25.08	3	3	3	.80	35-	55	(40-120%)	11.7	4.0	2.14	1.00	24	10/31	.31	.27	3/31	.25	.25	YES				
	2573	Visa Inc.	V	68.33	2	1	2	.95	90-	110	(30- 60%)	22.8	0.9	3.00	.60	57	12/31	.80	.63	3/31	♦.14	.12	YES				
	1348	Vishay Intertechnology	VSH	11.12	4	3	3	1.50	12-	19	(10- 70%)	15.4	2.2	.72	.24	63	12/31	♦.14	.19	12/31	.06	.06	YES				
	1004	Visteon Corp.	VC	60.45	-	3 -	-	NMF	55-	85	(N- 40%)	21.7	NIL	2.79	NIL	59	9/30	.38	.18	12/31	NIL	NIL	YES				
2198	2198	Vitamin Shoppe	VSI	29.21	4	3	3	.80	50-	75	(70-155%)	12.6	NIL	2.31	NIL	66	9/30	.48	.40	12/31	NIL	NIL	YES				
	2597	VMware, Inc.	VMW	43.84	4	3	2	1.10	65-	100	(50-130%)	10.8	NIL	4.07	NIL	26	12/31	1.26	1.08	12/31	NIL	NIL	YES				
	937	Vodafone Group ADR(g)	VOD	29.24	-	3 -	-	NMF	40-	60	(35-105%)	33.6	5.0	.87	1.46	25	9/30	.38(p)	.42(p)	12/31	NIL	NIL	YES				
	938	Vonage Holdings	VG	4.51	3	4	1	1.20	6-	9	(35-100%)	14.5	NIL	.31	NIL	25	9/30	.06	.06	12/31	NIL	NIL	YES				
1545	1545	Vornado R'tly Trust	VNO	80.43	3	3	2	1.00	105-	155	(30- 95%)	24.2	3.1	3.33	2.52	28	9/30	1.05	.40	3/31	.63	.63	YES				
	1121	Vulcan Materials	VMC	91.01	2	3	2	1.20	75-	110	(N- 20%)	27.7	0.4	3.28	.40	27	12/31	♦.69	.29	12/31	.10	.06	YES				
	1005	WABCO Hldgs.	WBC	88.82	3	3	3	1.40	120-	180	(35-105%)	17.1	NIL	5.19	NIL	59	9/30	.67	1.37	12/31	NIL	NIL	YES				
	1202	WD-40 Co.	WDFC	104.02	1	2	3	.80	75-	100	(N- 10%)	31.2	1.6	3.33	1.68	5	11/30	.83	.73	3/31	▲.42	.38	YES				
918	918	WEC Energy Group	WEC	57.39	2	1	4	.70	50-	60	(N- 5%)	21.0	3.5	2.73	1.98	19	12/31	♦.57	.53	3/31	▲.495	.423	YES				
	553	WGL Holdings Inc.	WGL	67.90	▲ 2	1 3	.80	50-																			

## PAGE NUMBERS

Bold type refers to  
Ratings and Reports;  
italics to Selection  
& Opinion

PAGE NUMBERS		RANKS										Industry Rank										Do Options Trade?	
NAME OF STOCK		Recent Price		Safety		Technical		3-5 year Target Price Range and % appreciation potential		Current P/E Ratio		% Est'd Yield next 12 mos.		Est'd Earnings 12 mos. to 9-30-16		(P) Div'd next 12 mos.		LATEST RESULTS					
		Ticker Symbol	Timeliness		Beta									Qtr. Ended	Earns. Per sh.	Year Ago	Qtr. Ended	Latest Div'd	Year Ago				
2574	Western Union	WU	17.00	3	3	3	1.00	20- 30	(20- 75%)	9.7	3.8	1.75	.64	57	12/31	♦.42	.42	3/31	▲.16	.155	YES		
2665	317 WestJet Airlines Ltd. (TSX)	WJA.TO	15.49	4	3	3	.70	30- 50	(95-225%)	5.0	3.6	3.12	.56	33	12/31	.51	.70	3/31	.14	.14	YES		
2654	581 Westlake Chemical	WLK	43.50	4	3	3	1.50	80- 120	(85-175%)	7.7	1.7	5.62	.73	56	9/30	1.39	1.25	12/31	.182	.165	YES		
1960	Weston (George) (TSX)	WN.TO	103.02	3	2	2	.60	95- 130	(N- 25%)	16.2	1.7	6.37	1.70	24	9/30	1.66	1.59	12/31	.425	.42	YES		
1186	WestRock Co.	WRK	32.69	-	3	-	NMF	60- 90	(65-175%)	12.6	4.6	2.60	1.50	51	12/31	.59	.96	3/31	.375	NIL	YES		
★ ★	2575 WEX Inc.	WEX	59.49	3	3	3	1.30	110- 165	(85-175%)	11.2	NIL	5.31	NIL	57	12/31	♦1.15	.96	12/31	NIL	NIL	YES		
1172	Weyerhaeuser Co.	WY	23.08	▼4	3	3	1.10	35- 55	(50-140%)	16.1	5.4	1.43	1.24	61	12/31	♦.24	.31	12/31	.31	.29	YES		
1779	Whirlpool Corp.	WHR	137.04	3	3	4	1.30	200- 300	(45-120%)	9.4	2.6	14.60	3.60	58	12/31	4.10	3.53	12/31	.90	.75	YES		
1942	Whitewave Foods	WWAV	33.65	2	3	4	1.20	40- 60	(20- 80%)	24.9	NIL	1.35	NIL	10	9/30	.33	.27	12/31	NIL	NIL	YES		
2411	Whiting Petroleum	WLL	5.66	5	3	3	2.00	30- 40	(430-605%)	NMF	NIL	d1.28	NIL	96	9/30	d.37	1.32	12/31	NIL	NIL	YES		
1961	Whole Foods Market (NDQ)	WFM	29.06	▲3	3	3	.90	40- 60	(40-105%)	18.2	1.9	1.60	.54	24	9/30	.30	.35	3/31	▲.135	.13	YES		
2380	Wiley (John) & Sons	JWA	40.21	4	3	4	.90	55- 80	(35-100%)	13.4	3.0	2.99	1.20	73	10/31	.78	.90	3/31	.30	.29	YES		
609	Williams Cos.	WMB	11.98	-	3	-	1.60	30- 45	(150-275%)	12.4	21.4	.97	2.56	74	9/30	.22	.15	12/31	.64	.57	YES		
624	Williams Partners L.P.	WPZ	13.26	-	3	-	1.15	50- 75	(275-465%)	17.7	25.9	.75	3.44	91	9/30	d.32	.08	12/31	.85	1.072	YES		
2201	Williams-Sonoma	WSM	52.11	3	3	3	1.05	80- 115	(55-120%)	14.2	2.9	3.67	1.52	66	10/31	.77	.68	3/31	.35	.33	YES		
SEE FINAL SUPPLEMENT - PAGE 1831																							
1831	Willis Group Hldgs. PLC	WSH						5- 9	(N- 70%)	NMF	11.2	d2.09	.60	76	9/30	d.08	.06	3/31	.15	1.50	YES		
1036	Windstream Hldgs. (NDQ)	WIN	5.34	-	4	-	NMF			NMF	11.2	d1.44	NIL	22	10/31	d.41	d.33	12/31	NIL	NIL	YES		
2327	Winnebago	WGO	16.53	3	3	3	1.15	30- 45	(60-170%)	10.3	2.4	1.60	.40	21	11/30	.32	.37	3/31	.10	.09	YES		
793	Wintrust Financial (NDQ)	WTFC	39.86	3	3	2	1.00	55- 85	(40-115%)	12.9	1.2	3.09	.48	49	12/31	.64	.75	3/31	▲.12	.11	YES		
2161	Wolverine World Wide	WWW	16.50	4	3	4	.95	35- 45	(110-175%)	10.9	1.5	1.52	.24	40	9/30	.48	.63	3/31	.06	.06	YES		
139	Woodward, Inc. (NDQ)	WWD	43.79	3	3	3	1.25	60- 90	(35-105%)	15.4	1.0	2.85	.44	55	12/31	.56	.66	3/31	▲.11	.10	YES		
1823	Workday, Inc.	WDAY	48.90	3	3	2	1.20	110- 170	(125-250%)	NMF	NIL	d1.44	NIL	22	10/31	d.41	d.33	12/31	NIL	NIL	YES		
610	World Fuel Services	INT	36.32	3	3	4	1.05	55- 80	(50-120%)	11.8	0.7	3.09	.24	74	9/30	.71	.78	3/31	.06	.038	YES		
2351	World Wrestling Ent.	WWE	16.47	2	4	3	.95	20- 35	(20-115%)	35.8	2.9	.46	.48	53	9/30	.14	d.08	3/31	♦.12	.12	YES		
753	Worthington Inds.	WOR	28.38	2	3	3	1.30	45- 60	(60-110%)	18.7	2.7	1.52	.76	93	11/30	.36	.43	3/31	.19	.18	YES		
2371	Wyndham Worldwide	WYN	63.21	3	3	3	1.15	80- 120	(25-90%)	12.2	2.7	5.17	1.68	48	12/31	♦.98	.90	12/31	.42	.35	YES		
1041	2372 Wynn Resorts (NDQ)	WYNN	58.45	4	3	4	1.45	145- 215	(150-270%)	21.3	3.4	2.75	2.00	48	9/30	.73	1.88	12/31	.50	1.50	YES		
774	XL Group plc	XL	34.76	3	3	1	.95	40- 60	(15- 75%)	10.1	2.3	3.45	.80	6	12/31	♦.65	1.12	12/31	.20	.16	YES		
2641	XO Group	XOXO	14.54	3	3	2	.80	20- 30	(40-105%)	31.6	NIL	.46	NIL	30	9/30	.11	.08	12/31	NIL	NIL	YES		
2240	Xcel Energy Inc.	XEL	39.62	3	1	4	.65	35- 40	(N- N%)	17.9	3.4	2.21	1.36	36	12/31	.41	.39	3/31	.32	.30	YES		
634	140 Xcerra Corp. (NDQ)	XCRA	5.09	4	4	4	1.30	8- 13	(55-155%)	NMF	NIL	.02	NIL	55	10/31	d.02	.24	12/31	NIL	NIL	YES		
846	XenoPort, Inc. (NDQ)	XNPT	4.18	4	5	2	1.10	11- 20	(165-380%)	NMF	NIL	d1.30	NIL	42	9/30	d.38	.13	12/31	NIL	NIL	YES		
2663	1425 Xerox Corp.	XRK	8.76	4	3	3	1.20	11- 16	(25- 85%)	11.2	3.5	.78	.31	82	12/31	.27	.26	6/30	▲.078	.07	YES		
1386	Xilinx Inc. (NDQ)	XLNX	47.22	3	3	2	1.10	50- 75	(5- 60%)	23.1	2.6	2.04	1.24	45	12/31	.49	.62	3/31	.31	.29	YES		
1735	Xylem Inc.	XYL	36.71	3	3	3	1.05	40- 60	(10-65%)	18.8	1.7	1.95	.62	37	12/31	♦.63	.62	3/31	▲.155	.141	YES		
1042	2642 Yahoo! Inc. (NDQ)	YHOO	26.82	3	3	4	1.05	45- 65	(70-140%)	32.7	NIL	.82	NIL	30	12/31	.03	.17	12/31	NIL	NIL	YES		
1579	Yamana Gold	AUY	2.36	5	5	3	1.05	3- 5	(25-110%)	NMF	2.5	d.05	.06	90	9/30	d.02	.06	3/31	.015	.015	YES		
2033	2643 Yelp, Inc.	YELP	15.69	4	4	3	1.50	20- 40	(25-155%)	NMF	NIL	d.13	NIL	30	12/31	♦d.29	.42	12/31	NIL	NIL	YES		
1789	York Water Co. (The) (NDQ)	YORW	27.76	2	3	3	.70	20- 30	(N- 10%)	28.6	2.3	.97	.63	13	9/30	.28	.23	3/31	▲.156	.15	YES		
379	Yum! Brands	YUM	66.47	3	3	4	.90	85- 115	(30-75%)	20.3	2.8	3.28	1.88	11	12/31	♦.68	.61	3/31	.46	.41	YES		
964	Zayo Group Holdings	ZAYO	21.89	-	3	-	NMF	30- 40	(35- 85%)	NMF	NIL	.16	NIL	81	9/30	d.06	d.50	12/31	NIL	NIL	YES		
599	Zebra Techn. 'A' (NDQ)	ZBRA	54.68	3	3	3	1.20	105- 160	(90-195%)	9.2	NIL	5.92	NIL	43	9/30	1.39	.29	12/31	NIL	NIL	YES		
1824	Zendesk Inc.	ZEN	14.77	-	3	-	NMF	35- 55	(135-270%)	NMF	NIL	d.93	NIL	22	9/30	d.22	d.24	12/31	NIL	NIL	YES		
2644	Zillow Group 'C' (NDQ)	Z	16.20	3	3	3	1.25	20- 35	(25-115%)	NMF	NIL	d.63	NIL	30	9/30	d.15	d.13	12/31	NIL	NIL	YES		
197	Zimmer Biomet Hldgs.	ZBH	91.90	2	1	4	.95	125- 150	(35- 65%)	14.4	1.0	6.37	.90	3	12/31	1.97	.91	3/31	.22	.22	YES		
2529	Zions Bancorp. (NDQ)	ZION	20.77	3	3	3	1.30	30- 40	(45- 95%)	12.4	1.3	1.68	.26	54	12/31	.43	.33	3/31	♦.06	.04	YES		
1635	Zoetis Inc.	ZTS	39.86	2	3	1	1.00	45- 70	(15- 75%)	22.3	1.0	1.79	.38	35	9/30	.50	.41	3/31	▲.095	.083	YES		
1833	2226 Zumiez Inc. (NDQ)	ZUMZ	18.34	5	3	5	1.25	30- 50	(65-175%)	18.0	NIL	1.02	NIL	75	10/31	.36	.56	12/31	NIL	NIL	YES		
★ ★	2018 Zynga Inc. (NDQ)	ZNGA	2.03	3	5	1	.95	3- 6	(50-195%)	NMF	NIL	d.09	NIL	46	9/30	NIL	d.06	12/31	NIL	NIL	YES		

(a) All data adjusted for announced stock split or stock dividend.

See back page of Ratings &amp; Reports.

♦ New figure this week.

(b) Canadian Funds.

(d) Deficit.

(f) The estimate may reflect a probable increase or decrease.

If a dividend boost or cut is possible but not probable,

two figures are shown, the first is the more likely.

(g) Dividends subject to foreign withholding tax for U.S. residents.

(h) Est'd Earnings &amp; Est'd Dividends after conversion to U.S.

dollars at Value Line estimated translation rate.

(j) All Index data expressed in hundreds.

(p) 6 months

(q) Asset Value

N=Negative figure NA=Not available NMF=No meaningful figure

### INDUSTRIES, IN ORDER OF TIMELINESS RANK\*

Arrow (▲▼) before name indicates that a significant change in Rank has occurred since the preceding week.

1 IT Services	26 Computer Software	51▲ Packaging & Container	76 Telecom. Utility
2 Retail Building Supply	27 Building Materials	52 Toiletries/Cosmetics	77 Educational Services
3 Med Supp Invasive	28 R.E.I.T.	53 Entertainment	78 Foreign Electronics
4 Med Supp Non-Invasive	29 Aerospace/Defense	54 Bank	79 Insurance (Life)
5 Household Products	30 Internet	55 Precision Instrument	80 Engineering & Const
6 Insurance (Prop/Cas.)	31 Medical Services	56 Chemical (Specialty)	81 Telecom. Equipment
7▲ Advertising	32▲ Reinsurance	57 Financial Svcs. (Div.)	82 Office Equip/Supplies
8 Beverage	33 Air Transport	58 Diversified Co.	83 Heavy Truck & Equip
9 Information Services	34 Funeral Services	59 Auto Parts	84 Newspaper
10 Food Processing	35 Drug	60 Apparel	85 Power
11 Restaurant	36 Electric Utility (West)	61 Paper/Forest Products	86 Public/Private Equity
12 Furn/Home Furnishings	37▼ Machinery	62 Environmental	87 Petroleum (Integrated)
13 Water Utility	38 Industrial Services	63 Electronics	88 Maritime
14 Tobacco	39 Thrift	64 Computers/Peripherals	89 Metal Fabricating
15 Pharmacy Services	40▲ Shoe	65▲ Trucking	90 Precious Metals
16 Healthcare Information	41 Semiconductor Equip	66 Retail (Hardlines)	91 Pipeline MLPs
17 Human Resources	42 Biotechnology	67 Automotive	92 Chemical (Basic)
18 Retail Automotive	43 Wireless Networking	68 Electrical Equipment	93 Steel
19 Electric Util. (Central)	44 Electric Utility (East)	69 Cable TV	94 Oilfield Svcs/Equip.
20▲ Natural Gas Utility	45 Semiconductor	70 Railroad	95 Natural Gas (Div.)
21 Recreation	46 Entertainment Tech	71 Retail Store	96 Petroleum (Producing)
22 E-Commerce	47 Homebuilding	72 Investment Banking	97 Metals & Mining (Div.)
23 Brokers & Exchanges	48 Hotel/Gaming	73 Publishing	
24 Retail/Wholesale Food	49 Bank (Midwest)	74 Oil/Gas Distribution	
25 Telecom. Services	50 Chemical (Diversified)	75 Retail (Softlines)	

\*Based on the Timeliness™ ranks of the stocks in the industry

### Noteworthy Rank Changes

Listed below are some of the stocks whose Timeliness ranks have changed this week. We include mostly rank changes caused by fundamentals such as new earnings reports. Even when a significant change in earnings momentum has been forecast, the stock's rank will not be affected until the actual results, confirming that forecast, are reported. In most cases, we omit stocks that have been bumped up or down in rank by the dynamism of the ranking system.

### STOCKS MOVING UP IN TIMELINESS RANK

Stock Name	Old Rank	New Rank	Reason for Change	Earnings Est. 12 months to 9-30-16
Benchmark Electronics	4	3	Earnings turnaround. Dec. quarter 45¢ vs. year ago 43¢. Our estimate was 43¢.	\$1.70
BorgWarner	4	3	Surprise factor, earnings turnaround. Dec. quarter 75¢ vs. year ago 75¢. Our estimate was 69¢.	Under Review
Forward Air	3	2	Surprise factor, greater than average gain. Dec. quarter 76¢ vs. year ago 55¢. Our estimate was 66¢.	Under Review
Glatfelter (B)	4	3	Surprise factor, greater than average gain. Dec. quarter 78¢ vs. year ago 45¢. Our estimate was 41¢.	1.68
Mercury General	4	3	Earnings turnaround. Dec. quarter 52¢ vs. year ago d13¢. Our estimate was 48¢.	2.78
NETGEAR	3	2	Surprise factor, greater than average gain. Dec. period 74¢ vs. year ago 56¢. Our estimate was 59¢.	2.26
Nuance Communic.	3	2	Earnings turnaround, as forecast. Dec. quarter d4¢ vs. year ago d16¢. Our estimate was d4¢.	.05
Panera Bread Co.	3	2	Earnings turnaround. Dec. period \$1.88 vs. year ago \$1.87. Our estimate was \$1.79.	Under Review
Post Holdings (B)	2	1	Surprise factor, greater than average gain. Dec. quarter 52¢ vs. year ago d\$1.03. Our estimate was 33¢.	2.00
Sealed Air	3	2	Higher than expected earnings. Dec. quarter 62¢ vs. year ago 31¢. Our estimate was 44¢.	1.95
Selective Ins. Group	2	1	Surprise factor, greater than average gain. Dec. quarter 81¢ vs. year ago 72¢. Our estimate was 69¢.	2.81
Tootsie Roll Ind.	3	2	Surprise factor, greater than average gain. Dec. period 32¢ vs. year ago 28¢. Our estimate was 29¢.	1.12
Tyson Foods 'A' (B)	3	1	Surprise factor, greater than average gain. Dec. period \$1.15 vs. year ago 74¢. Our estimate was 85¢.	3.95
Whole Foods Market	4	3	Surprise factor, earnings turnaround. Dec. period 46¢ vs. year ago 46¢. Our estimate was 39¢.	1.60

February 19, 2016

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STOCKS MOVING DOWN IN TIMELINESS RANK

Stock Name	Old Rank	New Rank	Reason for Change	Earnings Est. 12 months to 9-30-16
Allegion plc	1	2	Dynamism of the ranking system.	
athenahealth	1	2	Dynamism of the ranking system.	
Cambrex Corp. (B)	1	2	Dynamism of the ranking system.	
Hanover Insurance	1	2	Dynamism of the ranking system.	
Insight Enterprises	2	3	Surprise factor, earnings reversal. Dec. quarter 50¢ vs. year ago 0¢. Our estimate was 60¢.	Under Review
Lennox Int'l	1	2	Surprise factor, decreasing profit growth. Dec. quarter \$1.11 vs. year ago \$1.00. Our estimate was \$1.28.	Under Review (A)
Mettler-Toledo Int'l	1	2	Dynamism of the ranking system.	
Moody's Corp.	2	3	Earnings reversal. Dec. quarter \$1.09 vs. year ago \$1.12. Our estimate was \$1.10.	\$4.95
Mosaic Company	4	5	Lower than expected earnings. Dec. quarter 44¢ vs. year ago 97¢. Our estimate was 87¢.	3.42
NCR Corp.	3	4	Surprise factor, earnings reversal. Management forecasts 30-35¢ for the Mar. quarter vs. year ago 43¢. Our estimate was 55¢.	2.72
Prudential Fin'l	3	4	Surprise factor, earnings reversal. Dec. quarter \$1.94 vs. year ago \$2.12. Our estimate was \$2.35.	9.64
Regal Beloit	3	4	Lower than expected earnings. Management forecasts \$4.80-\$5.20 for fiscal year 2016 vs. year ago \$5.18. Our estimate was \$5.80.	Under Review
Regeneron Pharmac.	1	2	Lower than expected earnings. Dec. quarter \$1.34 vs. year ago 96¢. Our estimate was \$1.73.	7.49

(A) New full-page report in this week's Ratings & Reports.  
(B) Supplementary report in this week's Ratings & Reports.

TIMELY STOCKS IN TIMELY INDUSTRIES

RANKS									RANKS								
Page No.	Industry (Industry Rank)	Recent Price	Timeliness	Safety	Beta	P/E Ratio	% Est'd Yield	Est'd. 3-5 Year Price Apprec.	Page No.	Industry (Industry Rank)	Recent Price	Timeliness	Safety	Beta	P/E Ratio	% Est'd Yield	Est'd. 3-5 Year Price Apprec.
IT Services (INDUSTRY RANK 1)									Med Supp Non-Invasive (INDUSTRY RANK 4)								
2600	Accenture Plc	93.32	2	1	3	1.00	17.9	2.4 N- 25%	199	Abaxis, Inc.	39.83	2	3	3	1.10	29.5	1.1 40-100%
2602	Automatic Data Proc.	80.67	2	1	3	0.95	23.9	2.9 30- 60%	203	Align Techn.	58.66	2	3	3	1.15	28.8	NIL 45-115%
2603	CACI Int'l	93.82	2	3	2	1.05	17.1	NIL N- 35%	204	AmerisourceBergen	84.75	2	1	1	0.80	14.6	1.6 35- 65%
2604	CSG Systems Int'l	37.46	1	3	2	1.00	21.0	2.0 N- 35%	206	Cantel Medical Corp.	58.00	1	3	3	1.05	38.4	0.2 N- 40%
2606	Cognizant Technology	52.33	2	2	3	1.05	15.8	NIL 45- 90%	207	Cardinal Health	76.65	2	1	2	0.85	16.8	2.3 65- 95%
2609	Fair Isaac	91.38	1	3	2	1.20	30.5	0.1 N- 35%	209	Charles River	68.16	1	3	2	1.10	19.4	NIL 30- 90%
2610	Fiserv Inc.	92.09	1	2	3	0.90	22.9	NIL N- 5%	212	DexCom Inc.	53.38	2	4	2	1.05	NMF	NIL 5- 80%
2611	Henry (Jack) & Assoc.	76.60	1	2	3	0.90	27.3	1.3 N- 10%	215	Hill-Rom Hldgs.	44.17	2	3	3	1.10	13.6	1.4 35-105%
2613	Manhattan Assoc.	46.23	1	3	1	1.05	31.7	NIL 10- 60%	216	Hologic, Inc.	32.89	1	3	2	1.10	31.3	NIL 5- 65%
2615	Paychex, Inc.	46.66	2	1	2	0.90	21.7	3.8 40- 70%	217	IDEXX Labs.	68.49	2	3	2	0.95	32.2	NIL N- 45%
2617	ServiceNow, Inc.	48.52	1	4	1	1.10	NMF	NIL N- 45%	220	Johnson & Johnson	101.97	2	1	3	0.75	17.7	3.1 25- 55%
Retail Building Supply (INDUSTRY RANK 2)									221	Masimo Corp.	35.22	2	3	2	1.10	21.9	NIL 40-115%
1139	Home Depot	113.86	1	1	3	0.95	18.9	2.2 15- 40%	225	Natus Medical	34.07	1	3	1	1.10	25.4	NIL 30-105%
1140	Lowe's Cos.	64.15	1	2	2	1.00	16.9	1.8 10- 55%	226	Omnicell, Inc.	27.47	2	3	3	1.05	28.0	NIL 45-100%
1142	Sherwin-Williams	252.43	2	1	3	0.90	20.4	1.3 10- 35%	228	Patterson Cos.	41.28	2	2	4	0.90	18.2	2.3 45- 95%
1144	Tractor Supply	81.45	2	2	3	1.00	24.8	1.1 35- 85%	229	ResMed Inc.	57.18	2	3	5	0.95	20.7	2.1 20- 85%
1145	Watsco, Inc.	110.18	2	2	2	0.90	20.7	3.1 15- 50%	230	Schein (Henry)	147.62	1	3	2	0.95	23.2	NIL 10- 65%
Med Supp Invasive (INDUSTRY RANK 3)									233	West Pharm. Svcs.	55.54	2	2	3	0.85	26.7	0.9 10- 45%
173	ABIOMED Inc.	71.00	2	3	3	1.20	72.4	NIL 35-105%	Household Products (INDUSTRY RANK 5)								
175	Bard (C.R.)	181.44	2	1	3	0.80	18.6	0.6 15- 40%	1188	Central Garden & Pet	14.15	2	3	3	0.85	16.6	NIL 5- 75%
177	Becton, Dickinson	134.34	1	1	2	0.80	16.0	0.1 25- 55%	1189	Church & Dwight	88.49	2	1	4	0.70	25.5	1.6 N- 15%
178	Boston Scientific	16.87	2	3	2	1.00	26.0	NIL 50-135%	1190	Clorox Co.	128.68	1	2	3	0.65	26.1	2.4 N- 10%
180	CryoLife Inc.	9.30	2	3	2	1.10	84.5	1.3 70-170%	1195	Kimberly-Clark	130.79	1	1	3	0.65	29.7	2.7 N- 5%
182	Edwards Lifesciences	76.34	1	3	3	0.85	30.2	NIL 25- 85%	1200	Spectrum Brands	95.81	2	3	3	1.00	20.2	1.6 5- 50%
183	Globus Medical	22.49	1	3	1	0.85	19.4	NIL 10- 80%	1202	WD-40 Co.	104.02	1	2	3	0.80	31.2	1.6 N- N%
184	ICU Medical	87.51	1	3	1	0.75	26.3	NIL 5- 50%	Insurance (Prop/Cas.) (INDUSTRY RANK 6)								
186	Integra LifeSciences	55.94	2	3	1	0.95	18.6	NIL 45-115%	758	Amer. Financial Group	66.49	1	2	2	0.90	11.7	1.7 15- 50%
187	Intuitive Surgical	508.82	2	3	3	0.90	27.5	NIL 25- 85%	759	Arch Capital Group	67.87	2	1	2	0.70	12.5	NIL 10- 35%
190	NuVasive, Inc.	41.74	2	3	1	1.20	46.4	NIL 45-105%	760	Berkley (W.R.)	51.39	2	1	2	0.80	14.7	0.9 15- 45%
192	STERIS plc	66.47	1	2	2	1.05	17.3	1.5 35- 90%	755	Chubb Ltd.	110.58	2	1	2	0.90	10.7	2.4 20- 45%
193	Stryker Corp.	96.64	2	1	4	0.90	20.9	1.6 10- 35%	764	Cincinnati Financial	61.24	2	2	3	0.90	20.1	3.1 N- 30%
195	Teleflex Inc.	134.03	2	2	3	0.85	24.2	1.0 N- 10%	765	Erie Indemnity	96.57	2	2	3	0.80	26.5	3.0 N- 10%
197	Zimmer Biomet Hldgs.	91.90	2	1	4	0.95	14.4	1.0 35- 65%	766	Hanover Insurance	80.89	2	2	3	0.90	13.7	2.3 10- 50%
									767	Markel Corp.	830.45	1	1	3	0.70	33.2	NIL N- 20%
									771	RLI Corp.	60.79	2	2	3	0.85	27.0	1.3 N- N%
									772	Selective Ins. Group	33.12	1	3	3	0.95	11.8	1.8 N- 50%
									Advertising (INDUSTRY RANK 7)								
									2391	Interpublic Group	20.50	1	3	2	1.25	15.8	2.7 20- 95%
									2392	Lamar Advertising	50.13	2	3	2	1.20	16.7	6.1 50-120%
									2395	Omnicom Group	71.62	2	2	3	1.00	15.4	3.0 25- 90%
									2396	WPP PLC ADR	100.37	2	2	2	1.15	14.0	3.5 45- 95%

**TIMELY STOCKS IN TIMELY INDUSTRIES**

Page No.	Industry (Industry Rank)	Recent Price	RANKS					Est'd. 3-5 Year Price Apprec.	Page No.	Industry (Industry Rank)	Recent Price	RANKS					Est'd. 3-5 Year Price Apprec.		
			Timeliness	Safety	Technical	Beta	Current P/E Ratio					% Est'd Yield	Timeliness	Safety	Technical	Beta		Current P/E Ratio	% Est'd Yield
Beverage (INDUSTRY RANK 8)																			
1965	Brown-Forman 'B'	95.86	2	1	3	0.90	25.8	1.4	30- 55%	1637	AMN Healthcare	23.04	1	3	2	1.20	14.2	NIL	50-140%
1967	Coca-Cola Bottling	163.93	1	3	2	0.70	27.9	0.6	N- 55%	1639	Cross Country Health.	11.43	2	4	1	1.25	19.7	NIL	65-160%
1969	Constellation Brands	136.09	1	3	3	1.00	24.5	1.0	N- 30%	1640	Heidrick & Struggles	23.20	2	3	2	1.05	21.7	2.2	10- 70%
1973	Dr Pepper Snapple	90.32	1	2	3	0.75	21.7	2.2	N- 20%	1641	Inspirety Inc.	42.46	2	3	2	1.05	17.8	2.1	40-110%
1975	Monster Beverage	118.91	2	3	2	0.85	32.2	NIL	N- 45%	1645	On Assignment	31.58	1	3	1	1.45	17.1	NIL	40-120%
1976	National Beverage	35.78	1	3	2	0.75	29.3	NIL	10- 40%	Retail Automotive (INDUSTRY RANK 18)									
1978	Primo Water Corp.	8.82	2	4	4	0.70	49.0	NIL	15- 70%	2122	AutoZone Inc.	697.58	1	3	3	0.70	17.1	NIL	N- 30%
Information Services (INDUSTRY RANK 9)																			
444	CoreLogic	33.20	2	3	3	1.35	24.1	NIL	35-110%	2124	Copart, Inc.	34.11	2	2	2	0.90	17.5	NIL	45-105%
447	Equifax, Inc.	93.22	1	2	2	0.95	19.5	1.4	20- 60%	2127	Monro Muffler Brake	62.88	2	3	2	0.75	27.7	1.0	35-100%
448	FactSet Research	137.59	2	2	2	1.00	22.0	1.3	10- 45%	2128	O'Reilly Automotive	236.29	1	2	3	0.75	24.1	NIL	N- 35%
450	Gartner Inc.	80.94	1	2	2	0.90	30.1	NIL	55-105%	Electric Util. (Central) (INDUSTRY RANK 19)									
452	McGraw Hill Fin'l	83.59	2	2	3	1.15	18.1	1.7	45- 90%	903	Alliant Energy	68.35	2	2	3	0.80	17.8	3.4	N- 15%
454	Nielsen Hldgs. plc	45.13	2	2	3	0.90	16.1	2.5	45- 90%	905	Amer. Elec. Power	62.37	2	2	4	0.70	16.9	3.6	N- 10%
455	Thomson Reuters	49.45	2	2	3	0.70	22.3	2.7	N- 30%	906	CMS Energy Corp.	39.87	2	2	4	0.75	20.2	3.1	N- N%
456	Verisk Analytics	67.77	1	2	2	0.75	27.1	NIL	25- 70%	909	DTE Energy	86.85	2	2	3	0.75	18.1	3.5	N- 10%
Food Processing (INDUSTRY RANK 10)																			
1903	B&G Foods	35.44	2	3	3	0.80	18.7	4.0	15- 55%	914	MGE Energy	51.36	1	1	3	0.70	21.8	2.3	N- 5%
1906	Cal-Maine Foods	48.56	2	3	3	1.00	6.6	6.2	N- 35%	918	WEC Energy Group	57.39	2	1	4	0.70	21.0	3.5	N- 5%
1908	Campbell Soup	57.21	2	2	4	0.65	21.2	2.2	N- 20%	Natural Gas Utility (INDUSTRY RANK 20)									
1909	ConAgra Foods	39.70	2	1	2	0.75	16.2	2.5	15- 40%	543	Almos Energy	70.80	2	1	4	0.80	21.8	2.4	N- 25%
1913	Fresh Del Monte Prod.	40.04	2	3	3	0.85	15.1	1.2	N- 25%	544	Chesapeake Utilities	66.37	1	2	4	0.65	22.2	1.8	N- 15%
1914	Gen'l Mills	55.94	2	1	3	0.70	19.4	3.2	5- 35%	553	WGL Holdings Inc.	67.90	2	1	3	0.80	21.9	2.9	N- N%
1918	Hormel Foods	41.43	1	1	3	0.75	27.6	1.4	N- 20%	Recreation (INDUSTRY RANK 21)									
1919	Ingredion Inc.	102.99	2	3	3	1.05	17.4	1.8	N- 30%	2303	Brunswick Corp.	38.66	2	3	2	1.55	11.6	1.6	70-145%
1920	J&J Snack Foods	105.04	2	2	2	0.85	25.9	1.5	5- 45%	2306	Carnival Corp.	42.97	2	3	2	1.00	12.6	2.8	30- 85%
1923	Lancaster Colony	101.09	2	1	3	0.80	24.2	2.0	N- 10%	2311	Hasbro, Inc.	71.94	2	3	3	0.90	19.5	2.8	N- 45%
1924	McCormick & Co.	88.24	2	1	3	0.80	24.0	1.9	10- 30%	2312	IMAX Corp.	26.45	2	3	2	1.25	20.5	NIL	90-200%
1926	Mondelez Int'l	37.05	2	2	2	1.05	18.8	1.9	10- 50%	2315	Norwegian Cruise Line	39.18	2	3	1	1.15	13.6	NIL	55-130%
1930	Pinnacle Foods	39.89	2	3	3	0.80	19.8	2.6	N- 25%	2318	Pool Corp.	77.28	1	3	2	1.00	23.7	1.3	N- 35%
1931	Post Holdings	62.68	1	3	2	1.00	31.3	NIL	N- 30%	2320	Royal Caribbean	68.02	1	3	1	1.35	24.6	2.2	60-145%
1933	Saputo Inc.	37.72	2	1	3	0.70	23.0	1.4	N- 5%	2322	Six Flags Entertainment	47.75	2	3	2	0.95	29.1	4.9	5- 55%
1935	Smucker (J.M.)	127.35	1	1	3	0.75	21.4	2.2	5- 30%	2323	Smith & Wesson Hldg.	21.04	1	3	2	1.10	13.8	NIL	N- 20%
1936	Snyder's-Lance	29.31	2	3	2	0.75	23.4	2.2	N- 55%	2326	Thor Inds.	48.70	2	3	3	1.20	11.1	2.5	35- 95%
1938	Toolsie Roll Ind.	31.82	2	1	3	0.85	28.4	1.1	10- 25%	E-Commerce (INDUSTRY RANK 22)									
1939	TreeHouse Foods	77.58	2	3	4	0.65	23.6	NIL	10- 60%	1811	Check Point Software	76.69	2	2	3	0.90	18.9	NIL	10- 50%
1940	Tyson Foods 'A'	60.85	1	3	3	0.80	15.4	1.0	N- 50%	1812	Cornerstone OnDemand	24.53	2	4	3	1.15	NMF	NIL	65-185%
1942	Whitewave Foods	33.65	2	3	4	1.20	24.9	NIL	20- 80%	1815	Equinix, Inc.	265.05	2	3	2	1.00	57.4	2.6	N- 30%
Restaurant (INDUSTRY RANK 11)																			
355	Buffalo Wild Wings	140.00	2	3	4	0.85	22.5	NIL	40-105%	1820	salesforce.com	57.33	1	3	1	1.20	NMF	NIL	40-110%
356	Cheesecake Factory	46.99	2	3	5	0.85	19.1	1.8	15- 80%	1822	Splunk Inc.	31.92	2	3	3	1.60	NMF	NIL	135-290%
358	Cracker Barrel	131.43	2	2	5	0.80	17.5	3.3	N- 5%	Brokers & Exchanges (INDUSTRY RANK 23)									
360	DineEquity Inc.	82.12	2	3	4	1.05	13.3	4.5	5- 50%	1791	BGC Partners	8.48	2	4	2	1.20	10.0	6.6	N- 65%
361	Domino's Pizza	105.62	1	3	3	0.85	27.7	1.2	N- N%	1795	Intercontinental Exch.	242.80	1	2	3	0.85	18.1	1.4	25- 85%
362	Dunkin' Brands Group	40.84	2	3	4	0.65	19.2	2.9	45-120%	1798	Nasdaq, Inc.	61.49	1	3	3	1.05	16.9	1.6	N- 45%
364	Jack in the Box	72.13	2	3	4	0.85	20.6	1.7	N- 25%	Retail/Wholesale Food (INDUSTRY RANK 24)									
366	McDonald's Corp.	117.01	2	1	3	0.70	21.6	3.0	N- 10%	1944	Casey's Gen'l Stores	112.32	1	3	3	0.75	19.4	0.8	N- 20%
367	Panera Bread Co.	184.72	2	2	3	0.85	29.2	NIL	15- 55%	1945	Core-Mark Holding	74.77	2	3	3	0.75	27.6	0.9	N- 15%
369	Popeyes LA Kitchen	58.69	1	3	3	0.75	27.0	NIL	N- 45%	1950	Kroger Co.	36.73	1	2	2	0.80	16.8	1.3	10- 50%
375	Sonic Corp.	25.56	1	3	2	1.05	20.1	1.7	15- 55%	1951	Loblaw Cos. Ltd.	63.84	2	2	2	0.65	19.3	1.6	25- 70%
376	Starbucks Corp.	54.42	1	1	3	0.95	28.6	1.5	40- 65%	1952	Metro Inc.	41.05	1	2	3	0.55	18.7	1.4	N- 10%
377	Texas Roadhouse	36.07	2	3	3	0.95	22.4	1.9	10- 65%	1956	Sysco Corp.	42.61	2	1	3	0.70	21.2	2.9	15- 40%
378	Wendy's Company	9.71	2	3	2	1.00	27.0	2.5	15- 75%	Telecom. Services (INDUSTRY RANK 25)									
Furn/Home Furnishings (INDUSTRY RANK 12)																			
1147	Bassett Furniture	27.71	2	4	3	0.95	18.9	1.3	N- 45%	924	Dycorn Inds.	48.88	1	3	2	1.30	12.7	NIL	95-195%
1148	Culp Inc.	23.41	2	3	3	0.95	12.7	1.2	50-115%	925	Gen'l Communic. 'A'	17.08	2	4	1	1.15	28.5	NIL	5- 75%
1150	Fortune Brands Home	45.61	1	3	2	1.25	18.9	1.4	45-110%	928	j2 Global	63.51	1	3	1	0.90	19.2	2.1	20- 75%
1154	La-Z-Boy Inc.	20.03	2	3	3	1.25	12.2	2.0	100-175%	930	Shenandoah Telecom.	21.17	2	3	3	1.05	25.5	1.2	N- 40%
1155	Leggett & Platt	40.96	2	2	3	1.10	18.2	3.1	20- 60%	932	T-Mobile US	33.89	2	3	2	0.95	26.3	NIL	20- 90%
1158	Mohawk Inds.	153.70	2	3	2	1.20	13.5	NIL	40-105%	Computer Software (INDUSTRY RANK 26)									
1160	Tempur Sealy Int'l	53.58	2	4	2	1.30	24.5	NIL	5- 70%	2577	Adobe Systems	73.85	1	3	2	1.10	42.9	NIL	40-115%
Water Utility (INDUSTRY RANK 13)																			
1781	Amer. States Water	46.23	2	2	4	0.75	27.5	2.0	N- 20%	2581	Cadence Design Sys.	19.82	2	3	2	1.10	16.8	NIL	25- 75%
1782	Amer. Water Works	65.72	1	3	4	0.70	23.9	2.2	N- 30%	2584	Fortinet Inc.	23.84	2	3	2	1.15	99.3	NIL	110-215%
1783	Aqua America	32.02	2	2	3	0.75	24.1	2.3	N- 40%	2585	Intuit Inc.	90.13	2	2	2	1.10	25.3	1.3	40- 65%
1785	Conn. Water Services	42.17	2	3	4	0.60	20.5	2.6	N- 20%	2587	Microsoft Corp.	49.28	2	1	2	1.00	17.5	2.9	30- 50%
1789	York Water Co. (The)	27.76	2	3	3	0.70	28.6	2.3	N- 10%	2588	Nuance Communic.	16.15	2	3	1	1.10	NMF	NIL	55-115%
Tobacco (INDUSTRY RANK 14)																			
1989	Altria Group	60.45	2	2	3	0.65	20.1	3.7	N- 25%	2591	Palo Alto Networks	118.06	1	3	1	0.95	NMF	NIL	75-160%
1992	Reynolds American	47.69	1	2	3	0.65	23.0	3.0	N- 15%	2592	Red Hat, Inc.	61.60	1	3	1	1.15	55.5	NIL	40-105%
Pharmacy Services (INDUSTRY RANK 15)																			
967	CVS Health	90.51	2	1	2	0.85	15.9	1.9	50- 80%	Building Materials (INDUSTRY RANK 27)									
968	Express Scripts	67.16	2	3	1	1.00	22.8	NIL	50-115%	1103	Amer. Woodmark	58.82	1	3	1	1.15	15.9	NIL	20- 60%



# Timely Stocks

## Stocks Ranked 1 (Highest) for Relative Price Performance (Next 12 Months)

Page No.	Stock Name	Recent Price	Ticker	Technical Safety	Ranks	Current P/E	% Est'd Yield	Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Ticker	Technical Safety	Ranks	Current P/E	% Est'd Yield	Industry Group	Industry Rank
1637	AMN Healthcare	AHS	23.04	3	2	14.2	NIL	Human Resources	17	184	ICU Medical	ICUI	87.51	3	1	26.3	NIL	Med Supp Invasive	3
1302	Acuity Brands	AYI	180.01	3	2	25.9	0.3	Electrical Equipment	68	1363	Integrated Device	IDTI	17.33	3	1	13.9	NIL	Semiconductor	45
2577	Adobe Systems	ADBE	73.85	3	2	42.9	NIL	Computer Software	26	1795	Intercontinental Exch.	ICE	242.80	2	3	18.1	1.4	Brokers & Exchanges	23
2620	Alphabet Inc.	GOOG	678.11	2	2	22.0	NIL	Internet	30	2391	Interpublic Group	IPG	20.50	3	2	15.8	2.7	Advertising	7
2621	Amazon.com	AMZN	482.07	3	1	98.4	NIL	Internet	30	928	j2 Global	JCOM	63.51	3	1	19.2	2.1	Telecom. Services	25
758	Amer. Financial Group	AFG	66.49	2	2	11.7	1.7	Insurance (Prop/Cas.)	6	1195	Kimberly-Clark	KMB	130.79	1	3	29.7	2.7	Household Products	5
583	Amer. Tower 'A'	AMT	85.57	2	1	36.9	2.4	Wireless Networking	43	1950	Kroger Co.	KR	36.73	2	2	16.8	1.3	Retail/Wholesale Food	24
1782	Amer. Water Works	AWK	65.72	3	4	23.9	2.2	Water Utility	13	1140	Lowe's Cos.	LOW	64.15	2	2	16.9	1.8	Retail Building Supply	2
1103	Amer. Woodmark	AMWD	58.62	3	1	15.9	NIL	Building Materials	27	914	MGE Energy	MGEE	51.36	1	3	21.8	2.3	Electric Util. (Central)	19
977	Autoliv, Inc.	ALV	97.97	3	2	13.7	2.3	Auto Parts	59	2613	Manhattan Assoc.	MANH	46.23	3	1	31.7	NIL	IT Services	1
2122	AutoZone Inc.	AZO	697.58	3	3	17.1	NIL	Retail Automotive	18	767	Markel Corp.	MKL	830.45	1	3	33.2	NIL	Insurance (Prop/Cas.)	6
177	Becton, Dickinson	BDX	134.34	1	2	16.0	2.1	Med Supp Invasive	3	1952	Metro Inc.	MRU.TO	41.05	2	3	18.7	1.4	Retail/Wholesale Food	24
1356	Broadcom Ltd.	AVGO	119.71	3	2	20.3	1.5	Semiconductor	45	1131	NVR, Inc.	NVR	1550.13	2	3	14.9	NIL	Homebuilding	47
2604	CSG Systems Int'l	CSGS	37.46	3	2	21.0	2.0	IT Services	1	1798	Nasdaq, Inc.	NDAQ	61.49	3	3	16.9	1.6	Brokers & Exchanges	23
206	Cantel Medical Corp.	CMN	58.00	3	3	38.4	0.2	Med Supp Non-Invasive	4	1976	National Beverage	FIZZ	35.78	3	2	29.3	NIL	Beverage	8
1944	Casey's Gen'l Stores	CASY	112.32	3	3	19.4	0.8	Retail/Wholesale Food	24	225	Natus Medical	BABY	34.07	3	1	25.4	NIL	Med Supp Non-Invasive	4
209	Charles River	CRL	68.16	3	2	19.4	NIL	Med Supp Non-Invasive	4	2189	Nautlius Inc.	NLS	18.45	4	3	17.9	NIL	Retail (Hardlines)	66
1745	Chemed Corp.	CHE	130.37	3	2	19.8	0.7	Diversified Co.	58	2159	NIKE, Inc. 'B'	NKE	55.68	1	3	25.3	1.1	Shoe	40
544	Chesapeake Utilities	CPK	66.37	2	4	22.2	1.8	Natural Gas Utility	20	1626	Novo Nordisk ADR	NVO	46.58	2	2	20.5	1.9	Drug	35
387	Cintas Corp.	CTAS	83.49	2	2	20.8	1.3	Industrial Services	38	1372	NVIDIA Corp.	NVDA	25.49	3	2	20.1	1.8	Semiconductor	45
1190	Clorox Co.	CLX	128.68	2	3	26.1	2.4	Household Products	5	1645	On Assignment	ASGN	31.58	3	1	17.1	NIL	Human Resources	17
1967	Coca-Cola Bottling	COKE	163.93	3	2	27.9	0.6	Beverage	8	2128	O'Reilly Automotive	ORLY	236.29	2	3	24.1	NIL	Retail Automotive	18
1969	Constellation Brands	STZ	136.09	3	3	24.5	1.0	Beverage	8	2591	Palo Alto Networks	PANW	118.06	3	1	NMF	NIL	Computer Software	26
586	Crown Castle Int'l	CCI	82.20	3	3	55.2	4.3	Wireless Networking	43	2318	Pool Corp.	POOL	77.28	3	2	23.7	1.3	Recreation	21
2624	Ctrip.com Int'l ADR	CTRP	36.57	3	1	76.2	NIL	Internet	30	369	Popeyes LA Kitchen	PLKI	58.69	3	3	27.0	NIL	Restaurant	11
1748	Danaher Corp.	DHR	85.19	2	2	18.0	0.6	Diversified Co.	58	1931	Post Holdings	POST	62.68	3	2	31.3	NIL	Food Processing	10
361	Domino's Pizza	DPZ	105.62	3	3	27.7	1.2	Restaurant	11	1538	Public Storage	PSA	232.92	1	3	35.7	3.0	R.E.I.T.	28
1973	Dr Pepper Snapple	DPS	90.32	2	3	21.7	2.2	Beverage	8	2592	Red Hat, Inc.	RHT	61.60	3	1	55.5	NIL	Computer Software	26
924	Dycor Inds.	DY	48.88	3	2	12.7	NIL	Telecom. Services	25	1992	Reynolds American	RAI	47.69	2	3	23.0	3.0	Tobacco	14
182	Edwards Lifesciences	EW	76.34	3	3	30.2	NIL	Med Supp Invasive	3	2220	Ross Stores	ROST	54.53	2	3	20.7	1.0	Retail (Softlines)	75
2008	Electronic Arts	EA	58.25	3	3	17.2	NIL	Entertainment Tech	46	2320	Royal Caribbean	RCL	68.02	3	1	24.6	2.2	Recreation	21
447	Equifax, Inc.	EFX	93.22	2	2	19.5	1.4	Information Services	9	1820	salesforce.com	CRM	57.33	3	1	NMF	NIL	E-Commerce	22
1523	Essex Property Trust	ESS	193.49	3	2	43.9	3.3	R.E.I.T.	28	230	Schein (Henry)	HSIC	147.62	3	2	23.2	NIL	Med Supp Non-Invasive	4
2628	Facebook Inc.	FB	99.54	3	3	61.8	NIL	Internet	30	772	Selective Ins. Group	SIGI	33.12	3	3	11.8	1.8	Insurance (Prop/Cas.)	6
2609	Fair Isaac	FICO	91.38	3	2	30.5	0.1	IT Services	1	2617	ServiceNow, Inc.	NOW	48.52	4	1	NMF	NIL	IT Services	1
1524	Federal Rlty. Inv. Trust	FRT	146.77	2	3	48.9	2.6	R.E.I.T.	28	2323	Smith & Wesson Hldg.	SWHC	21.04	3	2	13.8	NIL	Recreation	21
2610	Fiserv Inc.	FISV	92.09	2	3	22.9	NIL	IT Services	1	1727	Smith (A.O.)	AOS	63.74	3	2	19.3	1.5	Machinery	37
1150	Fortune Brands Home	FBHS	45.61	3	2	18.9	1.4	Furn/Home Furnishings	12	1935	Smucker (J.M.)	SJM	127.35	1	3	21.4	2.2	Food Processing	10
450	Gartner Inc.	IT	80.94	2	2	30.1	NIL	Information Services	9	1728	Snap-on Inc.	SNA	135.78	2	1	15.5	1.8	Machinery	37
394	Genpact Limited	G	25.04	2	3	21.4	NIL	Industrial Services	38	375	Sonic Corp.	SONC	25.56	3	2	20.1	1.7	Restaurant	11
2555	Global Payments	GPN	52.47	2	1	22.2	0.1	Financial Svcs. (Div.)	57	376	Starbucks Corp.	SBUX	54.42	1	3	28.6	1.5	Restaurant	11
183	Globus Medical	GMED	22.49	3	1	19.4	NIL	Med Supp Invasive	3	192	STERIS plc	STE	66.47	2	2	17.3	1.5	Med Supp Invasive	3
1334	Harris Corp.	HRS	72.73	2	3	12.5	2.8	Electronics	63	1731	Toro Co.	TTC	71.82	3	3	18.1	1.7	Machinery	37
310	Hawaiian Hldgs.	HA	33.39	4	3	10.9	NIL	Air Transport	33	727	TransDigm Group	TDG	187.29	3	3	18.7	NIL	Aerospace/Defense	29
396	Healthcare Svcs.	HCSG	33.75	2	3	31.3	2.3	Industrial Services	38	1940	Tyson Foods 'A'	TSN	60.85	3	3	15.4	1.0	Food Processing	10
2611	Henry (Jack) & Assoc.	JKHY	76.60	2	3	27.3	1.3	IT Services	1	2197	Ulta Salon	ULTA	151.98	3	2	28.2	NIL	Retail (Hardlines)	66
216	Hologic, Inc.	HOLX	32.89	3	2	31.3	NIL	Med Supp Non-Invasive	4	2370	Vail Resorts	MTN	116.39	3	2	30.0	2.1	Hotel/Gaming	48
1139	Home Depot	HD	113.86	1	3	18.9	2.2	Retail Building Supply	2	2640	VeriSign Inc.	VRNS	72.62	3	2	23.7	NIL	Internet	30
1918	Home! Foods	HRL	41.43	1	3	27.6	1.4	Food Processing	10	456	Verisk Analytics	VRSK	67.77	2	2	27.1	NIL	Information Services	9
714	Huntington Ingalls	HII	125.46	3	3	13.7	1.6	Aerospace/Defense	29	1202	WD-40 Co.	WDFC	104.02	2	3	31.2	1.6	Household Products	5

### ■ Newly added this week.

#### Rank 1 Deletions:

Allegion plc; athenahealth; Cambrex Corp.; Hanover Insurance; Lennox Int'l; Mettler-Toledo Int'l; Regeneron Pharmac.

#### Rank removed—see supplement or report:

None.



Continued from preceding page

### TIMELY STOCKS

Stocks Ranked 2 (Above Average) for Relative Price Performance in the Next 12 Months

Page No.	Stock Name	Recent Price Ticker	R a n k s			Current P/E Ratio	% Est'd Yield	Industry Group	Industry Rank	Page No.	Stock Name	Recent Price Ticker	R a n k s			Current P/E Ratio	% Est'd Yield	Industry Group	Industry Rank
			Technical Safety	Technical	P/E														
1702	AAON, Inc.	AAON	20.10	3	1	21.6	1.1	Machinery	37	1812	Comerstone OnDemand ▲	CSOD	24.53	4	3	NMF	NIL	E-Commerce	22
2329	AMC Networks	AMCX	63.86	3	2	11.7	NIL	Entertainment	53	2137	Costco Wholesale	COST	147.94	1	2	26.4	1.1	Retail Store	71
199	Abaxis, Inc.	ABAX	39.83	3	3	29.5	1.1	Med Supp Non-Invasive	4	358	Cracker Barrel	CBRL	131.43	2	5	17.5	3.3	Restaurant	11
1607	AbbVie Inc.	ABBV	53.48	2	3	11.0	4.3	Drug	35	1400	Cray Inc.	CRAY	35.11	4	3	29.3	NIL	Computers/Peripherals	64
173	ABIOMED Inc.	ABMD	71.00	3	3	72.4	NIL	Med Supp Invasive	3	1639	Cross Country Health.	CCRN	11.43	4	1	19.7	NIL	Human Resources	17
2600	Accenture Plc	ACN	93.32	1	3	17.9	2.4	IT Services	1	1178	Crown Holdings	CCK	44.79	3	3	13.8	NIL	Packaging & Container	51
2004	Activision Blizzard	ATVI	28.81	3	2	27.2	0.9	Entertainment Tech	46	180	CryoLife Inc.	CRY	9.30	3	2	84.5	1.3	Med Supp Invasive	3
795	Aetna Inc.	AET	97.20	2	2	12.4	1.0	Medical Services	31	1148	Culp Inc.	CFI	23.41	3	3	12.7	1.2	Furn/Home Furnishings	12
2441	Air Products & Chem.	APD	132.46	1	5	17.5	2.4	Chemical (Diversified)	50	1709	Curtiss-Wright	CW	64.85	3	3	15.6	0.8	Machinery	37
302	Alaska Air Group	ALK	65.63	3	2	9.2	1.7	Air Transport	33	909	DTE Energy	DTE	86.85	2	3	18.1	3.5	Electric Util. (Central)	19
203	Align Techn.	ALGN	58.66	3	3	28.8	NIL	Med Supp Non-Invasive	4	802	DaVita HealthCare	DVA	62.25	2	3	15.9	NIL	Medical Services	31
1320	Allergion plc ▼	ALLE	54.28	3	1	18.0	0.9	Electronics	63	308	Delta Air Lines	DAL	41.98	3	2	6.5	1.6	Air Transport	33
903	Alliant Energy	LNT	68.35	2	3	17.8	3.4	Electric Util. (Central)	19	212	DexCom Inc.	DXCM	53.38	4	2	NMF	NIL	Med Supp Non-Invasive	4
1989	Altria Group	MO	60.45	2	3	20.1	3.7	Tobacco	14	360	DineEquity Inc.	DIN	82.12	3	4	13.3	4.5	Restaurant	11
796	Amedisys, Inc.	AMED	33.01	4	3	19.1	NIL	Medical Services	31	2332	Disney (Walt)	DIS	92.32	1	2	15.8	1.5	Entertainment	53
905	Amer. Elec. Power	AEP	62.37	2	4	16.9	3.6	Electric Util. (Central)	19	2139	Dollar General	DG	69.52	3	3	16.1	1.4	Retail Store	71
1781	Amer. States Water	AWR	46.23	2	4	27.5	2.0	Water Utility	13	143	Dominion Resources	D	70.43	2	5	20.7	4.1	Electric Utility (East)	44
204	AmerisourceBergen	ABC	84.75	1	1	14.6	1.6	Med Supp Non-Invasive	4	162	Douglas Dynamics	PLOW	19.06	3	3	12.0	4.7	Heavy Truck & Equip	83
831	Amgen	AMGN	143.16	1	2	13.9	2.8	Biotechnology	42	985	Drew Industries	DW	54.47	3	3	15.6	NIL	Auto Parts	59
2537	Aon plc	AON	92.88	1	4	17.2	1.3	Financial Svcs. (Div.)	57	362	Dunkin' Brands Group	DNKN	40.84	3	4	19.2	2.9	Restaurant	11
1174	AptarGroup	ATR	74.41	2	2	22.8	1.6	Packaging & Container	51	562	Ecoball Inc.	ECL	107.20	1	3	22.4	1.3	Chemical (Specialty)	56
1783	Aqua America	WTR	32.02	2	3	24.1	2.3	Water Utility	13	710	Elbit Systems	ESLT	83.91	3	3	18.0	1.8	Aerospace/Defense	29
759	Arch Capital Group	ACGL	67.87	1	2	12.5	NIL	Insurance (Prop/Cas.)	6	1418	Electr. for Imaging	EFIL	37.09	3	1	20.6	NIL	Office Equip/Supplies	82
2020	Aspen Insurance Hldgs. ▲	AHL	42.22	2	2	8.4	2.0	Reinsurance	32	389	EMCOR Group	EME	43.13	2	2	14.5	0.7	Industrial Services	38
2538	Assurant Inc. ▲	AIZ	76.49	2	2	13.3	2.6	Financial Svcs. (Div.)	57	1815	Equinix, Inc.	EQIX	265.05	3	2	57.4	2.6	E-Commerce	22
822	athenahealth ▼	ATHN	118.31	3	1	NMF	NIL	Healthcare Information	16	1522	Equity Residential	EQR	71.34	3	2	33.2	3.3	R.E.I.T.	28
543	Atmos Energy	ATO	70.80	1	4	21.8	2.4	Natural Gas Utility	20	765	Erie Indemnity	ERIE	96.57	2	3	26.5	3.0	Insurance (Prop/Cas.)	6
2602	Automatic Data Proc.	ADP	80.67	1	3	23.9	2.9	IT Services	1	2024	Everest Re Group Ltd.	RE	187.91	1	3	10.8	2.4	Reinsurance	32
1515	AvalonBay Communities	AVB	161.11	2	2	34.6	3.4	R.E.I.T.	28	968	Express Scripts	ESRX	67.16	3	1	22.8	NIL	Pharmacy Services	15
2228	Avista Corp.	AVA	37.91	2	3	19.0	3.6	Electric Utility (West)	36	121	FEI Company	FEIC	70.61	3	3	17.8	1.7	Precision Instrument	55
2022	AXIS Capital Hldgs.	AXS	52.20	2	1	11.7	2.7	Reinsurance	32	448	FacSet Research	FDS	137.59	2	2	22.0	1.3	Information Services	9
1903	B&G Foods	BGS	35.44	3	3	18.7	4.0	Food Processing	10	2550	Fidelity National	FIS	57.93	2	3	18.2	1.8	Financial Svcs. (Div.)	97
1791	BGC Partners	BGCP	8.48	4	2	10.0	6.6	Brokers & Exchanges	23	2552	FleetCor Technologies	FLT	113.87	3	3	16.4	NIL	Financial Svcs. (Div.)	57
1029	BT Group ADR	BT	33.52	3	3	13.4	3.1	Telecom. Utility	76	2214	Foot Locker	FL	63.64	3	3	13.9	1.6	Retail (Softlines)	75
559	Balchem Corp.	BCPC	62.66	3	3	27.1	0.5	Chemical (Specialty)	56	2584	Fortinet Inc.	FTNT	23.84	3	2	99.3	NIL	Computer Software	26
1175	Ball Corp.	BLL	65.15	2	2	20.1	0.8	Packaging & Container	51	320	Forward Air ▲	FWRD	42.95	3	4	16.8	1.1	Trucking	65
1175	Bard (C.R.)	BCR	181.44	1	3	18.6	0.6	Med Supp Invasive	3	1913	Fresh Del Monte Prod.	FDP	40.04	3	3	15.1	1.2	Food Processing	10
1147	Bassett Furniture	BSET	27.71	4	3	18.9	1.3	Furn/Home Furnishings	12	393	G&K Services	GK	62.66	3	4	17.4	2.4	Industrial Services	38
1106	Beacon Roofing	BECN	33.87	3	2	16.9	NIL	Building Materials	27	925	Gen'l Communic. 'A'	GNCA	17.08	4	1	28.5	NIL	Telecom. Services	25
760	Berkley (W.R.)	WRB	51.39	1	2	14.7	0.9	Insurance (Prop/Cas.)	6	712	Gen'l Dynamics	GD	132.13	1	3	14.1	2.1	Aerospace/Defense	29
382	Booz Allen Hamilton	BAH	25.68	3	1	15.0	2.3	Industrial Services	38	1527	General Growth Prop.	GGP	25.00	3	3	34.7	3.0	R.E.I.T.	28
178	Boston Scientific	BSX	16.87	3	2	26.0	NIL	Med Supp Invasive	3	1914	Gen'l Mills	GIS	55.94	1	3	19.4	3.2	Food Processing	10
2354	Boyd Gaming	BYD	15.04	5	1	16.5	NIL	Hotel/Gaming	48	990	Gentherm Inc.	THRM	36.80	3	2	14.4	NIL	Auto Parts	59
1965	Brown-Forman 'B'	BFB	95.86	1	3	25.8	1.4	Beverage	8	991	Genuine Parts	GPC	86.39	1	5	22.6	2.8	Auto Parts	59
116	Brüker Corp.	BRKR	21.33	3	2	35.0	NIL	Precision Instrument	55	745	Gibraltar Inds.	ROCK	19.24	4	1	21.1	NIL	Steel	93
2303	Brunswick Corp.	BC	38.66	3	2	11.6	1.6	Recreation	21	992	Goodyear Tire	GT	27.45	4	2	7.7	1.0	Auto Parts	59
355	Buffalo Wild Wings	BWLD	140.00	3	4	22.5	NIL	Restaurant	11	1713	Graco Inc.	GGG	71.65	3	4	19.4	1.8	Machinery	37
2603	CACI Int'l	CACI	93.82	3	2	17.1	NIL	IT Services	1	1110	HD Supply Holdings	HDS	22.58	3	3	10.8	NIL	Building Materials	27
708	CAE Inc.	CAE.TO	14.24	3	2	15.5	2.1	Aerospace/Defense	29	2107	Hanesbrands, Inc.	HBI	24.03	3	3	13.1	1.8	Apparel	60
385	CBRE Group	CBG	23.32	3	2	9.7	NIL	Industrial Services	38	766	Hanover Insurance ▼	THG	80.89	2	3	13.7	2.3	Insurance (Prop/Cas.)	6
1357	CEVA, Inc.	CEVA	18.04	4	3	39.2	NIL	Semiconductor	45	2311	Hasbro, Inc.	HAS	71.94	3	3	19.5	2.8	Recreation	21
906	CMS Energy Corp.	CMS	39.87	2	4	20.2	3.1	Electric Util. (Central)	19	713	HEICO Corp.	HEI	54.88	3	5	25.5	0.3	Aerospace/Defense	29
967	CVS Health	CVS	90.51	1	2	15.9	1.9	Pharmacy Services	15	1640	Heldrick & Struggles	HSII	23.20	2	2	21.7	2.2	Human Resources	17
2581	Cadence Design Sys.	CDNS	19.82	3	2	16.8	NIL	Computer Software	26	1010	Helen of Troy Ltd.	HELE	86.93	3	3	14.7	NIL	Toiletries/Cosmetics	52
1906	Cal-Maine Foods	CALM	48.56	3	3	6.6	6.2	Food Processing	10	215	Hill-Rom Hldgs.	HRC	44.17	3	3	13.6	1.4	Med Supp Non-Invasive	4
2444	Cambrex Corp. ▼	CBM	37.55	4	2	16.1	NIL	Chemical (Diversified)	50	1755	Honeywell Int'l	HON	102.72	1	3	16.0	2.3	Diversified Co.	58
1908	Campbell Soup	CPB	57.21	2	4	21.2	2.2	Food Processing	10	1125	Horton D.R.	DHI	24.04	3	1	10.5	1.3	Homebuilding	47
207	Cardinal Health	CAH	76.65	1	2	16.8	2.3	Med Supp Non-Invasive	4	1391	IPG Photonics Corp.	IPGP	82.06	3	3	16.8	NIL	Semiconductor Equip	41
1744	Carlisle Cos.	CSL	85.83	3	4	16.5	1.4	Diversified Co.	58	1714	IDEX Corp.	IDEX	71.47	3	3	18.2	1.8	Machinery	37
2306	Carnival Corp.	CCL	42.97	3	2	12.6	2.8	Recreation	21	217	IDEXX Labs.	IDXX	68.49	3	2	32.2	NIL	Med Supp Non-Invasive	4
1826	Carriage Services	CSV	20.66	3	1	14.2	0.5	Funeral Services	34	2312	IMAX Corp.	IMAX	26.45	3	2	20.5	NIL	Recreation	21
2102	Carter's Inc.	CRI	85.81	3	3	28.2	1.0	Apparel	60	834	Incyte Corp. ▲	INCY	72.26	4	1	NMF	NIL	Biotechnology	42
2207	Cato Corp.	CATO	33.29	3	3	13.5	3.6	Retail (Softlines)	75	1403	Ingram Micro 'A'	IM	27.39	3	2	9.0	1.5	Computers/Peripherals	64
1615	Celgene Corp.	CELG	100.50	3	2	39.7	NIL	Drug											

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**TIMELY STOCKS**

**Stocks Ranked 2 (Above Average) for Relative Price Performance in the Next 12 Months**

Page No.	Stock Name	Recent Price	Ticker	Rank	Technical Safety	Current %	P/E	Est'd Yield	Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Ticker	Rank	Technical Safety	Current %	P/E	Est'd Yield	Industry Group	Industry Rank
2182	Liberty Interactive	QVCA	22.68	3	3	15.4	NIL		Retail (Hardlines)	66	1933	Saputo Inc.	SAP.TO	37.72	1	3	23.0	1.4		Food Processing	10
1619	Lilly (Eli)	LLY	73.74	1	2	21.8	2.8		Drug	35	1183	Sealed Air	SEE	40.43	3	3	20.7	1.3		Packaging & Container	51
2631	LinkedIn	LNKD	100.98	3	1	NMF	NIL		Internet	30	842	Seattle Genetics	SGEN	29.04	4	2	NMF	NIL		Biotechnology	42
1951	Loblaws Cos. Ltd.	L.TO	63.84	2	2	19.3	1.6		Retail/Wholesale Food	24	930	Shenandoah Telecom.	SHEN	21.17	3	3	25.5	1.2		Telecom. Services	25
716	Lockheed Martin	LMT	215.98	1	3	17.7	3.1		Aerospace/Defense	29	1142	Shaw-Williams	SHW	252.43	1	3	20.4	1.3		Retail Building Supply	2
2183	Luxottica Group ADR	LUX	55.59	3	2	26.1	1.4		Retail (Hardlines)	66	2193	Signet Jewelers Ltd.	SIG	96.28	3	2	12.6	1.0		Retail (Hardlines)	66
717	MacDonald Dettwiler	MDA.TO	84.70	2	4	19.8	1.7		Aerospace/Defense	29	1542	Simon Property Group	SPG	178.93	2	2	34.3	3.6		R.E.I.T.	28
1534	Macerich Comp. (The)	MAC	74.92	3	2	65.1	3.7		R.E.I.T.	28	2322	Six Flags Entertainment	SIX	47.75	3	2	29.1	4.9		Recreation	21
2364	Marriott Int'l	MAR	60.77	3	4	16.9	1.6		Hotel/Gaming	48	2160	Skechers U.S.A.	SKX	26.88	3	3	13.2	NIL		Shoe	40
2564	Marsh & McLennan	MMC	55.28	1	3	16.9	2.2		Financial Svcs. (Div.)	57	1938	Snyder's-Lance	LNCE	29.31	3	2	23.4	2.2		Food Processing	10
1113	Masco Corp.	MAS	25.39	3	2	17.8	1.5		Building Materials	27	313	Southwest Airlines	LUV	35.25	3	2	9.1	0.9		Air Transport	33
221	Masimo Corp.	MASI	35.22	3	2	21.9	NIL		Med Supp Non-Invasive	4	1200	Spectrum Brands	SPB	95.81	3	3	20.2	1.6		Household Products	5
2565	MasterCard Inc.	MA	81.97	2	2	22.5	0.9		Financial Svcs. (Div.)	57	1822	Splunk Inc.	SPLK	31.92	3	3	NMF	NIL		E-Commerce	22
336	Matson, Inc.	MATX	39.71	3	2	14.8	1.8		Maritime	88	1000	Standard Motor Prod.	SMP	34.95	3	3	13.0	1.9		Auto Parts	59
1924	McCormick & Co.	MKC	88.24	1	3	24.0	1.9		Food Processing	10	1771	Standex Int'l	SXI	67.30	3	1	13.6	0.8		Diversified Co.	58
366	McDonald's Corp.	MCD	117.01	1	3	21.6	3.0		Restaurant	11	1729	Stanley Black & Decker	SWK	90.63	2	2	14.0	2.4		Machinery	37
452	McGraw Hill Fin'l	MHFI	83.59	2	3	18.1	1.7		Information Services	9	1247	Stantec Inc.	STN.TO	31.84	3	2	15.5	1.3		Engineering & Const	80
811	Medidata Solutions	MDSO	36.00	3	3	NMF	NIL		Medical Services	31	1937	Stryker Corp.	SYK	96.64	1	4	20.9	1.6		Med Supp Invasive	3
812	MEDNAX, Inc.	MD	65.98	2	3	16.7	NIL		Medical Services	31	2525	Synovus Financial	SNV	27.25	3	2	15.0	1.8		Bank	54
127	Mettler-Toledo Int'l	MTD	307.00	3	3	23.7	NIL		Precision Instrument	55	1956	Sysco Corp.	SY	42.61	1	3	21.2	2.9		Retail/Wholesale Food	24
2587	Microsoft Corp.	MSFT	49.28	1	2	17.5	2.9		Computer Software	26	932	T-Mobile US	TMUS	33.89	3	2	26.3	NIL		Telecom. Services	25
1720	Middleby Corp. (The)	MIDD	83.34	3	2	18.7	NIL		Machinery	37	2222	TJX Companies	TJX	69.65	1	3	19.3	1.2		Retail (Softlines)	75
1158	Mohawk Inds.	MHK	153.70	3	2	13.5	NIL		Furn/Home Furnishings	12	2015	Take-Two Interactive	TTWO	34.52	3	3	NMF	NIL		Entertainment Tech	46
1926	Mondelez Int'l	MDLZ	37.05	2	2	18.8	1.9		Food Processing	10	1412	Tech Data	TECD	64.02	3	3	11.1	NIL		Computers/Peripherals	64
2127	Monro Muffler Brake	MNRO	62.88	3	2	27.7	1.0		Retail Automotive	18	195	Teleflex Inc.	TFX	134.03	2	3	24.2	1.0		Med Supp Invasive	3
1975	Monster Beverage	MNST	118.91	3	2	32.2	NIL		Beverage	8	1160	Tempur Sealy Int'l	TPX	53.58	4	2	24.5	NIL		Furn/Home Furnishings	12
1623	Mylan N.V.	MYL	50.74	3	4	10.8	NIL		Drug	35	517	Tesoro Corp.	TSO	73.62	3	2	8.1	2.7		Petroleum (Integrated)	87
839	Myriad Genetics	MYGN	34.60	3	1	20.6	NIL		Biotechnology	42	1385	Texas Instruments	TXN	50.68	1	2	16.9	3.0		Semiconductor	45
1166	Neehan Paper	NP	56.98	3	3	14.4	2.3		Paper/Forest Products	61	377	Texas Roadhouse	TXRH	36.07	3	3	22.4	1.9		Restaurant	11
957	NETGEAR	NTGR	35.87	3	2	15.9	NIL		Telecom. Equipment	81	135	Thermo Fisher Sci.	TMO	124.45	2	2	23.9	0.5		Precision Instrument	55
2000	New Orient. Ed. ADS	EDU	28.86	3	3	18.6	NIL		Educational Services	77	455	Thomson Reuters	TRI.TO	49.45	2	3	22.3	2.7		Information Services	9
148	NextEra Energy	NEE	115.35	2	5	18.9	3.1		Electric Utility (East)	44	2326	Thor Inds.	THO	48.70	3	3	11.1	2.5		Recreation	21
454	Nielsen Hldgs. plc	NLSN	45.13	2	3	16.1	2.5		Information Services	9	1773	3M Company	MMM	154.74	1	5	19.3	2.9		Diversified Co.	58
719	Northrop Grumman	NOC	187.32	1	3	17.6	1.7		Aerospace/Defense	29	1938	Toolsie Roll Ind.▲	TR	31.82	1	3	28.4	1.1		Food Processing	10
2234	NorthWestern Corp.	NWE	58.19	3	4	17.8	3.4		Electric Utility (West)	36	1561	Torchmark Corp.	TMK	51.11	1	2	11.5	1.1		Insurance (Life)	79
2315	Norwegian Cruise Line	NCLH	39.18	3	1	13.6	NIL		Recreation	21	2572	Total System Svcs.	TSS	38.51	2	2	18.9	1.0		Financial Svcs. (Div.)	57
2588	Nuance Commun.▲	NUAN	16.15	3	1	NMF	NIL		Computer Software	26	1144	Tractor Supply	TSCO	81.45	2	3	24.8	1.1		Retail Building Supply	2
190	NuVasive, Inc.	NUVA	41.74	3	1	46.4	NIL		Med Supp Invasive	3	1939	TreeHouse Foods	THS	77.58	4	4	23.6	NIL		Food Processing	10
226	Omnicell, Inc.	OMCL	27.47	3	3	28.0	NIL		Med Supp Non-Invasive	4	2638	TripAdvisor, Inc.	TRIP	54.09	3	2	32.6	NIL		Internet	30
2395	Omnicom Group	OMC	71.62	2	3	15.4	3.0		Advertising	7	1543	UDR, Inc.	UDR	33.42	3	2	98.3	3.4		R.E.I.T.	28
1627	Opko Health▲	OPK	7.76	3	3	NMF	NIL		Drug	35	72	35	UA	72.35	3	2	58.8	NIL		Apparel	60
131	Orbotech Ltd.	ORBK	19.38	3	3	13.2	NIL		Precision Instrument	55	316	United Parcel Serv.	UPS	97.53	1	5	16.8	3.2		Air Transport	33
1115	Owens Corning	OC	41.93	3	2	17.4	1.7		Building Materials	27	792	USA Bancorp.	USB	39.40	2	4	12.2	2.6		Bank (Midwest)	49
2190	PC Connection	PCCC	22.38	3	4	12.8	NIL		Retail (Hardlines)	66	1315	Universal Display	OLED	42.93	3	2	36.4	NIL		Electrical Equipment	68
2450	PPG Inds.	PPG	90.99	1	3	15.9	1.6		Chemical (Diversified)	50	2017	Universal Electronics▲	UEIC	48.42	3	4	21.1	NIL		Entertainment Tech	46
367	Panera Bread Co.▲	PNRA	184.72	2	3	29.2	NIL		Restaurant	11	1120	Universal Forest	UFPI	61.69	3	2	15.0	1.4		Building Materials	27
1629	PAREXEL Int'l	PRXL	58.36	3	2	19.5	NIL		Drug	35	818	Universal Health Sv. 'B'	UHS	105.52	3	2	14.6	0.4		Medical Services	31
228	Patterson Cos.▲	PDCO	41.28	2	4	18.2	2.3		Med Supp Non-Invasive	4	819	VCA Inc.	WOOF	46.34	3	2	18.9	NIL		Medical Services	31
2615	Paychex, Inc.	PAYX	46.66	1	2	21.7	3.8		IT Services	5	2573	Visa Inc.	V	68.33	1	2	22.8	0.9		Financial Svcs. (Div.)	57
132	PerkinElmer Inc.	PKI	42.47	3	2	16.0	0.7		Precision Instrument	55	1121	Vulcan Materials	VMC	91.01	3	2	27.7	0.4		Building Materials	27
1395	Photronics Inc.	PLAB	11.09	4	3	13.0	NIL		Semiconductor Equip	41	918	WEC Energy Group	WEC	57.39	1	4	21.0	3.5		Electric Util. (Central)	19
1930	Pinnacle Foods	PF	39.89	3	3	19.8	2.6		Food Processing	10	553	WGL Holdings Inc.▲	WGL	67.90	1	3	21.9	2.9		Natural Gas Utility	20
2636	Priceline Group (The)	PCLN	991.29	3	2	15.0	NIL		Internet	30	2396	WPP PLC ADR	WPPGY	100.37	2	2	14.0	3.5		Advertising	7
1978	Primo Water Corp.	PRMW	8.82	4	4	49.0	NIL		Beverage	8	973	Walgreens Boots	WBA	74.93	2	2	16.7	1.9		Pharmacy Services	15
790	PrivateBancorp	PVTB	32.36	3	1	13.5	0.1		Bank (Midwest)	49	138	Waters Corp.	WAT	115.83	2	1	19.1	NIL		Precision Instrument	55
814	Quintiles Transnational	Q	56.70	3	1	15.9	NIL		Medical Services	31	1145	Watsco, Inc.	WSO	110.18	2	2	20.7	3.1		Retail Building Supply	2
1723	RBC Bearings	ROLL	59.17	3	3	17.8	NIL		Machinery	37	828	WebMD Health	WBMD	47.60	4	3	29.2	NIL		Healthcare Information	16
771	RLI Corp.	RLI	60.79	2	3	27.0	1.3		Insurance (Prop/Cas.)	6	378	Wendy's Company	WEN	9.71	3	2	27.0	2.5		Restaurant	11
577	RPM Int'l	RPM	38.12	3	3	14.6	2.9		Chemical (Specialty)	56	233	West Pharm. Svcs.	WST	55.54	2	3	26.7	0.9		Med Supp Non-Invasive	4
722	Raytheon Co.	RTN	126.39	1	3	18.2	2.1		Aerospace/Defense	29	1942	WhiteWave Foods	WWAV	33.65	3	4	24.9	NIL		Food Processing	10
1539	Realty Income Corp.	O	56.36	2	4	46.2	4.2		R.E.I.T.	28	2351	World Wrestling Ent.	WWE	16.47	4	3	35.8	2.9		Entertainment	53
841	Regeneron Pharm.▼	REGN	365.97	3	1	48.9	NIL		Biotechnology	42	753	Worthington Inds.	WOR	28.38	3	3	18.7	2.7		Steel	93
229	ResMed Inc.	RMD	57.18	3	5	20.7	2.1		Med Supp Non-Invasive	4	1789	York Water Co. (The)	YORW	27.76	3	3	28.6	2.3		Water Utility	13
408	Rollins, Inc.	ROL	24.88	2	3	33.2	1.6		Industrial Services	38	197	Zimmer Biomet Hldgs.	ZBH	91.90	1	4	14.4	1.0		Med Supp Invasive	3
1540	Ryman Hospitality	RHP	46.03	3	4	16.5	6.2		R.E.I.T.	28	1335	Zoetis Inc.	ZTS	39.86	3	1	22.3	1.0		Drug	35

▲ Arrow indicates the direction of a change in Timeliness. ■ Newly added this week.

**Rank 2 Deletions:**

Alliance Data Sys.; Ametek, Inc.; Anacor Pharm.; ARM Holdings plc; Delphi Automotive PLC; Expedia Inc.; Insight Enterprises; iRobot Corp.; Jones Lang LaSalle; Korn/Ferry Int'l; LyondellBasell Inds.; MGM Resorts Int'l; Moody's Corp.; PriceSmart; Roper Tech.; SEI Investments; SL Green Realty; ViaSat, Inc.

**Rank removed—see supplement or report:**

ITC Holdings.

**Rank 3 Deletions:**

AECOM Techn.; BB&T Corp.; Brink's (The) Co.; CEB Inc.; Cypress Semic.; Dover Corp.; Gladstone Capital; Loews Corp.; Magna Int'l 'A'; NCR Corp.; Prudential Fin'l; Regal Beloit; Rojin-Sinar Techn.; Sanofi ADR; Weyerhaeuser Co.

**Rank removed—see supplement or report:**

Empire Dist. Elec.

Stocks Ranked 1 (Highest) for Relative Safety

Page No.	Stock Name	Recent Price	Rank			Current			Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Rank			Current			Industry Group	Industry Rank
			Time-liness	Tech-nical	P/E Ratio	% Est'd Yield	Time-liness	Tech-nical						P/E Ratio	% Est'd Yield						
1963	AB InBev ADR	116.11	—	—	22.3	3.5	Beverage	8	2587	Microsoft Corp.	(NDQ)	49.28	2	2	17.5	2.9	Computer Software	26			
542	AGL Resources	64.66	—	—	20.0	3.3	Natural Gas Utility	20	956	Motorola Solutions	(NDQ)	62.24	3	1	18.6	2.7	Telecom. Equipment	81			
921	AT&T Inc.	36.65	3	5	13.3	5.2	Telecom. Services	25	1927	Nestle SA ADS	(PNK)	73.68	3	4	21.6	3.1	Food Processing	10			
200	Abbott Labs.	37.00	3	3	17.5	2.8	Med Supp Non-Invasive	4	546	New Jersey Resources	(NDQ)	35.29	3	3	21.9	2.7	Natural Gas Utility	20			
2600	Accenture Plc	93.32	2	3	17.9	2.4	IT Services	1	2159	NIKE, Inc. 'B'	(NDQ)	55.68	1	3	25.3	1.1	Shoe	40			
2441	Air Products & Chem.	132.46	2	5	17.5	2.4	Chemical (Diversified)	50	719	Northrop Grumman	(NDQ)	187.32	2	3	17.6	1.7	Aerospace/Defense	29			
555	Airgas Inc.	140.14	—	—	26.8	1.8	Chemical (Specialty)	56	548	Northwest Nat. Gas	(NDQ)	53.15	3	3	26.3	3.5	Natural Gas Utility	20			
756	Alleghany Corp.	457.55	3	2	17.1	NIL	Insurance (Prop/Cas.)	6	1625	Novartis AG ADR	(NDQ)	72.62	3	3	18.4	3.7	Drug	35			
757	Allstate Corp.	63.01	3	5	11.4	1.9	Insurance (Prop/Cas.)	6	1213	Nuveen Muni Value Fund	(NDQ)	10.40	—	3	NMF	3.8	Investment Co.	—			
2601	Amdocs Ltd.	(NDQ)	52.28	3	3	19.0	1.5	IT Services	1	2589	Oracle Corp.	(NDQ)	35.08	3	4	12.9	1.7	Computer Software	26		
2534	Amer. Express	52.63	3	3	9.5	2.4	Financial Svcs. (Div.)	57	2450	PPG Inds.	(NDQ)	90.99	2	3	15.9	1.6	Chemical (Diversified)	50			
204	AmerisourceBergen	84.75	2	1	14.6	1.6	Med Supp Non-Invasive	4	2615	Paychex, Inc.	(NDQ)	46.66	2	2	21.7	3.8	IT Services	1			
831	Amgen	(NDQ)	143.16	2	2	13.9	2.8	Biotechnology	42	1977	PepsiCo, Inc.	(NDQ)	98.28	3	3	20.4	2.9	Beverage	8		
2537	Aon plc	92.88	2	4	17.2	1.3	Financial Svcs. (Div.)	57	1631	Pfizer, Inc.	(NDQ)	29.10	—	—	19.3	4.1	Drug	35			
759	Arch Capital Group	(NDQ)	67.87	2	2	12.5	NIL	Insurance (Prop/Cas.)	6	2237	Pinnacle West Capital	(NDQ)	68.48	3	3	17.1	3.7	Electric Utility (West)	36		
543	Almos Energy	70.80	2	4	21.8	2.4	Natural Gas Utility	20	575	Praxair Inc.	(NDQ)	103.82	4	4	17.0	2.9	Chemical (Specialty)	56			
2602	Automatic Data Proc.	(NDQ)	80.67	2	3	23.9	2.9	IT Services	1	1198	Procter & Gamble	(NDQ)	82.64	3	4	19.8	3.2	Household Products	5		
2508	Bank of Nova Scotia	(TSE)	54.17	3	4	9.2	5.4	Bank	54	151	Public Serv. Enterprise	(NDQ)	42.38	3	5	14.8	3.9	Electric Utility (East)	44		
175	Bard (C.R.)	181.44	2	3	18.6	0.6	Med Supp Invasive	3	1538	Public Storage	(NDQ)	232.92	1	3	35.7	3.0	R.E.I.T.	28			
177	Becton, Dickinson	134.34	1	2	16.0	2.1	Med Supp Invasive	3	961	Qualcomm Inc.	(NDQ)	43.61	4	4	10.9	4.8	Telecom. Equipment	81			
2165	Bed Bath & Beyond	(NDQ)	43.67	4	3	8.6	NIL	Retail (Hardlines)	66	538	Questar Corp.	(NDQ)	24.90	—	—	19.2	3.5	Natural Gas (Div.)	95		
1176	Bemis Co.	48.53	3	3	17.9	2.4	Packaging & Container	51	722	Raytheon Co.	(NDQ)	126.39	2	3	18.2	2.1	Aerospace/Defense	29			
760	Berkley (W.R.)	51.39	2	2	14.7	0.9	Insurance (Prop/Cas.)	6	723	Rockwell Collins	(NDQ)	80.75	3	2	15.0	1.7	Aerospace/Defense	29			
761	Berkshire Hathaway 'B'	127.72	3	4	13.7	NIL	Insurance (Prop/Cas.)	6	1726	Roper Tech.	(NDQ)	161.83	3	2	22.8	0.7	Machinery	37			
832	Bio-Techne Corp.	(NDQ)	84.69	3	4	27.1	1.6	Biotechnology	42	2522	Royal Bank of Canada (TSE)	(TSE)	67.64	3	3	9.9	4.9	Bank	54		
706	Boeing	118.88	3	3	14.5	3.7	Aerospace/Defense	29	515	Royal Dutch Shell 'B'	(NDQ)	42.62	5	4	10.4	8.8	Petroleum (Integrated)	87			
1614	Bristol-Myers Squibb	61.02	3	2	32.1	2.5	Drug	35	1632	Sanofi ADR	(NDQ)	38.87	4	3	17.1	4.3	Drug	35			
1965	Brown-Forman 'B'	95.86	2	3	25.8	1.4	Beverage	8	1933	Saputo Inc.	(TSE)	37.72	2	3	23.0	1.4	Food Processing	10			
967	CVS Health	90.51	2	2	15.9	1.9	Pharmacy Services	15	1142	Sherwin-Williams	(NDQ)	252.43	2	3	20.4	1.3	Retail Building Supply	2			
2509	Can. Imperial Bank	(TSE)	86.17	3	3	9.1	5.5	Bank	54	1935	Smucker (J.M.)	(NDQ)	127.35	1	3	21.4	2.2	Food Processing	10		
2136	Canadian Tire Corp. 'A' (TSE)	113.79	3	4	13.9	2.1	Retail Store	71	376	Starbucks Corp.	(NDQ)	54.42	1	3	28.6	1.5	Restaurant	11			
207	Cardinal Health	76.65	2	2	16.8	2.3	Med Supp Non-Invasive	4	193	Stryker Corp.	(NDQ)	96.64	2	4	20.9	1.6	Med Supp Invasive	3			
504	Chevron Corp.	82.92	4	4	13.1	5.2	Petroleum (Integrated)	87	2595	Synopsis, Inc.	(NDQ)	40.96	3	2	14.4	NIL	Computer Software	26			
755	Chubb Ltd.	110.58	2	2	10.7	2.4	Insurance (Prop/Cas.)	6	1956	Sysco Corp.	(NDQ)	42.61	2	3	21.2	2.9	Retail/Wholesale Food	24			
1189	Church & Dwight	88.49	2	4	25.5	1.6	Household Products	5	2222	TJX Companies	(NDQ)	69.65	2	3	19.3	1.2	Retail (Softlines)	75			
908	Cleco Corp.	53.40	—	—	23.6	3.0	Electric Util. (Central)	19	2151	Target Corp.	(NDQ)	68.86	3	4	14.0	3.3	Retail Store	71			
1966	Coca-Cola	43.30	3	3	22.4	3.2	Beverage	8	1385	Texas Instruments	(NDQ)	50.68	2	2	16.9	3.0	Semiconductor	45			
1191	Colgate-Palmolive	65.88	3	4	41.2	2.4	Household Products	5	1773	3M Company	(NDQ)	154.74	2	5	19.3	2.9	Diversified Co.	58			
780	Commerce Bancshs.	(NDQ)	41.09	3	3	15.6	2.2	Bank (Midwest)	49	1938	Tootsie Roll Ind.	(NDQ)	31.82	2	3	28.4	1.1	Food Processing	10		
1909	ConAgra Foods	39.70	2	2	16.2	2.5	Food Processing	10	1561	Torchmark Corp.	(NDQ)	51.11	2	2	11.5	1.1	Insurance (Life)	79			
142	Consol. Edison	73.61	3	5	18.7	3.7	Electric Utility (East)	44	773	Travelers Cos.	(NDQ)	105.92	3	3	10.4	2.3	Insurance (Prop/Cas.)	6			
2137	Costco Wholesale	(NDQ)	147.94	2	2	26.4	1.1	Retail Store	71	1941	Unilever PLC ADR	(NDQ)	42.73	3	4	21.6	3.2	Food Processing	10		
2512	Cullen/Frost Bankers	47.58	4	3	11.2	4.6	Bank	54	349	Union Pacific	(NDQ)	77.12	4	5	13.2	2.9	Railroad	70			
161	Deere & Co.	78.08	4	4	18.4	3.1	Heavy Truck & Equip	83	316	United Parcel Serv.	(NDQ)	97.53	2	5	16.8	3.2	Air Transport	33			
1972	Diageo plc	103.55	3	4	16.0	3.3	Beverage	8	1776	United Technologies	(NDQ)	87.24	3	3	13.7	2.9	Diversified Co.	58			
2332	Disney (Walt)	92.32	2	2	15.8	1.5	Entertainment	53	817	UnitedHealth Group	(NDQ)	111.16	3	3	15.6	1.8	Medical Services	31			
1601	Du Pont	59.08	—	—	19.2	2.7	Chemical (Basic)	92	196	Varian Medical Sys.	(NDQ)	74.87	3	4	17.0	NIL	Med Supp Invasive	3			
562	Ecolab Inc.	107.20	2	3	22.4	1.3	Chemical (Specialty)	56	936	Verizon Commun.	(NDQ)	50.15	3	5	12.4	4.5	Telecom. Services	25			
1305	Emerson Electric	46.91	4	4	15.1	4.1	Electrical Equipment	68	2573	Visa Inc.	(NDQ)	68.33	2	2	22.8	0.9	Financial Svcs. (Div.)	57			
2024	Everest Re Group Ltd.	187.91	2	3	10.8	2.4	Reinsurance	32	918	WEC Energy Group	(NDQ)	57.39	2	4	21.0	3.5	Electric Util. (Central)	19			
145	Eversource Energy	54.69	3	3	19.1	3.3	Electric Utility (East)	44	553	WGL Holdings Inc.	(NDQ)	67.90	2	3	21.9	2.9	Natural Gas Utility	20			
505	Exxon Mobil Corp.	80.08	4	4	29.8	3.6	Petroleum (Integrated)	87	2152	Wal-Mart Stores	(NDQ)	65.81	4	5	15.8	3.0	Retail Store	71			
2554	Gallagher (Arthur J.)	37.82	3	4	14.5	4.0	Financial Svcs. (Div.)	57	424	Waste Management	(NDQ)	53.28	3	3	19.7	2.9	Environmental	62			
712	Gen'l Dynamics	132.13	2	3	14.1	2.1	Aerospace/Defense	29	1959	Weis Markets	(NDQ)	38.67	3	3	16.6	3.1	Retail/Wholesale Food	24			
1914	Gen'l Mills	55.94	2	3	19.4	3.2	Food Processing	10	2240	Xcel Energy Inc.	(NDQ)	39.62	3	4	17.9	3.4	Electric Utility (West)	36			
991	Genuine Parts	86.39	2	5	22.6	2.8	Auto Parts	59	197	Zimmer Biomet Hldgs.	(NDQ)	91.90	2	4	14.4	1.0	Med Supp Invasive	3			
1618	GlaxoSmithKline ADR	39.34	4	4	20.8	5.9	Drug	35													
1310	Grainger (W.W.)	209.79	4	3	17.9	2.2	Electrical Equipment	68													
1139	Home Depot	113.86	1	3	18.9	2.2	Retail Building Supply	2													
1755	Honeywell Int'l	102.72	2	3	16.0	2.3	Diversified Co.	58													
1918	Hormel Foods	41.43	1	3	27.6	1.4	Food Processing	10													
733	Illinois Tool Works	90.36	3	4	17.0	2.4	Metal Fabricating	89													
1364	Intel Corp.	28.81	3	1	11.9	3.6	Semiconductor	45													
1404	Int'l Business Mach.	124.07	4	3	9.9	4.2	Computers/Peripherals	64													
567	Int'l Flavors & Frag.	116.83	2	3	20.8	1.9	Chemical (Specialty)	56													
220	Johnson & Johnson	101.97	2	3	17.7	3.1	Med Supp Non-Invasive	4													
1921	Kellogg	71.40	3	2	20.2	2.9	Food Processing	10													
1195	Kimberly-Clark	130.79	1	3	29.7	2.7	Household Products	5													
809	Laboratory Corp.	102.53	2	1	11.9	NIL	Medical Services	31													
1923	Lancaster Colony	101.09	2	3	24.2	2.0	Food Processing	10													

Stocks Ranked 2 (Above Average) for Relative Safety

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Page No.	Stock Name	Recent Price	Rank		Current		Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Rank		Current		Industry Group	Industry Rank		
			Time-liness	Tech-nical	P/E Ratio	% Est'd Yield						Time-liness	Tech-nical	P/E Ratio	% Est'd Yield				
1607	AbbVie Inc.	53.48	2	3	11.0	4.3	Drug	35	1739	Ametek, Inc.	(NDQ)	45.75	3	2	17.3	0.8	Diversified Co.	58	
1205	Adams Divers. Equity Fd	11.24	-	3	NM/F	-	Investment Co.	-	1353	Analog Devices	(NDQ)	49.31	3	3	14.9	3.2	Semiconductor	45	
2119	Advance Auto Parts	141.50	3	3	16.1	0.2	Retail Automotive	18	2578	ANSYS, Inc.	(NDQ)	63.10	3	2	23.7	NIL	Computer Software	31	
795	Aetna Inc.	97.20	2	2	12.4	1.0	Medical Services	31	797	Anthem, Inc.	(NDQ)	119.82	3	3	12.1	2.1	Medical Services	61	
1610	Allergan plc	272.34	-	-	17.9	NIL	Drug	35	1398	Apple Inc.	(NDQ)	94.99	3	4	10.4	2.3	Computers/Peripherals	34	
902	ALLETE	54.65	3	5	16.5	3.8	Electric Util. (Central)	19	1174	AptarGroup		74.41	2	2	22.8	1.6	Packaging & Container	11	
903	Alliant Energy	68.35	2	3	17.8	3.4	Electric Util. (Central)	19	1783	Aqua America		32.02	3	2	24.1	2.3	Water Utility	53	
2620	Alphabet Inc.	(NDQ)	678.11	1	2	22.0	NIL	Internet	30	1902	Archer Daniels Mid'd		33.58	4	3	11.6	3.6	Food Processing	10
1989	Altria Group	60.45	2	3	20.1	3.7	Tobacco	14	2020	Aspen Insurance Hldgs.		42.22	2	2	8.4	2.0	Reinsurance	32	
904	Amersen Corp.	46.08	3	3	17.5	3.7	Electric Util. (Central)	19	2538	Assurant Inc.		76.49	2	2	13.3	2.6	Financial Svcs. (Div.)	57	
922	America Movil	13.29	-	-	11.9	2.6	Telecom. Services	25	1612	AstraZeneca PLC (ADS)		28.59	3	3	20.6	4.9	Drug	35	
905	Amer. Elec. Power	62.37	2	4	16.9	3.6	Electric Util. (Central)	19	1515	AvalonBay Communities		161.11	2	2	34.6	3.4	R.E.I.T.	28	
758	Amer. Financial Group	66.49	1	2	11.7	1.7	Insurance (Prop/Cas.)	6	2228	Avista Corp.		37.91	2	3	19.0	3.6	Electric Utility (West)	36	
1781	Amer. States Water	46.23	2	4	27.5	2.0	Water Utility	13	2022	AXIS Capital Hldgs.		52.20	2	1	11.7	2.7	Reinsurance	32	
583	Amer. Tower 'A'	85.57	1	1	36.9	2.4	Wireless Networking	43	2502	BB&T Corp.		31.60	4	3	11.8	3.7	Bank	54	

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## Stocks Ranked 2 (Above Average) for Relative Safety

Page No.	Stock Name	Recent Price	Rank					Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Rank					Industry Group	Industry Rank
			Time-liness	Technical	P/E Ratio	Current Yield	% Est'd						Time-liness	Technical	P/E Ratio	Current Yield	% Est'd		
777	BOK Financial	(NDQ)	48.33	4	3	10.9	3.6	Bank (Midwest)	49	533	MDU Resources	16.43	4	3	14.8	4.6	Natural Gas (Div.)	95	
1175	Ball Corp.		65.15	2	2	20.1	0.8	Packaging & Container	51	1719	MSC Industrial Direct	66.99	4	5	18.4	2.6	Machinery	37	
2505	Bank of Hawaii		61.29	3	3	15.4	2.9	Bank	54	717	MacDonald Dettwiler	(TSE)	84.70	2	4	19.8	1.7	Aerospace/Defense	29
2506	Bank of Montreal	(TSE)	71.53	3	3	10.3	4.8	Bank	54	2565	MasterCard Inc.	81.97	2	2	22.5	0.9	Financial Svcs. (Div.)	57	
176	Baxter Int'l Inc.		36.19	-	-	24.5	1.3	Med Supp Invasive	3	2314	Mattel, Inc.	(NDQ)	31.17	3	4	22.0	4.9	Recreation	21
205	Bio-Rad Labs. 'A'		124.66	3	2	33.0	NIL	Med Supp Non-Invasive	4	452	McGraw Hill Fin'l	83.59	2	3	18.1	1.7	Information Services	9	
2229	Black Hills		52.03	3	5	19.3	3.2	Electric Utility (West)	36	1925	Mead Johnson Nutrition	67.92	3	3	20.5	2.4	Food Processing	10	
1990	Brit. Amer Tobac. ADR	(ASE)	108.93	3	4	15.9	4.2	Tobacco	14	812	MEDNAX, Inc.	65.98	2	3	16.7	NIL	Medical Services	31	
1743	Brookfield Infrastruc.		35.49	3	4	15.9	6.0	Diversified Co.	58	768	Mercury General	49.03	3	5	17.6	5.1	Insurance (Prop/Cas.)	6	
2541	Brown & Brown		31.56	3	4	17.9	1.6	Financial Svcs. (Div.)	57	1952	Metro Inc.	(TSE)	41.05	1	3	18.7	1.4	Retail/Wholesale Food	24
2580	CA, Inc.		27.57	3	4	15.0	3.8	Computer Software	26	1370	Microchip Technology	(NDQ)	41.26	3	3	14.5	3.5	Semiconductor	45
386	C.H. Robinson	(NDQ)	69.69	3	5	19.3	2.5	Industrial Services	38	1787	Middlesex Water	(NDQ)	28.56	3	3	22.5	2.8	Water Utility	18
1973	CME Group	(NDQ)	93.31	3	3	23.3	2.6	Brokers & Exchanges	23	1974	Molson Coors Brewing	83.87	3	2	19.3	2.0	Beverage	8	
906	CMS Energy Corp.		39.87	2	4	20.2	3.1	Electric Util. (Central)	19	1926	Mondelez Int'l	(NDQ)	37.05	2	2	18.8	1.9	Food Processing	10
1908	Campbell Soup		57.21	2	4	21.2	2.2	Food Processing	10	2449	Monsanto Co.	91.70	4	3	17.3	2.4	Chemical (Diversified)	50	
341	Can. National Railway		55.12	3	4	16.7	1.7	Railroad	70	1131	NVR, Inc.	1550.13	1	3	14.9	NIL	Homebuilding	47	
1981	Canon Inc. ADR		27.75	3	3	13.0	4.5	Foreign Electronics	78	2518	Natl' Bank of Canada	(TSE)	37.38	3	3	8.1	6.0	Bank	54
1503	Capitol Fed. Fin'l	(NDQ)	12.10	3	2	20.2	2.8	Thrift	39	148	NextEra Energy	115.35	2	5	18.9	3.1	Electric Utility (East)	44	
159	Caterpillar Inc.		63.93	4	3	17.6	4.8	Heavy Truck & Equip	63	454	Nielsen Hldgs. plc	45.13	2	3	16.1	2.5	Information Services	9	
823	Cerner Corp.	(NDQ)	53.71	2	4	23.6	NIL	Healthcare Information	16	347	Norfolk Southern	71.42	-	-	12.8	3.3	Railroad	70	
1811	Check Point Software	(NDQ)	76.69	2	3	18.9	NIL	E-Commerce	22	1508	Northwest Bancshares (NDQ)	12.10	3	1	16.4	5.0	Thrift	39	
544	Chesapeake Utilities		66.37	1	4	22.2	1.8	Natural Gas Utility	20	1626	Novo Nordisk ADR	46.58	1	2	20.5	1.9	Drug	35	
800	Cigna Corp.		128.18	-	-	14.1	NIL	Medical Services	31	915	OGE Energy	26.28	3	4	14.3	4.4	Electric Util. (Central)	19	
764	Cincinnati Financial	(NDQ)	61.24	2	3	20.1	3.1	Insurance (Prop/Cas.)	6	512	Occidental Petroleum	65.22	4	4	NMF	4.6	Petroleum (Integrated)	87	
387	Cintas Corp.	(NDQ)	83.49	1	2	20.8	1.3	Industrial Services	38	2395	Omnicom Group	71.62	2	3	15.4	3.0	Advertising	7	
946	Cisco Systems	(NDQ)	22.65	3	3	10.1	4.6	Telecom. Equipment	81	2128	O'Reilly Automotive	(NDQ)	236.29	1	3	24.1	NIL	Retail Automotive	18
1190	Clorox Co.		128.68	1	3	26.1	2.4	Household Products	5	227	Owens & Minor	36.99	3	3	19.6	2.8	Med Supp Non-Invasive	4	
2606	Cognizant Technology	(NDQ)	52.33	2	3	15.8	NIL	IT Services	1	2519	PNC Financial Serv.	82.20	3	2	10.7	2.5	Bank	54	
1021	Comcast Corp.	(NDQ)	58.21	3	3	32.0	1.9	Cable TV	69	149	PPL Corp.	36.13	-	-	14.8	4.2	Electric Utility (East)	44	
210	Cooper Cos.		128.00	3	4	20.5	NIL	Med Supp Non-Invasive	4	367	Panera Bread Co.	(NDQ)	184.72	2	3	29.2	NIL	Restaurant	11
2124	Copart, Inc.	(NDQ)	34.11	2	2	17.5	NIL	Retail Automotive	18	368	Papa John's Int'l	(NDQ)	46.44	3	3	20.0	1.5	Restaurant	41
358	Cracker Barrel	(NDQ)	131.43	2	5	17.5	3.3	Restaurant	11	789	Park National	(ASE)	82.90	3	2	15.0	4.5	Bank (Midwest)	19
1207	DNP Select Inc. Fund		9.36	-	-	NMF	4.7	Investment Co.	-	1765	Parker-Hannifin	99.73	4	4	16.0	2.5	Diversified Co.	58	
2608	DST Systems		99.46	3	2	15.7	1.3	IT Services	1	228	Patterson Cos.	(NDQ)	41.28	2	4	18.2	2.3	Med Supp Non-Invasive	4
909	DTE Energy		86.85	2	3	18.1	3.5	Electric Util. (Central)	19	2567	PayPal Holdings	(NDQ)	32.70	-	-	29.2	NIL	Financial Svcs. (Div.)	57
1748	Danaher Corp.		85.19	1	2	18.0	0.6	Diversified Co.	58	606	Pembina Pipeline Corp. (TSE)	29.75	3	3	24.4	6.2	Oil/Gas Distribution	74	
802	DaVita HealthCare		62.25	2	3	15.9	NIL	Medical Services	31	1509	People's United Fin'l	(NDQ)	14.54	3	2	16.2	4.7	Thrift	39
181	Dentsply Int'l	(NDQ)	56.99	-	-	20.6	0.5	Med Supp Invasive	3	1991	Philip Morris Int'l	90.02	3	3	20.3	4.5	Tobacco	14	
1033	Deutsche Telekom ADR (PNK)		16.36	3	3	23.4	3.4	Telecom. Utility	76	549	Piedmont Natural Gas	59.14	-	-	24.3	2.2	Natural Gas Utility	20	
2140	Dollar Tree, Inc.	(NDQ)	75.24	3	3	20.6	NIL	Retail Store	71	2238	Portland General	39.92	3	4	17.4	3.2	Electric Utility (West)	36	
143	Dominion Resources		70.43	2	5	20.7	4.1	Electric Utility (East)	44	2568	Price (T. Rowe) Group (NDQ)	66.49	3	4	13.9	3.3	Financial Svcs. (Div.)	57	
1710	Donaldson Co.		29.61	4	5	21.2	2.3	Machinery	37	770	Progressive (Ohio)	30.88	3	2	15.5	2.2	Insurance (Prop/Cas.)	6	
1711	Dover Corp.		58.13	4	4	15.7	2.9	Machinery	37	813	Quest Diagnostics	60.55	3	2	12.2	2.6	Medical Services	31	
1973	Dr Pepper Snapple		90.32	1	3	21.7	2.2	Beverage	8	771	RLJ Corp.	60.79	2	3	27.0	1.3	Insurance (Prop/Cas.)	6	
144	Duke Energy		78.93	3	5	17.2	4.3	Electric Utility (East)	44	1539	Realty Income Corp.	56.35	2	4	46.2	4.2	R.E.I.T.	28	
1401	EMC Corp.		24.17	-	-	27.2	1.9	Computers/Peripherals	64	1559	Reinsurance Group	84.69	3	3	9.4	1.8	Insurance (Life)	79	
986	Eaton Corp. plc		54.48	4	4	12.6	4.0	Auto Parts	59	2028	RenaissanceRe Hldgs.	113.15	3	3	11.5	1.1	Reinsurance	32	
2230	Edison Int'l		63.40	3	4	15.9	3.1	Electric Utility (West)	36	419	Republic Services	43.84	3	3	20.4	2.8	Environmental	62	
2310	El Paso Electric		41.22	3	3	20.7	3.0	Electric Utility (West)	36	1992	Reynolds American	47.69	1	3	23.0	3.0	Tobacco	14	
910	Empire Dist. Elec.		28.20	-	-	19.6	3.7	Electric Util. (Central)	19	1646	Robert Half Int'l	38.22	3	3	12.7	2.2	Human Resources	17	
603	Enbridge Inc.	(TSE)	44.77	3	4	18.3	4.7	Oil/Gas Distribution	74	408	Rollins, Inc.	24.88	2	3	33.2	1.6	Industrial Services	38	
2023	Endurance Specialty		60.99	3	2	9.6	2.3	Reinsurance	32	2220	Ross Stores	(NDQ)	54.53	1	3	20.7	1.0	Retail (Softlines)	75
447	Equifax, Inc.		93.22	1	2	19.5	1.4	Information Services	9	2593	SAP SE	74.88	3	2	21.6	1.7	Computer Software	26	
765	Erie Indemnity	(NDQ)	96.57	2	3	26.5	3.0	Insurance (Prop/Cas.)	5	2616	SEI Investments	(NDQ)	34.60	3	1	16.8	1.5	IT Services	1
390	Expeditors Int'l	(NDQ)	45.90	3	3	19.1	1.6	Industrial Services	38	152	SCANIA Corp.	65.28	3	3	16.6	3.5	Electric Utility (East)	44	
448	FactSet Research		137.59	2	2	22.0	1.3	Information Services	9	2433	Schlumberger Ltd.	67.80	4	3	NMF	2.9	Oilfield Svcs/Equip.	94	
1138	Fastenal Co.	(NDQ)	43.36	3	4	23.6	2.8	Retail Building Supply	2	2342	Scrimps Networks	55.00	3	5	11.1	1.7	Entertainment	53	
1524	Federal Rty. Inv. Trust		148.77	1	3	48.9	2.6	R.E.I.T.	28	1934	Sensient Techn.	54.98	3	2	16.2	2.0	Food Processing	10	
309	FedEx Corp.		129.77	3	3	11.5	0.8	Air Transport	33	1025	Shaw Commun. 'B'	(TSE)	23.31	4	4	13.0	5.1	Cable TV	69
2550	Fidelity National		57.93	2	3	18.2	1.8	Financial Svcs. (Div.)	57	1542	Simon Property Group	178.93	2	2	34.3	3.6	R.E.I.T.	28	
2610	Fiserv Inc.	(NDQ)	92.09	1	3	22.9	NIL	IT Services	1	1728	Snap-on Inc.	135.78	1	1	15.5	1.8	Machinery	37	
1751	Fortis Inc.	(TSE)	37.14	3	3	17.7	4.0	Diversified Co.	58	1185	Sonoco Products	40.25	3	3	15.5	3.5	Packaging & Container	51	
2553	Franklin Resources		32.09	4	3	9.3	2.3	Financial Svcs. (Div.)	57	550	South Jersey Inds.	26.19	3	5	16.6	4.1	Natural Gas Utility	20	
1308	Garmin Ltd.	(NDQ)	33.95	4	3	14.8	6.1	Electrical Equipment	68	153	Southern Co.	49.20	3	3	17.4	4.6	Electric Utility (East)	44	
450	Gartner Inc.		80.94	1	2	30.1	NIL	Information Services	9	1729	Stanley Black & Decker	90.63	2	2	14.0	2.4	Machinery	37	
394	Genpact Limited		25.04	1	3	21.4	NIL	Industrial Services	38	420	Stericycle Inc.	(NDQ)	106.03	3	4	21.3	NIL	Environmental	62
2555	Global Payments		52.47	1	1	22.2	0.1	Financial Svcs. (Div.)	57	192	STERIS Inc.	66.47	1	2	17.3	1.5	Med Supp Invasive	3	

# HIGHEST DIVIDEND YIELDING STOCKS (Based upon estimated year-ahead dividends per share)

Page No.	Stock Name	Recent Price	Time-liness	Safety Rank	Current P/E Ratio	% Est'd Yield	Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Time-liness	Safety Rank	Current P/E Ratio	% Est'd Yield	Industry Group	Industry Rank
624	Williams Partners L.P.	13.26	-	3	17.7	25.9	Pipeline MLPs	91	617	Enterprise Products	20.80	3	3	16.1	7.6	Pipeline MLPs	91
609	Williams Cos.	11.98	-	3	12.4	21.4	Oil/Gas Distribution	74	2566	NaviCorp	8.50	-	3	4.6	7.5	Financial Svcs. (Div.)	57
615	Energy Transfer	20.34	5	3	11.6	20.7	Pipeline MLPs	91	1382	STMicroelectronics	5.35	5	3	38.2	7.5	Semiconductor	45
614	DCP Midstream Partners	16.81	4	3	8.2	18.6	Pipeline MLPs	91	2164	Barnes & Noble	8.09	-	4	18.4	7.4	Retail (Hardlines)	66
616	EnLink Midstream Part.	8.64	4	3	15.2	18.1	Pipeline MLPs	91	399	Iron Mountain	26.56	4	3	20.3	7.3	Industrial Services	38
621	Plains All Amer. Pipe.	15.88	4	3	10.2	17.8	Pipeline MLPs	91	2361	Las Vegas Sands	39.58	4	3	16.4	7.3	Hotel/Gaming	48
622	Suburban Propane	22.27	5	3	11.1	15.9	Pipeline MLPs	91	1309	Gen'l Cable	9.96	5	4	8.8	7.2	Electrical Equipment	68
2651	Gladstone Capital	5.71	4	3	5.9	14.7	Public/Private Equity	86	2420	Ensc plc	8.47	5	3	3.5	7.1	Oilfield Svcs/Equip.	94
1598	CVR Partners, LP	5.30	5	3	6.0	14.2	Chemical (Basic)	92	1533	Liberty Property	27.57	4	3	17.3	6.9	R.E.I.T.	28
568	Kronos Worldwide	4.62	4	3	27.2	13.0	Chemical (Specialty)	56	1628	PDL BioPharma	2.91	5	5	2.4	6.9	Drug	35
1211	Liberty All-Star	4.34	-	2	NMF	12.9	Investment Co.	-	1546	W.P. Carey Inc.	55.90	3	3	38.3	6.9	R.E.I.T.	25
605	ONEOK Inc.	20.63	3	3	12.4	12.7	Oil/Gas Distribution	74	307	Copa Holdings, S.A.	49.44	4	3	10.0	6.8	Air Transport	33
620	ONEOK Partners L.P.	25.88	4	3	12.9	12.2	Pipeline MLPs	91	102	Daimler AG	66.03	3	3	7.5	6.8	Automotive	67
1638	CDI Corp.	4.54	5	3	NMF	11.5	Human Resources	17	1361	Cypress Semic.	6.61	4	3	11.4	6.7	Semiconductor	45
1584	BHP Billiton Ltd. ADR	21.79	5	3	14.5	11.4	Metals & Mining (Div.)	97	2427	National Oilwell Varco	27.56	5	3	20.4	6.7	Oilfield Svcs/Equip.	94
1513	Annaly Capital Mgmt.	9.77	4	3	8.8	11.3	R.E.I.T.	28	2192	Pier 1 Imports	4.21	5	4	8.8	6.7	Retail (Hardlines)	66
1036	Windstream Hldgs.	5.34	-	4	NMF	11.2	Telecom. Utility	76	1791	BGC Partners	8.48	2	4	10.0	6.6	Brokers & Exchanges	23
623	Sunoco Logistics Part.	17.19	4	3	12.4	10.6	Pipeline MLPs	91	2307	Cedar Fair L.P.	49.81	3	3	14.6	6.6	Recreation	21
426	Aberdeen Australia Fd.	4.86	-	3	NMF	10.3	Investment Co.(Foreign)	91	608	TransCanada Corp.	34.44	4	2	16.2	6.6	Oil/Gas Distribution	74
1830	StoneMor Partners L.P.	26.20	3	3	NMF	10.1	Funeral Services	34	948	Comtech Telecom.	18.44	5	3	12.4	6.5	Telecom. Equipment	81
2533	AllianceBernstein Hldg.	17.27	4	3	9.5	10.0	Financial Svcs. (Div.)	57	1180	Greif, Inc.	25.89	4	3	11.8	6.5	Packaging & Container	51
2649	Blackstone Group LP	24.46	3	3	6.4	10.0	Public/Private Equity	86	518	Total ADR	41.40	4	2	12.2	6.5	Petroleum (Integrated)	92
1034	Frontier Commun.	4.32	4	4	48.0	9.7	Telecom. Utility	76	1605	Polash Corp.	15.84	5	3	14.8	6.3	Chemical (Basic)	92
749	Russel Metals	15.84	5	3	14.1	9.6	Steel	93	1544	Ventas, Inc.	50.08	3	3	29.6	6.3	R.E.I.T.	28
1526	Geo Group (The)	27.45	3	3	13.0	9.5	R.E.I.T.	28	2532	Aircastle Ltd.	15.55	4	3	7.7	6.2	Financial Svcs. (Div.)	57
1204	Aberdeen Asia-Pac. Fd.	4.48	-	4	NMF	9.4	Investment Co.	-	1906	Cal-Maine Foods	48.56	2	3	6.6	6.2	Food Processing	10
613	Buckeye Partners L.P.	51.55	4	3	14.6	9.4	Pipeline MLPs	91	1604	Olin Corp.	12.90	-	3	15.7	6.2	Chemical (Basic)	92
1530	Hospitality Properties	22.17	3	3	12.9	9.2	R.E.I.T.	28	606	Pembina Pipeline Corp.	29.75	3	2	24.4	6.2	Oil/Gas Distribution	74
1230	Pattern Energy Group	16.11	4	3	55.6	9.2	Power	85	1540	Ryman Hospitality	46.03	2	3	16.5	6.2	R.E.I.T.	28
531	Enerplus Corp.	3.96	4	4	NMF	9.1	Natural Gas (Div.)	91	1549	Welltower Inc.	55.74	3	3	23.6	6.2	R.E.I.T.	28
402	Macquarie Infrastructure	54.10	3	3	47.5	9.1	Industrial Services	38	1308	Garmin Ltd.	33.95	4	2	14.8	6.1	Electrical Equipment	68
1212	MFS Multimarket	5.38	-	4	NMF	8.9	Investment Co.	-	2392	Lamar Advertising	50.13	2	3	16.7	6.1	Advertising	7
515	Royal Dutch Shell 'B'	42.82	5	1	10.4	8.8	Petroleum (Integrated)	87	747	POSCO ADR	36.00	5	3	NMF	6.1	Steel	93
1030	CenturyLink Inc.	24.81	4	3	10.2	8.7	Telecom. Utility	76	1743	Brookfield Infrastruc.	35.49	3	2	15.9	6.0	Diversified Co.	58
332	GasLog Ltd.	6.43	5	4	20.1	8.7	Maritime	88	1531	Host Hotels & Resorts	13.85	4	3	19.0	6.0	R.E.I.T.	28
1411	Seagate Technology	29.41	4	3	9.0	8.6	Computers/Peripherals	64	2448	Huntsman Corp.	8.37	4	4	4.8	6.0	Chemical (Diversified)	50
2647	Apollo Global Mgmt	13.17	4	3	7.2	8.5	Public/Private Equity	86	2518	Nat'l Bank of Canada	37.38	3	2	8.1	6.0	Bank	54
2221	Stage Stores	7.05	5	4	10.2	8.5	Retail (Softlines)	75	2394	National CineMedia	14.63	3	3	25.7	6.0	Advertising	7
502	BP PLC ADR	28.95	5	3	14.9	8.3	Petroleum (Integrated)	87	2006	Daktronics Inc.	7.49	4	3	16.3	5.9	Entertainment Tech	46
2428	Noble Corp. plc	7.25	4	3	5.2	8.3	Oilfield Svcs/Equip.	94	1618	GlaxoSmithKline ADR	39.34	4	1	20.8	5.9	Drug	35
1032	Consol. Commun.	18.87	3	3	25.5	8.2	Telecom. Utility	76	105	Ford Motor	11.35	3	3	5.6	5.8	Automotive	67
1035	Telefonica SA ADR	9.74	5	4	12.8	8.2	Telecom. Utility	76	1228	Northland Power	18.50	3	3	23.7	5.8	Power	85
1528	HCP Inc.	28.33	3	3	13.1	8.1	R.E.I.T.	28	1201	Tupperware Brands	46.80	4	3	12.5	5.8	Household Products	5
1208	Deutsche High Income	7.60	-	4	NMF	8.0	Investment Co.	-	2357	Extended Stay America	11.83	3	3	12.5	5.7	Hotel/Gaming	48
2376	Donnelley (R.R.) & Sons	12.97	4	3	8.0	8.0	Publishing	73	1421	Lexmark Int'l 'A'	25.32	4	3	7.0	5.7	Office Equip/Supplies	82
1518	Corrections Corp. Amer.	28.56	3	3	16.4	7.9	R.E.I.T.	28	1424	Staples, Inc.	8.40	5	3	9.0	5.7	Office Equip/Supplies	82
1803	Greenhill & Co.	23.09	4	3	14.4	7.8	Investment Banking	72	2219	Talored Brands	12.65	4	3	5.2	5.7	Retail (Softlines)	75
511	Murphy Oil Corp.	17.86	5	3	NMF	7.8	Petroleum (Integrated)	87	2382	A.H. Belo	5.75	4	4	30.3	5.6	Newspaper	84
1220	Covanta Holding Corp.	13.02	4	3	46.5	7.7	Power	85	1551	AEGON	4.83	4	3	5.6	5.6	Insurance (Life)	79
2650	Fortress Investment	4.18	3	4	3.3	7.7	Public/Private Equity	86	907	CenterPoint Energy	18.55	4	3	16.1	5.6	Electric Util. (Central)	19

## STOCKS WITH HIGH 3- TO 5-YEAR PRICE APPRECIATION POTENTIAL

Some of the stocks tabulated below are very risky and appreciation potentialities tentative. Please read the full-page reports in Ratings & Reports to gain an understanding of the risks entailed. Some of these stocks may not be timely investment commitments. (See the Performance Ranks below.)

Page No.	Stock Name	Recent Price	3-to 5-year Potential	Time-liness	Safety Rank	Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	3-to 5-year Potential	Time-liness	Safety Rank	Industry Group	Industry Rank
1587	Freep't-McMoran Inc.	5.00	500%	5	4	Metals & Mining (Div.)	97	816	Tenet Healthcare	24.21	260%	4	4	Medical Services	31
987	Federal-Mogul Hldgs.	4.05	495%	4	4	Auto Parts	59	1583	Alliance Resource	12.02	255%	5	3	Metals & Mining (Div.)	97
2387	Tribune Publishing Co.	6.18	465%	-	3	Newspaper	84	803	Envision Healthcare	18.99	255%	3	3	Medical Services	31
1332	GoPro, Inc.	11.39	450%	-	3	Electronics	63	570	Methanex Corp.	25.95	255%	4	3	Chemical (Specialty)	56
332	GasLog Ltd.	6.43	445%	5	4	Maritime	88	2566	NaviCorp	8.50	255%	-	3	Financial Svcs. (Div.)	57
2410	Ultra Petroleum	1.44	420%	5	5	Petroleum (Producing)	96	730	Chart Industries	16.01	245%	5	3	Metal Fabricating	89
2403	Denbury Resources	1.17	415%	5	5	Petroleum (Producing)	96	1568	Eldorado Gold	2.62	245%	5	4	Precious Metals	90
406	Outerwall Inc.	27.01	390%	5	3	Industrial Services	38	616	EnLink Midstream Part.	8.64	245%	4	3	Pipeline MLPs	91
1593	Vale S.A. ADR	2.47	385%	5	4	Metals & Mining (Div.)	97	167	Navistar Int'l	7.14	245%	4	4	Heavy Truck & Equip	83
624	Williams Partners L.P.	13.26	370%	-	3	Pipeline MLPs	91	1634	Valeant Pharm. Int'l	86.95	245%	3	4	Drug	35
2432	Rowan Cos. plc	11.93	360%	4	3	Oilfield Svcs/Equip.	94	540	WPX Energy	4.64	245%	5	4	Natural Gas (Div.)	95
1592	Teck Resources Ltd. 'B'	5.52	355%	5	4	Metals & Mining (Div.)	97	736	NN Inc.	11.06	240%	4	4	Metal Fabricating	89
740	AK Steel Holding	2.21	350%	4	5	Steel	93	2561	Legg Mason	25.93	235%	3	3	Financial Svcs. (Div.)	57
2344	Sirius XM Holdings	3.35	350%	3	4	Entertainment	53	511	Murphy Oil Corp.	17.86	235%	5	3	Petroleum (Integrated)	87
602	Clean Energy Fuels	2.25	345%	4	5	Oil/Gas Distribution	74	1985	Panasonic Corp.	7.47	235%	4	3	Foreign Electronics	78
2405	Marathon Oil Corp.	7.29	345%	5	3	Petroleum (Producing)	96	960	Polycorn, Inc.	8.98	235%	3	3	Telecom. Equipment	81
1818	Rackspace Hosting	16.82	345%	3	3	E-Commerce	22	2221	Stage Stores	7.05	235%	5	4	Retail (Softlines)	75
979	China Auto. Sys.	3.62	340%	5	4	Auto Parts	59	1586	CONSOL Energy	7.53	230%	-	3	Metals & Mining (Div.)	97
1330	Fibit Inc.	14.30	335%	-	3	Electronics	63	331	Frontline Ltd.	8.15	230%	3	5	Maritime	88
334	GulfMark Offshore	3.44	335%	5	4	Maritime	88	1760	LSB Inds.	5.17	230%	5	4	Diversified Co.	58
2563	MGIC Investment	6.33	335%	3	5	Financial Svcs. (Div.)	57	838	Medivation, Inc.	28.17	230%	3	3	Biotechnology	42
1407	Nimble Storage	5.76	325%	4	4	Computers/Peripherals	64	1604	Olin Corp.	12.90	230%	-	3	Chemical (Basic)	92
621	Plains All Amer. Pipe.	15.88	325%	4	3	Pipeline MLPs	91	1181	Owens-Illinois	13.54	230%	5	3	Packaging & Container	51
2170	Conn's, Inc.	13.12	320%	4	5	Retail (Hardlines)	66	1764	Park-Ohio	25.15	230%	4	4	Diversified Co.	58
2448	Huntsman Corp.	8.37	320%	4	4	Chemical (Diversified)	50	2368	Scientific Games	4.87	230%	-	5	Hotel/Gaming	48
988	Mentor, Inc.	6.53	320%	4	4	Auto Parts	59	601	Cheniere Energy	24.46	225%	3	4	Oil/Gas Distribution	74
1007	Avon Products	3.43	310%	-	4	Toiletries/Cosmetics	52	529	Encana Corp.	3.83	225%	5	4	Natural Gas (Div.)	95
595	Sierra Wireless	10.41	310%	3	4	Wireless Networking	43	568	Kronos Worldwide	4.62	225%	4	3	Chemical (Specialty)	56
2545	Crawford & Co. 'B'	4.07	305%	5	4	Financial Svcs. (Div.)	57	1804	Morgan Stanley	22.93	225%	3	3	Investment Banking	72
951	Harmonic, Inc.	3.12	300%	5	3	Telecom. Equipment	81	958	NewStar Inc.	20.82	225%	4	3	Telecom. Equipment	81
1232	SunEdison Inc.	2.63	300%	4	5	Power	85	2407	Oasis Petroleum	4.95	225%	5	5	Petroleum (Producing)	96
615	Energy Transfer	20.34	295%	5	3	Pipeline MLPs	91	1134	TRI Pointe Group	9.29	225%	3	3	Homebuilding	47
2583	FireEye Inc.	12.02	295%	4	4	Computer Software	26	1361	Cypress Semic.	6.61	220%	4	3	Semiconductor	48
2650	Fortress Investment	4.18	295%	3	4	Public/Private Equity	86	2006	Daktronics Inc.	7.49	220%	5	3	Entertainment Tech	47
988	Fuel Sys. Solns.	3.70	290%	-	4	Auto Parts	59	2174	Fossil Group	33.67	220%	5	3	Retail (Hardlines)	66
1574	Petrium Resources	4.86	290%	3	5	Precious Metals	90	2630	IAC/InterActiveCorp	40.42	220%	3	3	Internet	30
1343	Skullcandy, Inc.	3.19	290%	4	5	Electronics	63	2426	Nabors Inds.	4.26	220%	5	4	Oilfield Svcs/Equip.	94
1123	Beazer Homes USA	6.50	285%	5	3	Homebuilding	47	1627	Opko Health	7.76	220%	2	3	Drug	34
2014	Synchronoss Techn.	22.83	285%	3	3	Entertainment Tech	46	1402	Extreme Networks	2.52	215%	3	4	Computers/Peripherals	64
2205	Ascena Retail Group	6.82	280%	4	3	Retail (Softlines)	75	835	Intercept Pharmac.	93.89	215%	3	4	Biotechnology	42
333	Golar LNG Ltd.	14.50	280%	4	4	Maritime	88	1761	McDermott Int'l	2.53	215%	4	5	Diversified Co.	58
1243	MasTec	13.10	280%	4	3	Engineering & Const	80	1603	Mosaic Company	23.86	215%	5	3	Chemical (Basic)	92
2439	Weatherford Int'l plc	6.34	280%	4	4	Oilfield Svcs/Equip.	94	1822	Spunk Inc.	31.92	215%	2	3	E-Commerce	22
2199	Tailored Brands	12.65	275%	4	3	Retail (Softlines)	75	1955	SUPERVALU INC.	4.14	215%	-	5	Retail/Wholesale Food	24
846	XenPort, Inc.	4.18	270%	4	5	Biotechnology	42	1732	United Rentals	44.78	215%	3	4	Machinery	37
943	Black Box	8.18	265%	5	3	Telecom. Equipment	81	609	Williams Cos.	11.98	215%	-	3	Oil/Gas Distribution	74
801	Community Health	18.43	265%	4	3	Medical Services	31	2133	Aaron's Inc.	20.96	210%	4	3	Retail Store	72
330	Diana Shipping	2.20	265%	5	3	Maritime	88	1809	Akamai Technologies	39.57	210%	3	3	E-Commerce	21
2350	Viacom Inc. 'B'	32.86	265%	4	3	Entertainment	53	741	ArcelorMittal	3.23	210%	4	3	Steel	93
1628	PDL BioPharma	2.91	260%	5	5	Drug	35	1638	CDI Corp.	4.54	210%	5	3	Human Resources	77



February 19, 2016

## SUMMARY AND INDEX • THE VALUE LINE INVESTMENT SURVEY

# BIGGEST "FREE FLOW" CASH GENERATORS Stocks of companies that have earned more "cash flow" in the last 5 years than was required to build plant and pay dividends

Page No.	Stock Name	Recent Price	Ratio "Cash Flow" To Cash Out	Time-liness	Safety Rank	Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Ratio "Cash Flow" To Cash Out	Time-liness	Safety Rank	Industry Group	Industry Rank
2652	KKR & Co. L.P.	12.62	87.97	4	3	Public/Private Equity	86	2590	PTC Inc.	27.78	6.91	3	3	Computer Software	26
2108	Iconix Brand Group	6.76	74.05	5	4	Apparel	60	2581	Cadence Design Sys.	19.82	6.88	2	3	Computer Software	26
1811	Check Point Software	76.69	69.70	2	2	E-Commerce	22	957	NETGEAR	35.87	6.76	2	3	Telecom. Equipment	81
837	Jazz Pharm. plc	116.70	25.88	3	3	Biotechnology	42	2553	Franklin Resources	32.09	6.75	4	2	Financial Svcs. (Div.)	57
2636	Priceline Group (The)	991.29	25.78	2	3	Internet	30	1130	Meritage Homes	29.34	6.65	3	3	Homebuilding	47
2632	Netflix, Inc.	86.13	20.39	3	3	Internet	30	2337	Lions Gate Entertain.	19.13	6.60	3	3	Entertainment	53
1617	Gilead Sciences	87.25	19.21	3	3	Drug	35	963	Veritone Systems	20.71	6.58	4	4	Telecom. Equipment	81
1720	Middleby Corp. (The)	83.34	16.96	2	3	Machinery	37	725	TASER Int'l	15.37	6.33	3	4	Aerospace/Defense	29
1610	Allergan plc	272.34	15.55	-	2	Drug	35	157	Acutant Corp.	21.49	6.31	4	3	Heavy Truck & Equip	83
812	MEDNAX, Inc.	65.98	15.41	2	2	Medical Services	31	1315	Universal Display	42.93	6.31	2	3	Electrical Equipment	68
2163	Avis Budget Group	24.89	14.83	3	4	Retail (Hardlines)	66	1733	Wabtec Corp.	60.58	6.29	3	3	Machinery	37
2552	FleetCor Technologies	113.87	14.17	2	3	Financial Svcs. (Div.)	57	2327	Winnebago	16.53	6.29	3	3	Recreation	21
2331	Discovery Communic.	24.72	13.92	3	3	Entertainment	53	713	HEICO Corp.	54.88	6.19	2	3	Aerospace/Defense	29
1131	NVR, Inc.	1550.13	13.72	1	2	Homebuilding	47	1410	ScanSource	31.30	6.16	3	3	Computers/Peripherals	64
1357	CEVA, Inc.	18.04	13.37	2	4	Semiconductor	45	135	Thermo Fisher Sci.	124.45	6.16	2	2	Precision Instrument	55
1392	Kulicks & Soffa	11.20	13.23	3	4	Semiconductor Equip	41	2008	Electronic Arts	58.25	6.10	1	3	Entertainment Tech	46
1615	Calgene Corp.	100.50	13.08	2	3	Drug	35	196	Varian Medical Sys.	74.87	6.09	3	1	Med Supp. Invasive	3
2012	Rovi Corp.	17.79	12.78	4	3	Entertainment Tech	46	942	Arms Int'l plc	23.10	5.97	3	3	Telecom. Equipment	81
2603	CACI Int'l	93.82	12.65	2	3	IT Services	1	2579	Autodesk, Inc.	42.64	5.92	3	3	Computer Software	26
2578	ANSYS, Inc.	83.10	12.46	3	2	Computer Software	26	566	Innospec Inc.	47.76	5.89	2	3	Chemical (Specialty)	56
1975	Monster Beverage	118.91	11.74	2	3	Beverage	8	2181	Insight Enterprises	22.93	5.86	3	3	Retail (Hardlines)	66
968	Express Scripts	67.16	11.52	2	3	Pharmacy Services	15	1576	Silver Wheaton	14.16	5.86	3	3	Precious Metals	90
727	TransDigm Group	187.29	11.48	1	3	Aerospace/Defense	29	599	Zebra Techn. 'A'	54.68	5.79	3	3	Wireless Networking	43
2329	AMC Networks	63.86	11.31	2	3	Entertainment	53	2575	WEX Inc.	59.49	5.77	3	3	Financial Svcs. (Div.)	57
1136	Toll Brothers	25.05	11.29	3	3	Homebuilding	47	1323	Arrow Electronics	52.91	5.69	3	3	Electronics	63
839	Myriad Genetics	34.60	10.84	2	3	Biotechnology	42	2595	Synopsis, Inc.	40.96	5.67	3	1	Computer Software	26
1316	WESCO Int'l	41.48	10.58	4	3	Electrical Equipment	68	421	Tetra Tech	25.80	5.66	3	3	Environmental	82
2596	Teradata Corp.	22.60	9.94	4	3	Computer Software	26	955	Marvell Technology	8.70	5.61	4	3	Telecom. Equipment	81
173	ABIOMED Inc.	71.00	9.83	2	3	Med Supp. Invasive	3	420	Stericycle Inc.	106.03	5.54	3	2	Environmental	62
950	F5 Networks	87.61	9.80	3	3	Telecom. Equipment	81	1748	Danaher Corp.	85.19	5.52	1	2	Diversified Co.	58
2368	Scientific Games	4.87	9.66	-	5	Hotel/Gaming	48	2589	Oracle Corp.	35.08	5.51	3	1	Computer Software	26
230	Schein (Henry)	147.62	9.40	1	3	Med Supp. Non-Invasive	4	844	United Therapeutics	119.32	5.49	3	3	Biotechnology	42
2613	Manhattan Assoc.	46.23	9.35	1	3	IT Services	1	1350	Advanced Energy	27.71	5.46	3	3	Semiconductor	45
1010	Helen of Troy Ltd.	86.93	9.26	2	3	Toiletries/Cosmetics	52	1328	Celestica Inc.	9.14	5.35	3	3	Electronics	63
2565	MasterCard Inc.	81.97	9.18	2	2	Financial Svcs. (Div.)	57	1359	Cirrus Logic	32.23	5.35	3	3	Semiconductor	45
1613	Biogen	249.99	9.16	3	3	Drug	35	2599	ACI Worldwide	16.23	5.33	3	3	IT Services	1
590	InterDigital Inc.	42.49	8.81	3	3	Wireless Networking	43	1238	Chicago Bridge & Iron	34.52	5.32	4	3	Engineering & Const	80
1647	Team Health Hldgs.	33.56	8.30	-	3	Human Resources	17	187	Intuitive Surgical	508.82	5.32	2	3	Med Supp. Invasive	3
938	Vonage Holdings	4.51	8.23	3	3	Telecom. Services	25	1236	AECOM Techn.	23.78	5.31	4	3	Engineering & Const	80
1128	Lennar Corp.	38.42	8.18	3	3	Homebuilding	47	178	Boston Scientific	16.87	5.25	2	3	Med Supp. Invasive	3
1412	Tech Data	64.02	7.99	2	3	Computers/Peripherals	64	711	Esterline Technologies	52.65	5.21	3	3	Aerospace/Defense	29
2650	Fortress Investment	4.18	7.67	3	4	Public/Private Equity	86	1225	Generac Holdings	27.92	5.21	4	3	Power	85
2158	Madden (Steven) Ltd.	30.88	7.66	3	3	Shoe	40	138	Waters Corp.	115.83	5.21	2	2	Precision Instrument	55
1314	Trimble Nav. Ltd.	18.82	7.60	3	3	Electrical Equipment	68	1997	Bridgepoint Education	6.42	5.20	4	4	Educational Services	77
1609	Alexion Pharm.	136.46	7.48	3	3	Drug	35	585	CalAmp Corp.	16.27	5.16	3	4	Wireless Networking	43
2005	DTS, Inc.	21.50	7.43	4	4	Entertainment Tech	46	450	Gartner Inc.	80.94	5.12	1	2	Information Services	9
1346	3D Systems	8.51	7.40	4	3	Electronics	63	1630	Perrigo Co. plc	138.77	5.11	3	3	Drug	35
194	SurModics, Inc.	18.52	7.08	3	3	Med Supp. Invasive	3	962	Synapics	71.48	5.09	3	3	Telecom. Equipment	81
1322	Anixter Int'l	38.77	7.05	4	3	Electronics	63	1976	National Beverage	35.78	5.05	1	3	Beverage	8
1726	Roper Tech.	161.83	7.02	3	1	Machinery	37	2609	Fair Isaac	91.38	5.04	1	3	IT Services	1

## BEST PERFORMING STOCKS (Measured by Price Change in the Last 13 Weeks)

Page No.	Stock Name	Ticker	Recent Price	Percent Change In Price	Time-liness	Safety Rank
2012	Rovi Corp.	ROVI	17.79	82.1%	4	3
1949	Keurig Green Mountain	GMCR	89.49	78.8%	4	3
1567	Barick Gold	ABX	11.22	55.8%	4	4
1566	AngloGold Ashanti ADS	AUJ	10.41	50.0%	4	4
201	Affymetrix Inc.	AFFX	14.04	49.8%	-	4
555	Airgas Inc.	ARG	140.14	46.0%	-	1
824	Computer Prog. & Sys.	CPSI	56.81	40.7%	3	3
1572	Newmont Mining	NEM	24.30	39.2%	4	3
1571	Kinross Gold	KGC	2.43	37.3%	4	4
2167	Big 5 Sporting Goods	BGFV	12.65	36.3%	4	4
1940	Tyson Foods 'A'	TSN	60.85	34.5%	1	3
1579	Yamana Gold	AUY	2.36	33.3%	5	5
202	Alere Inc.	ALR	53.14	32.9%	-	3
1016	Sally Beauty	SBH	30.18	32.5%	3	3
538	Questar Corp.	STR	24.90	31.0%	-	1
1390	Electro Scientific	ESIO	6.69	29.4%	-	4
1565	Agnico Eagle Mines	AEM	33.11	29.1%	3	3
2314	Mattel, Inc.	MAT	31.17	28.1%	3	2
910	Empire Dist. Elec.	EDE	28.20	27.5%	-	2
544	Chesapeake Utilities	CPK	66.37	25.3%	1	2
1918	Hormel Foods	HRL	41.43	23.6%	1	1
119	Coherent, Inc.	COHR	78.04	23.5%	2	3
2325	Sturm, Ruger & Co.	RGR	62.51	22.7%	3	3
1573	Pan Amer. Silver	PAAS	8.20	21.7%	4	4
2215	Francesca's Hldgs.	FRAN	17.23	21.5%	3	3
314	Spirit Airlines	SAVE	42.73	21.3%	3	3
1570	Goldcorp Inc.	GG	14.16	21.2%	4	3
2225	Vera Bradley Inc.	VRA	14.36	20.7%	3	3
914	MGE Energy	MGEE	51.36	20.2%	1	1
1785	Conn. Water Services	CTWS	42.17	20.1%	2	3
1539	Realty Income Corp.	O	56.36	20.1%	2	2
913	ITC Holdings	ITC	38.65	20.0%	-	2
1933	Saputo Inc.	SAP.TO	37.72	19.5%	2	1
1223	First Solar, Inc.	FSR	66.48	19.0%	3	3
1564	ASA Gold & Precious	ASA	8.49	18.4%	-	3
1908	Campbell Soup	CPB	57.21	18.4%	2	2
1789	York Water Co. (The)	YORW	27.76	18.4%	2	3
2209	Children's Place	PLCE	62.21	18.2%	3	3
940	ADTRAN, Inc.	ADTN	18.29	17.5%	3	3
903	Alliant Energy	LNT	68.35	17.5%	2	2
142	Consol. Edison	ED	73.61	17.5%	3	1

## WORST PERFORMING STOCKS (Measured by Price Change in the Last 13 Weeks)

Page No.	Stock Name	Ticker	Recent Price	Percent Change In Price	Time-liness	Safety Rank
337	Teekay Corp.	TK	5.58	-80.4%	4	4
1407	Nimble Storage	NMBL	5.76	-74.5%	4	4
2434	Seadrill Ltd.	SDRL	1.73	-73.9%	5	5
523	Chesapeake Energy	CHK	1.95	-72.4%	5	4
2403	Denbury Resources	DNR	1.17	-72.1%	5	5
2410	Ultra Petroleum	UPL	1.44	-72.1%	5	5
2411	Whiting Petroleum	WLL	5.66	-68.6%	5	3
609	Williams Cos.	WMB	11.98	-67.5%	-	4
2171	Container Store Group	TCS	4.00	-67.0%	-	4
1553	Genworth Fin'l	GNW	1.67	-64.9%	4	4
330	Diana Shipping	DSX	2.20	-64.1%	5	3
2405	Marathon Oil Corp.	MRO	7.29	-61.2%	5	5
2407	Oasis Petroleum	OAS	4.95	-60.7%	5	5
2631	LinkedIn	LNKD	100.98	-60.5%	2	3
1330	Filbit Inc.	FIT	14.30	-60.2%	-	3
624	Williams Partners L.P.	WPZ	13.26	-59.9%	-	3
602	Clean Energy Fuels	CLNE	2.25	-59.5%	4	5
2548	EZCORP, Inc.	EZPW	2.65	-59.4%	-	3
1009	Elizabeth Arden	RDEN	5.38	-58.8%	4	3
1761	McDermott Int'l	MDR	2.53	-57.4%	4	5
2414	C&J Energy Svcs.	CJES	2.26	-57.0%	5	5
406	Outerwall Inc.	OUTR	27.01	-56.9%	5	3
530	Energizer Corp.	EGN	26.77	-56.2%	5	3
2179	Hertz Global Hldgs.	HTZ	7.41	-54.7%	-	4
1332	GoPro, Inc.	GPRO	11.39	-54.5%	-	3
1123	Beazer Homes USA	BZH	6.50	-54.4%	4	5
835	Intercept Pharm.	ICPT	93.89	-54.4%	4	4
1232	SunEdison Inc.	SUNE	2.63	-54.4%	4	5
2437	Tidewater Inc.	TDW	5.19	-54.0%	5	4
2420	Enscop plc	ESV	8.47	-53.7%	5	3
526	Devon Energy	DVN	22.66	-52.6%	5	3
1224	FuelCell Energy	FCEL	4.81	-52.3%	4	5
2337	Lions Gate Entertain.	LGF	19.13	-52.0%	3	3
2199	Weight Watchers	WTW	10.81	-52.0%	3	5
987	Federal-Mogul Hldgs.	FDML	4.05	-51.3%	4	4
306	Bristow Group	BRS	14.75	-51.1%	5	3
615	Energy Transfer	ETP	20.34	-51.0%	5	3
529	Encana Corp.	ECA	3.83	-50.6%	5	4
616	EnLink Midstream Part.	ENLK	8.64	-50.3%	4	3
331	Frontline Ltd.	FRO	8.15	-50.3%	3	5
2191	Party City Holdco	PRTY	7.70	-50.0%	-	4

**WIDEST DISCOUNTS FROM BOOK VALUE**  
Stocks whose ratios of recent price to book value are lowest

Page No.	Stock Name	Ticker	Recent Price	Book Value Per sh.*	Percent Price-to-Book Value	Time-liness	Safety Rank	Beta	P/E Ratio	% Est'd Yield	Industry Group	Industry Rank
1553	Genworth Fin'l	GNW	1.67	30.20	6%	4	5	1.75	2.9	NIL	Insurance (Life)	79
2434	Seadrill Ltd.	SDRL	1.73	18.85	9%	5	5	1.60	1.5	NIL	Oilfield Svcs/Equip.	94
334	Guifmark Offshore	GLF	3.44	35.45	10%	5	4	1.75	NMF	NIL	Maritime	88
337	Teekay Corp.	TK	5.58	49.75	11%	4	4	1.55	6.8	3.9	Maritime	88
2437	Tidewater Inc.	TDW	5.19	46.80	11%	5	4	1.35	NMF	19.3	Oilfield Svcs/Equip.	94
741	ArcelorMittal	MT	3.23	26.80	12%	4	3	1.60	NMF	NIL	Steel	93
330	Diana Shipping	DSX	2.20	14.15	16%	5	3	1.40	NMF	NIL	Maritime	88
1592	Teck Resources Ltd. 'B'	TCKB.TO	5.52	28.65	19%	5	4	1.55	27.6	1.8	Metals & Mining (Div.)	97
2548	EZCORP. Inc.	EZPW	2.65	12.55	21%	—	3	1.25	NMF	NIL	Financial Svcs. (Div.)	57
2423	Helix Energy Solutions	HLX	3.29	15.65	21%	5	3	1.90	NMF	NIL	Oilfield Svcs/Equip.	94
2420	Enesco plc	ESV	8.47	38.20	22%	5	3	1.40	3.5	7.1	Oilfield Svcs/Equip.	94
2428	Noble Corp. plc	NE	7.25	31.55	23%	4	3	1.50	5.2	8.3	Oilfield Svcs/Equip.	94
2438	Transocean Ltd.	RIG	8.91	38.85	23%	5	4	1.45	7.7	NIL	Oilfield Svcs/Equip.	94
1760	LSB Inds.	LXU	5.17	21.75	24%	5	4	1.55	19.9	NIL	Diversified Co.	58
540	WPX Energy	WPX	4.64	18.20	25%	5	4	1.90	NMF	NIL	Natural Gas (Div.)	95
2411	Whiting Petroleum	WLL	5.66	22.75	25%	5	3	2.00	NMF	NIL	Petroleum (Producing)	96
2405	Marathon Oil Corp.	MRO	7.29	26.90	27%	5	3	1.65	NMF	2.7	Petroleum (Producing)	96
513	Petroleo Brasileiro ADR	PBR	2.99	10.75	28%	5	4	1.65	NMF	NIL	Petroleum (Integrated)	87
1551	AEGON	AEG	4.83	16.55	29%	4	3	1.45	5.6	5.6	Insurance (Life)	79
332	GasLog Ltd.	GLOG	6.43	22.50	29%	5	4	1.60	20.1	8.7	Maritime	88
2407	Oasis Petroleum	OAS	4.95	17.05	29%	5	5	2.00	NMF	NIL	Petroleum (Producing)	96
306	Bristow Group	BRS	14.75	47.05	31%	5	3	1.20	6.6	1.9	Air Transport	33
1227	NRG Energy	NRG	10.84	35.20	31%	5	3	1.10	36.1	5.4	Power	85
1593	Vale S.A. ADR	VALE	2.47	7.95	31%	5	4	1.45	9.9	NIL	Metals & Mining (Div.)	97
2432	Rowan Cos. plc	RDC	11.93	37.60	32%	4	3	1.35	5.3	NIL	Oilfield Svcs/Equip.	94
1123	Beazer Homes USA	BZH	6.50	19.30	34%	4	5	2.15	5.0	NIL	Homebuilding	47
1638	CDI Corp.	CDI	4.54	13.35	34%	5	3	1.10	NMF	11.5	Human Resources	17
2108	Iconix Brand Group	ICON	6.76	20.00	34%	5	4	1.30	4.7	NIL	Apparel	60
752	U.S. Steel Corp.	X	7.34	21.60	34%	5	4	1.70	NMF	2.7	Steel	93
1579	Yamana Gold	AUY	2.36	6.95	34%	5	5	1.05	NMF	2.5	Precious Metals	90
2414	C&J Energy Svcs.	CJES	2.26	6.40	35%	—	5	2.15	NMF	NIL	Oilfield Svcs/Equip.	94
1586	CONSOL Energy	CNX	7.53	21.45	35%	—	3	1.45	NMF	0.5	Metals & Mining (Div.)	97
624	Williams Partners L.P.	WPZ	13.26	38.10	35%	—	3	1.15	17.7	25.9	Pipeline MLPs	91
943	Black Box	BBOX	8.18	22.45	36%	5	3	1.20	7.9	5.4	Telecom. Equipment	81
1568	Eldorado Gold	EGO	2.62	7.35	36%	5	4	1.15	23.8	0.8	Precious Metals	90
1587	Freep'l-McMoran Inc.	FCX	5.00	13.80	36%	—	5	1.70	41.7	NIL	Metals & Mining (Div.)	97
988	Fuel Sys. Solns.	FSYS	3.70	10.30	36%	—	4	1.65	NMF	NIL	Auto Parts	59
979	China Auto. Sys.	CAAS	3.62	9.70	37%	5	4	1.35	3.9	NIL	Auto Parts	59
165	Joy Global	JOY	10.75	27.85	39%	5	3	1.50	35.8	0.4	Heavy Truck & Equip	83
2426	Nabors Inds.	NBR	6.10	15.50	39%	5	4	1.80	NMF	3.9	Oilfield Svcs/Equip.	94
2148	Rent-A-Center	RCII	11.13	27.00	41%	4	3	1.05	5.4	2.9	Retail Store	71
1003	Titan Int'l	TWI	3.05	7.40	41%	5	3	1.70	NMF	0.7	Auto Parts	59
731	Dynamic Materials	BOOM	6.16	14.65	42%	4	4	1.25	14.7	1.3	Metal Fabricating	89
2221	Stage Stores	SSI	7.05	16.35	43%	5	4	1.40	10.2	8.5	Retail (Softlines)	75
1582	Allegheny Techn.	ATI	9.96	22.70	44%	5	4	1.80	NMF	3.2	Metals & Mining (Div.)	97
122	Geospace Technologies	GEOS	9.68	22.03	44%	4	4	1.65	NMF	NIL	Precision Instrument	55
1761	McDermott Int'l	MDR	2.53	5.65	45%	4	5	1.85	NMF	NIL	Diversified Co.	58
537	QEP Resources	QEP	10.93	24.15	45%	5	3	1.55	NMF	0.7	Natural Gas (Div.)	95
602	Clean Energy Fuels	CLNE	2.25	4.85	46%	4	5	1.75	NMF	NIL	Oil/Gas Distribution	74
511	Murphy Oil Corp.	MUR	17.86	38.40	47%	5	3	1.45	NMF	7.8	Petroleum (Integrated)	87
312	SkyWest	SKYW	14.61	31.00	47%	3	3	1.20	7.5	1.1	Air Transport	93
529	Encana Corp.	ECA	3.83	8.00	48%	5	4	1.40	NMF	1.6	Natural Gas (Div.)	95
2542	CIT Group	CIT	26.74	54.61	49%	5	3	1.15	7.8	2.5	Financial Svcs. (Div.)	57
523	Chesapeake Energy	CHK	1.95	3.90	50%	5	4	1.60	1.0	NIL	Natural Gas (Div.)	95
801	Community Health	CYH	18.43	36.80	50%	4	3	1.40	4.9	NIL	Medical Services	31
2520	Popular Inc.	BPOP	24.34	48.78	50%	3	4	1.35	6.8	2.5	Bank	54
2386	News Corp. 'A'	NWSA	10.49	20.54	51%	4	3	1.25	19.8	1.9	Newspaper	84
931	Sprint Corp.	S	2.65	5.20	51%	4	4	1.30	NMF	NIL	Telecom. Services	25
730	Chart Industries	GTLS	16.01	31.00	52%	5	3	1.70	13.1	NIL	Metal Fabricating	89
506	Hess Corp.	HES	38.70	74.65	52%	5	3	1.50	NMF	2.6	Petroleum (Integrated)	87
2436	TETRA Technologies	TTI	5.00	9.55	52%	3	4	1.75	20.0	NIL	Oilfield Svcs/Equip.	94
728	Triumph Group	TGI	25.09	48.10	52%	4	3	1.05	5.0	0.6	Aerospace/Defense	29
2021	Assured Guaranty	AGO	22.43	42.00	53%	3	4	1.55	9.0	2.3	Reinsurance	32
1127	KB Home	KBH	9.76	18.55	53%	3	4	1.65	8.7	1.0	Homebuilding	47
2504	Bank of America	BAC	12.20	22.54	54%	3	3	1.45	9.0	2.0	Bank	54
2510	Citigroup Inc.	C	37.51	69.46	54%	3	3	1.50	7.2	0.5	Bank	54
2418	Diamond Offshore	DO	17.37	32.20	54%	4	3	1.10	NMF	NIL	Oilfield Svcs/Equip.	94
1343	Skullcandy, Inc.	SKUL	3.19	5.90	54%	4	4	1.25	10.6	NIL	Electronics	63
2348	Tribune Media Co.	TRCO	27.36	51.00	54%	5	3	1.15	14.4	3.7	Entertainment	53
2416	CARBO Ceramics	CRR	15.26	27.65	55%	4	4	1.45	NMF	3.7	Oilfield Svcs/Equip.	94
1554	Lincoln Nat'l Corp.	LNC	33.80	61.25	55%	4	3	1.50	5.2	3.1	Insurance (Life)	79
305	Atlas Air Worldwide	AAWW	35.27	63.25	56%	3	3	1.40	7.7	NIL	Air Transport	33
1556	MellLife Inc.	MET	37.16	65.85	56%	4	3	1.35	6.3	4.4	Insurance (Life)	79
2427	National Oilwell Varco	NOV	27.56	48.95	56%	5	3	1.25	20.4	6.7	Oilfield Svcs/Equip.	94
614	DCP Midstream Partners	DPM	16.81	29.40	57%	4	3	1.15	8.2	18.6	Pipeline MLPs	91
933	Telephone & Data	TDS	22.73	40.00	57%	3	3	1.25	NMF	2.6	Telecom. Services	25
1108	CEMEX ADS	CX	4.43	7.60	58%	4	4	1.65	NMF	NIL	Building Materials	27
530	Energren Corp.	EGN	26.77	46.00	58%	5	3	1.50	72.4	0.3	Natural Gas (Div.)	95
2646	Amer. Capital, Ltd.	ACAS	12.75	21.75	59%	—	5	1.20	10.6	NIL	Public/Private Equity	86
615	Energy Transfer	ETP	20.34	34.70	59%	5	3	0.95	11.6	20.7	Pipeline MLPs	91
1571	Kinross Gold	KGC	2.43	4.15	59%	4	4	1.05	NMF	NIL	Precious Metals	90
1804	Morgan Stanley	MS	22.93	39.05	59%	3	3	1.60	6.8	2.6	Investment Banking	72
623	Sunoco Logistics Part.	SXL	17.19	29.35	59%	4	3	1.15	12.4	10.6	Pipeline MLPs	91
2435	Superior Energy Svcs.	SPN	9.14	15.55	59%	5	3	1.70	NMF	3.5	Oilfield Svcs/Equip.	94
531	Enerplus Corp.	ERF.TO	3.96	6.65	60%	4	4	1.60	NMF	9.1	Natural Gas (Div.)	95
616	EnLink Midstream Part.	ENLK	8.64	14.30	60%	4	3	1.25	15.2	18.1	Pipeline MLPs	91
2561	Legg Mason	LM	25.93	42.40	61%	3	3	1.30	29.5	3.1	Financial Svcs. (Div.)	57
2521	Regions Financial	RF	7.65	12.35	62%	3	3	1.40	9.7	3.5	Bank	54
1344	Stratays Ltd.	SSYS	15.94	25.70	62%	4	3	1.45	NMF	NIL	Electronics	63
1234	TransAlta Corp.	TA.TO	5.18	8.30	62%	5	4	0.80	21.6	3.1	Power	85
2642	Yahoo! Inc.	YHOO	26.82	43.25	62%	3	3	1.05	32.7	NIL	Internet	30
2535	Amer. Int'l Group	AIG	52.25	83.40	63%	3	3	1.15	9.7	2.1	Financial Svcs. (Div.)	57
2651	Gladstone Capital	GLAD	5.71	9.06	63%	4	3	1.00	5.9	14.7	Public/Private Equity	86
373	Ruby Tuesday	RT	4.70	7.50	63%	4	4	1.00	58.8	NIL	Restaurant	11
2025	Greenlight Capital Re	GLRE	19.25	30.25	64%	4	3	0.90	8.2	NIL	Reinsurance	32
2219	Talored Brands	TLRD	12.65	19.70	64%	4	3	1.15	5.2	5.7	Retail (Softlines)	75
2529	Zions Bancorp.	ZION	20.77	32.67	64%	3	3	1.30	12.4	1.3	Bank	54
762	CNA Fin'l	CNA	30.10	46.05	65%	3	3	1.00	13.4	3.3	Insurance (Prop/Cas.)	6
1221	EnerNOC, Inc.	ENOC	4.43	6.85	65%	4	5	1.60	NMF	NIL	Power	85
333	Golar LNG Ltd.	GLNG	14.50	22.15	65%	4	4	1.60	NMF	1.4	Maritime	88

\*If fiscal 2016 Book Value not available, estimate used.

February 19, 2016

## SUMMARY AND INDEX • THE VALUE LINE INVESTMENT SURVEY

## LOWEST P/E's

## Stocks with the lowest estimated current P/E ratios

Page No.	Stock Name	Recent Price	Current P/E Ratio	Time-liness	Safety Rank	Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Current P/E Ratio	Time-liness	Safety Rank	Industry Group	Industry Rank
523	Chesapeake Energy	1.95	1.0	5	4	Natural Gas (Div.)	95	2026	Maiden Hldgs. Ltd.	12.74	6.4	3	3	Reinsurance	32
2434	Seadrill Ltd.	1.73	1.5	5	5	Oilfield Svcs/Equip.	94	510	Marathon Petroleum	31.40	6.4	3	3	Petroleum (Integrated)	87
1589	Natural Resource	9.20	1.8	5	5	Metals & Mining (Div.)	97	308	Della Air Lines	41.99	6.5	2	3	Air Transport	33
1628	PDL BioPharma	2.91	2.4	5	5	Drug	37	1126	Hymanian Enterpr. 'A'	1.30	6.5	—	5	Homebuilding	47
406	Outerwall Inc.	27.01	2.8	5	5	Industrial Services	38	306	Bristow Group	14.75	6.6	5	3	Air Transport	33
1553	Genworth Fin'l	1.67	2.9	4	4	Insurance (Life)	79	1906	Cal-Maine Foods	48.56	6.6	2	3	Food Processing	10
2387	Tribune Publishing Co.	6.18	2.9	—	3	Newspaper	84	1238	Chicago Bridge & Iron	34.52	6.6	4	3	Engineering & Const	10
2650	Fortress Investment	4.18	3.3	3	4	Public/Private Equity	86	1558	Prudential Fin'l	63.59	6.6	4	3	Insurance (Life)	79
2420	Enco plc	8.47	3.5	5	3	Oilfield Svcs/Equip.	94	958	NeuStar Inc.	20.82	6.7	4	3	Telecom. Equipment	81
979	China Auto. Sys.	3.62	3.9	5	4	Auto Parts	59	1597	CF Industries	28.47	6.8	4	3	Chemical (Basic)	92
345	Greenbrier (The) Cos.	26.02	3.9	3	4	Railroad	70	2545	Crawford & Co. 'B'	4.07	6.8	5	4	Financial Svcs. (Div.)	57
998	Meritor, Inc.	6.53	4.0	4	4	Auto Parts	59	1804	Morgan Stanley	22.93	6.8	3	3	Investment Banking	72
1583	Alliance Resource	12.02	4.1	5	3	Metals & Mining (Div.)	97	2520	Popular Inc.	24.34	6.8	3	4	Bank	54
976	Amer. Axle	11.95	4.1	3	4	Auto Parts	59	337	Teekay Corp.	5.58	6.8	4	4	Maritime	88
987	Federal-Mogul Hldgs.	4.05	4.1	4	4	Auto Parts	59	1999	DeVry Education Group	17.14	6.9	5	3	Educational Services	77
104	Fiat Chrysler	5.88	4.1	—	3	Automotive	67	171	Wabash National	10.97	6.9	3	4	Heavy Truck & Equip	83
331	Frontline Ltd.	8.15	4.3	3	5	Maritime	88	2125	Group 1 Automotive	53.27	7.0	3	3	Retail Automotive	18
2652	KKR & Co. L.P.	12.62	4.6	4	3	Public/Private Equity	86	1421	Lexmark Int'l 'A'	25.32	7.0	4	3	Office Equip/Supplies	82
2566	Naviem Corp.	8.50	4.6	—	3	Financial Svcs. (Div.)	57	1603	Mosaic Company	23.86	7.0	5	3	Chemical (Basic)	92
2108	Iconix Brand Group	6.76	4.7	5	4	Apparel	60	1562	Unum Group	26.17	7.0	3	3	Insurance (Life)	79
2448	Huntsman Corp.	8.37	4.8	4	4	Chemical (Diversified)	50	2170	Conn's, Inc.	13.12	7.1	4	5	Retail (Hardlines)	66
315	United Cont'l Hldgs.	46.48	4.8	3	4	Air Transport	33	781	Fifth Third Bancorp	14.83	7.1	3	3	Bank (Midwest)	49
801	Community Health	18.43	4.9	4	3	Medical Services	31	2176	GameStop Corp.	27.12	7.1	4	3	Retail (Hardlines)	66
1123	Beazer Homes USA	6.50	5.0	4	5	Homebuilding	47	815	Select Med. Hldgs.	7.82	7.1	4	3	Medical Services	31
728	Triumph Group	25.09	5.0	4	3	Aerospace/Defense	29	2647	Apollo Global Mgmt	13.17	7.2	4	3	Public/Private Equity	86
317	WestJet Airlines Ltd.	15.49	5.0	4	3	Air Transport	33	2510	Citigroup Inc.	37.51	7.2	3	3	Bank	54
106	General Motors	27.87	5.1	3	3	Automotive	67	996	Linamar Corp.	51.14	7.2	3	3	Auto Parts	59
2563	MGIC Investment	6.33	5.1	3	5	Financial Svcs. (Div.)	57	1338	NCR Corp.	19.57	7.2	4	3	Electronics	63
304	American Airlines	35.19	5.2	—	3	Air Transport	33	1134	TRI Pointe Group	9.29	7.2	3	3	Homebuilding	47
1594	Lincoln Nat'l Corp.	33.80	5.2	4	3	Insurance (Life)	79	1634	Valent Pharm. Int'l	86.95	7.2	3	4	Drug	35
2428	Noble Corp. plc	7.25	5.2	4	3	Oilfield Svcs/Equip.	94	2163	Avis Budget Group	24.89	7.3	3	4	Retail (Hardlines)	66
2219	Talored Brands	12.65	5.2	4	3	Retail (Softlines)	75	2174	Fossil Group	33.67	7.3	5	3	Retail (Hardlines)	66
2432	Rowan Cos. plc	11.93	5.3	4	3	Oilfield Svcs/Equip.	94	2129	Penske Auto	30.27	7.3	3	3	Retail Automotive	18
1732	United Rentals	44.78	5.3	3	4	Machinery	37	1236	AECom Techn.	23.78	7.4	4	3	Engineering & Const	80
2148	Rent-A-Center	11.13	5.4	4	3	Retail Store	71	507	HollyFrontier Corp.	31.08	7.4	3	3	Petroleum (Integrated)	87
348	Trinity Inds.	21.58	5.4	3	3	Railroad	70	102	Daimler AG	66.03	7.5	3	3	Automotive	67
1531	AECOM	4.93	5.5	4	3	Insurance (Life)	79	1617	Gilead Sciences	87.22	7.5	3	3	Drug	35
105	Ford Motor	11.35	5.6	3	3	Automotive	67	108	Nissan Motor ADR	17.43	7.5	3	3	Automotive	67
1764	Park-Ohio	25.15	5.6	4	4	Diversified Co.	58	312	SkyWest	14.61	7.5	3	3	Air Transport	33
1937	Synutra Int'l	5.18	5.7	—	5	Food Processing	10	109	Tata Motors ADR	22.96	7.5	4	3	Automotive	67
2350	Viacom Inc. 'B'	32.86	5.7	4	3	Entertainment	53	2560	Lazard Ltd.	30.48	7.6	4	3	Financial Svcs. (Div.)	57
1181	Owens-Illinois	13.54	5.8	5	3	Packaging & Container	51	2191	Party City Holdco	7.70	7.6	—	4	Retail (Hardlines)	66
2651	Gladstone Capital	5.71	5.9	4	3	Public/Private Equity	86	2131	Sonic Automotive	16.25	7.6	3	3	Retail Automotive	18
1796	Investment Techn.	17.04	5.9	4	3	Brokers & Exchanges	23	2532	Aircastle Ltd.	15.55	7.7	4	3	Financial Svcs. (Div.)	57
1598	CVR Partners, LP	5.30	6.0	5	3	Chemical (Basic)	92	305	Atlas Air Worldwide	35.27	7.7	3	3	Air Transport	33
982	Dana Holding Corp.	11.73	6.3	5	3	Auto Parts	59	992	Goodyear Tire	27.45	7.7	2	4	Auto Parts	59
1556	MetLife Inc.	37.16	6.3	4	3	Insurance (Life)	79	2570	SLM Corporation	5.40	7.7	—	4	Financial Svcs. (Div.)	57
1414	Western Digital	40.18	6.3	4	3	Computers/Peripherals	64	2438	Transocean Ltd.	8.91	7.7	5	4	Oilfield Svcs/Equip.	94
2649	Blackstone Group LP	24.46	6.4	3	3	Public/Private Equity	86	581	Westlake Chemical	43.50	7.7	4	3	Chemical (Specialty)	56
997	Magna Int'l 'A'	31.37	6.4	4	3	Auto Parts	59	2542	CIT Group	26.74	7.8	5	3	Financial Svcs. (Div.)	57

## HIGHEST P/E's

## Stocks with the highest estimated current P/E ratios

Stocks with the highest estimated current P/E ratios															
Page No.	Stock Name	Recent Price	Current P/E Ratio	Time-liness	Safety Rank	Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Current P/E Ratio	Time-liness	Safety Rank	Industry Group	Industry Rank
2584	Fortinet Inc.	23.84	99.3	2	3	Computer Software	26	841	Regeneron Pharmac.	365.97	48.9	2	4	Biotechnology	42
2621	Amazon.com	482.07	98.4	1	3	Internet	30	1034	Frontier Communic.	4.32	48.0	4	3	Telecom. Utility	76
1543	UDR, Inc.	33.42	98.3	2	3	R.E.I.T.	28	2353	Belmond Ltd.	8.55	47.5	5	4	Hotel/Gaming	48
1814	Endurance Int'l Group	7.69	96.1	3	3	E-Commerce	22	402	Masquarie Infrastructure	54.10	47.2	3	3	Industrial Services	38
1947	COG Resources	65.59	95.1	3	3	Natural Gas (Div.)	95	935	U.S. Cellular	36.19	47.0	3	3	Telecom. Services	25
180	CryoLife Inc.	9.30	84.5	2	3	Med Supp Invasive	3	201	Affymetrix Inc.	14.04	46.8	—	4	Med Supp Non-Invasive	4
587	DSP Group	8.23	82.3	3	3	Wireless Networking	43	593	Ruckus Wireless	7.48	46.8	3	4	Wireless Networking	43
2624	Ctrip.com Int'l ADR	36.57	76.2	1	3	Internet	30	445	CoStar Group	154.01	46.7	3	3	Information Services	9
1521	Duke Realty Corp.	18.96	75.8	3	3	R.E.I.T.	28	1220	Covanta Holding Corp.	13.02	46.5	4	3	Power	85
173	ABIOMED Inc.	71.00	72.4	2	3	Med Supp Invasive	3	190	NuVasive, Inc.	41.74	46.4	2	3	Med Supp Invasive	3
530	Energen Corp.	26.77	72.4	5	3	Natural Gas (Div.)	95	2305	Carmike Cinemas	19.89	46.3	3	4	Recreation	21
174	AngioDynamics	10.02	71.6	4	3	Med Supp Invasive	3	1539	Realty Income Corp.	56.36	46.2	2	2	R.E.I.T.	28
1019	Charter Communications	165.04	70.5	3	3	Cable TV	69	2142	Fred's Inc.	12.80	45.7	3	3	Retail Store	71
374	Shake Shack	34.40	68.8	—	3	Restaurant	11	1523	Essex Property Trust	193.49	43.9	1	3	R.E.I.T.	28
117	Checkpoint Systems	6.10	67.8	5	3	Precision Instrument	55	2577	Adobe Systems	73.85	42.9	1	3	Computer Software	26
725	TASER Int'l	15.37	66.8	3	4	Aerospace/Defense	29	1355	Atmel Corp.	8.03	42.3	—	4	Semiconductor	45
2422	Halliburton Co.	29.59	65.8	4	4	Oilfield Svcs/Equip.	94	1516	Boston Properties	108.97	42.2	3	3	R.E.I.T.	28
2404	Diamondback Energy	67.06	65.1	3	3	Petroleum (Producing)	96	2338	Live Nation Entertain.	19.36	42.1	3	3	Entertainment	53
397	Howard Hughes Corp.	83.97	65.1	3	3	Industrial Services	38	1587	Freep't-McMoRan Inc.	5.00	41.7	5	4	Metals & Mining (Div.)	97
1534	Macerich Comp. (The)	74.92	65.1	2	3	R.E.I.T.	28	1191	Colgate-Palmolive	65.88	41.2	3	1	Household Products	5
597	ViaSat, Inc.	56.90	63.2	3	3	Wireless Networking	43	604	Kinder Morgan Inc.	14.61	40.6	—	3	Oil/Gas Distribution	74
441	Advisory Board	40.35	63.0	3	3	Information Services	9	218	Ilumina Inc.	139.49	40.4	3	3	Med Supp Non-Invasive	4
1024	Liberty Global plc	31.19	62.4	3	3	Cable TV	69	2336	Liberty Media Corp.	32.15	40.2	—	3	Entertainment	53
2425	MRC Global	9.35	62.3	4	4	Oilfield Svcs/Equip.	94	508	Husky Energy	12.72	39.8	4	3	Petroleum (Integrated)	87
2628	Facebook Inc.	99.54	61.8	1	3	Internet	30	1615	Celgene Corp.	100.50	39.7	2	3	Drug	35
1570	Goldcorp Inc.	14.16	59.0	4	3	Precious Metals	90	1357	CEVA, Inc.	18.04	39.2	2	4	Semiconductor	45
373	Ruby Tuesday	4.70	58.8	4	4	Restaurant	11	1517	Camden Property Trust	72.55	38.9	3	3	R.E.I.T.	28
2115	Under Armour	72.35	58.8	2	3	Apparel	60	972	Rite Aid Corp.	7.76	38.8	—	5	Pharmacy Services	15
1168	Pollatch Corp.	27.02	58.7	4	3	Paper/Forest Products	61	206	Cantel Medical Corp.	58.00	38.4	1	3	Med Supp Non-Invasive	4
357	Chipotle Mex. Grill	440.93	58.6	3	3	Restaurant	11	525	Concho Resources	85.58	38.4	4	3	Natural Gas (Div.)	95
1514	Apartment Investment	35.45	58.1	3	3	R.E.I.T.	28	1546	W.P. Carey Inc.	55.90	38.3	3	3	R.E.I.T.	28
2417	Core Laboratories	96.17	57.9	3	3	Oilfield Svcs/Equip.	94	1382	STMicroelectronics	5.35	38.2	5	3	Semiconductor	45
2333	DreamWorks Animation	21.94	57.7	3	3	Entertainment	53	845	Verex Pharm.	80.14	38.2	3	3	Biotechnology	42
1815	Equinix, Inc.	255.05	57.4	2	3	E-Commerce	22	1567	Barrick Gold	11.22	37.4	4	3	Precious Metals	90
1520	Digital Realty Trust	77.15	56.7	3	3	R.E.I.T.	28	595	Sierra Wireless	10.41	37.2	3	4	Wireless Networking	43
1169	Rayonier Inc.	19.25	56.6	—	3	Paper/Forest Products	61	583	Amer. Tower 'A'	85.57	36.9	1	2	Wireless Networking	43
1379	Semtech Corp.	16.22	55.9	3	3	Semiconductor	45	1577	Stillwater Mining	6.63	36.8	5	3	Precious Metals	90
1230	Pattern Energy Group	16.11	55.6	4	3	Power	85	1315	Universal Display	42.93	36.4	2	3	Electrical Equipment	68
2592	Red Hat, Inc.	61.60	55.5	1	3	Computer Software	26	1314	Trimble Nav. Ltd.	18.82	36.2	3	3	Electrical Equipment	68
586	Crown Castle Int'l	82.20	55.2	1	3	Wireless Networking	43	1227	NRG Energy	10.84	36.1	5	3	Power	85
709	DigitalGlobe, Inc.	13.68	54.7	4	3	Aerospace/Defense	29	165	Joy Global	16.75	35.8	5	3	Heavy Truck & Equip	83
1608	Albany Molecular	15.05	53.8	3	4	Drug	35	2351	World Wrestling Ent.	16.47	35.8	2	4	Entertainment	53
521	Antero Resources Corp.	26.23	53.5	4	3	Natural Gas (Div.)	95	1538	Public Storage	232.92	35.7	1	1	R.E.I.T.	28
1165	Louisiana-Pacific	13.87	51.4	3	4	Paper/Forest Products	61	1018	Cablevision Sys. 'A'	31.62	35.5	—	4	Cable TV	69
1529	Healthcare Rfity Trust	27.93	50.6	3	3	R.E.I.T.	28	2619	Alibaba Group Hldg Ltd.	61.39	35.3	—	4	Internet	30
2590	FTC Inc.	27.78	50.5	3	3	Computer Software	26	1971	Craft Brew Alliance	7.77	35.3	3	4	Beverage	8
2005	ITC, Inc.	21.50	49.0	4	4	Semiconductor Tech	45	1537	Prologis	35.40	35.2	2	3	R.E.I.T.	28
1360	Cree, Inc.	29.36	48.8	3	3	Semiconductor	45	116	Brucker Corp.	21.33	35.0	2	3	Precision Instrument	55
1978	Primo Water Corp.	8.82	49.0	—	4	Beverage	8	1525	FeiCor Lodging Tr.	6.61	34.8	3	4	R.E.I.T.	28
1354	Federal Rty. Inv. Trust	146.77	48.9	1	2	R.E.I.T.	28	1031	Cincinnati Bell	3.12	34.7	3	4	Telecom. Utility	76



**STOCKS WITH HIGHEST ANNUAL TOTAL RETURNS (NEXT 3 TO 5 YEARS)**  
(Estimated compound annual stock price appreciation plus estimated annual dividend income.)

Page No.	Stock Name	Recent Price	Est'd Total Return	Time-liness	Safety Rank	Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Est'd Total Return	Time-liness	Safety Rank	Industry Group	Industry Rank
1589	Natural Resource	9.20	97%	—	5	Metals & Mining (Div.)	97	2219	Tailored Brands	12.65	42%	4	3	Retail (Softlines)	75
2434	Seadrill Ltd.	1.73	90%	5	5	Oilfield Svcs/Equip.	94	943	Black Box	8.18	41%	5	3	Telecom. Equipment	81
531	Enerplus Corp.	3.96	73%	4	4	Natural Gas (Div.)	95	2583	FireEye Inc.	12.02	41%	4	4	Computer Software	26
513	Petroleo Brasileiro ADR	2.99	71%	5	4	Petroleum (Integrated)	87	988	Fuel Sys. Solns.	3.70	41%	—	4	Auto Parts	59
337	Teekay Corp.	5.58	69%	4	4	Maritime	88	951	Harmonic, Inc.	3.12	41%	5	3	Telecom. Equipment	81
523	Chesapeake Energy	1.95	67%	5	4	Natural Gas (Div.)	95	1628	PDL BioPharma	2.91	41%	5	5	Drug	35
1126	Hovnanian Enterpr. 'A'	1.30	67%	—	5	Homebuilding	47	1574	Pretium Resources	4.86	41%	3	5	Precious Metals	90
2423	Helix Energy Solutions	3.29	63%	3	3	Oilfield Svcs/Equip.	94	1343	Skullcandy, Inc.	3.19	41%	4	4	Electronics	63
2437	Tidewater Inc.	5.19	63%	4	4	Oilfield Svcs/Equip.	94	1232	SunEdison Inc.	2.63	41%	4	5	Power	85
2414	C&J Energy Svcs.	2.25	62%	5	5	Oilfield Svcs/Equip.	94	1123	Beazer Homes USA	6.50	40%	4	5	Homebuilding	47
843	Senomyx, Inc.	2.99	61%	—	5	Biotechnology	42	1243	MasTec	13.10	40%	4	3	Engineering & Const	80
743	Cliffs Natural Res.	1.78	59%	—	5	Steel	93	2566	Navient Corp.	8.50	40%	—	3	Financial Svcs. (Div.)	57
1587	Freep-McMoran Inc.	5.00	59%	5	4	Metals & Mining (Div.)	97	2014	Synchronoss Techn.	22.63	40%	3	3	Entertainment Tech	46
1553	Genworth Fin'l	1.67	58%	4	4	Insurance (Life)	79	2350	Viacom Inc. 'B'	32.86	40%	4	3	Entertainment	53
2411	Whiting Petroleum	5.66	58%	5	3	Petroleum (Producing)	96	2439	Weatherford Int'l plc	6.34	40%	4	4	Oilfield Svcs/Equip.	94
2171	Container Store Group	4.00	57%	—	4	Retail (Hardlines)	66	2205	Ascenta Retail Group	6.62	39%	4	3	Retail (Softlines)	75
987	Federal-Mogul Hldgs.	4.05	56%	4	4	Auto Parts	59	614	DCP Midstream Partners	16.81	39%	4	3	Pipeline MLPs	91
332	GasLog Ltd.	6.43	56%	5	4	Maritime	88	568	Kronos Worldwide	4.62	39%	4	3	Chemical (Specialty)	56
2387	Tribune Publishing Co.	6.18	56%	—	3	Newspaper	84	570	Methanex Corp.	25.95	39%	4	3	Chemical (Specialty)	56
624	Williams Partners L.P.	13.26	56%	—	3	Pipeline MLPs	91	511	Murphy Oil Corp.	17.86	39%	5	3	Petroleum (Integrated)	87
1332	GoPro, Inc.	11.39	53%	—	3	Electronics	63	2221	Stage Stores	7.05	39%	5	4	Retail (Softlines)	75
2410	Ultra Petroleum	1.44	51%	5	5	Petroleum (Producing)	96	846	XenoPort, Inc.	4.18	39%	4	5	Biotechnology	42
2403	Denbury Resources	1.17	50%	5	5	Petroleum (Producing)	96	1638	CDI Corp.	4.54	38%	5	3	Human Resources	17
406	Outerwall Inc.	27.01	50%	5	3	Industrial Services	38	1598	CVR Partners, LP	5.30	38%	5	3	Chemical (Basic)	92
621	Plains All Amer. Pipe.	15.88	50%	4	3	Pipeline MLPs	91	801	Community Health	18.43	38%	4	3	Medical Services	31
1593	Vale S.A. ADR	2.47	50%	5	4	Metals & Mining (Div.)	97	330	Diana Shipping	2.20	38%	5	3	Maritime	88
615	Energy Transfer	20.34	48%	5	3	Pipeline MLPs	91	605	ONEOK Inc.	20.63	38%	3	3	Oil/Gas Distribution	74
1592	Tec Resources Ltd. 'B'	5.52	48%	5	5	Metals & Mining (Div.)	97	816	Tenet Healthcare	24.21	38%	4	4	Medical Services	31
2650	Fortress Investment	4.18	47%	3	4	Public/Private Equity	86	1361	Cypress Semic.	6.61	37%	4	3	Semiconductor	45
2432	Rowan Cos. plc	11.93	47%	4	3	Oilfield Svcs/Equip.	94	2006	Daktronics Inc.	7.49	37%	4	3	Entertainment Tech	46
740	AK Steel Holding	2.21	46%	4	5	Steel	93	1568	Eldorado Gold	2.62	37%	5	4	Precious Metals	90
1583	Alliance Resource	12.02	46%	5	3	Metals & Mining (Div.)	97	803	Envision Healthcare	18.95	37%	3	3	Medical Services	31
2405	Marathon Oil Corp.	7.23	46%	5	3	Petroleum (Producing)	96	331	Frontline Ltd.	8.15	37%	3	3	Maritime	88
979	China Auto. Sys.	6.22	45%	5	4	Auto Parts	59	2651	Gladstone Capital	5.71	37%	4	3	Public/Private Equity	86
602	Clean Energy Fuels	2.25	45%	4	5	Oil/Gas Distribution	74	604	Kinder Morgan Inc.	14.61	37%	—	3	Oil/Gas Distribution	74
1330	Fibit Inc.	14.30	45%	—	3	Electronics	63	2561	Legg Mason	25.93	37%	3	3	Financial Svcs. (Div.)	57
334	GulfMark Offshore	3.44	45%	5	4	Maritime	88	736	NN Inc.	11.06	37%	4	4	Metal Fabricating	89
2448	Huntsman Corp.	8.37	45%	4	4	Chemical (Diversified)	50	1604	Olin Corp.	12.90	37%	—	3	Chemical (Basic)	92
1818	Rackspace Hosting	16.82	45%	3	3	E-Commerce	22	623	Sunoco Logistics Part.	17.19	37%	4	3	Pipeline MLPs	91
2344	Sirius XM Holdings	3.35	45%	3	4	Entertainment	53	741	ArcelorMittal	3.23	36%	4	3	Steel	93
2545	Crawford & Co. 'B'	4.07	44%	5	4	Financial Svcs. (Div.)	57	730	Chart Industries	16.01	36%	5	3	Metal Fabricating	89
616	EnLink Midstream Part.	8.64	44%	4	3	Pipeline MLPs	91	529	Encana Corp.	3.83	36%	5	4	Natural Gas (Div.)	95
2563	MGIC Investment	6.33	44%	3	5	Financial Svcs. (Div.)	57	2630	IAC/InterActiveCorp	40.42	36%	3	3	Internet	30
1407	Nimble Storage	5.76	44%	4	4	Computers/Peripherals	64	1804	Morgan Stanley	22.93	36%	3	3	Investment Banking	72
2170	Conn's, Inc.	13.12	43%	4	5	Retail (Hardlines)	66	1603	Mosaic Company	23.86	36%	5	3	Chemical (Basic)	92
333	Golar LNG Ltd.	14.50	43%	4	4	Maritime	88	167	Navistar Int'l	7.14	36%	4	4	Heavy Truck & Equip	83
998	Meritor, Inc.	6.53	43%	4	4	Auto Parts	59	1985	Panasonic Corp.	7.47	36%	4	3	Foreign Electronics	78
609	Williams Cos.	11.98	43%	—	3	Oil/Gas Distribution	74	1764	Park-Ohio	25.15	36%	4	4	Diversified Co.	58
1007	Avon Products	3.43	42%	4	4	Toiletries/Cosmetics	52	1634	Valeant Pharm. Int'l	86.95	36%	3	4	Drug	35
595	Sierra Wireless	10.41	42%	3	4	Wireless Networking	43	540	WPX Energy	4.64	36%	5	4	Natural Gas (Div.)	95

**STOCKS WITH HIGHEST PROJECTED 3- TO 5-YEAR DIVIDEND YIELD**  
Based upon the projected dividend per share 3 to 5 years hence divided by the recent price

Page No.	Stock Name	Recent Price	Est'd Future Yield	Time-liness	Safety Rank	Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Est'd Future Yield	Time-liness	Safety Rank	Industry Group	Industry Rank
337	Teekay Corp.	5.58	67%	4	4	Maritime	88	1030	CenturyLink Inc.	24.81	9%	4	3	Telecom. Utility	76
609	Williams Cos.	11.98	31%	—	3	Oil/Gas Distribution	74	948	Comtech Telecom.	18.44	9%	5	3	Telecom. Equipment	81
624	Williams Partners L.P.	13.26	31%	—	3	Pipeline MLPs	91	2401	ConocoPhillips	33.58	9%	4	3	Petroleum (Producing)	96
2650	Fortress Investment	4.18	29%	3	4	Public/Private Equity	86	1518	Corrections Corp. Amer.	28.56	9%	3	3	R.E.I.T.	28
2647	Apollo Global Mgmt	13.17	27%	4	3	Public/Private Equity	86	2376	Donnelley (R.R.) & Sons	12.97	9%	4	3	Publishing	73
531	Enerplus Corp.	3.96	25%	4	4	Natural Gas (Div.)	95	1803	Greenhill & Co.	23.09	9%	4	3	Investment Banking	72
615	Energy Transfer	20.34	24%	5	3	Pipeline MLPs	91	1528	HCP Inc.	28.33	9%	3	3	R.E.I.T.	28
1598	CVR Partners, LP	5.30	23%	5	3	Chemical (Basic)	92	1533	Liberty Property	27.57	9%	4	3	R.E.I.T.	28
616	EnLink Midstream Part.	8.64	23%	4	3	Pipeline MLPs	91	515	Royal Dutch Shell 'B'	42.62	9%	5	1	Petroleum (Integrated)	87
621	Plains All Amer. Pipe.	15.88	23%	4	3	Pipeline MLPs	91	1201	Tupperware Brands	46.80	9%	4	3	Household Products	5
614	DCP Midstream Partners	16.81	21%	4	3	Pipeline MLPs	91	1544	Ventas, Inc.	50.08	9%	3	3	R.E.I.T.	28
623	Sunoco Logistics Part.	17.19	21%	4	3	Pipeline MLPs	91	1549	Welltower Inc.	55.74	9%	3	3	R.E.I.T.	28
1513	Annaly Capital Mgmt.	9.77	18%	4	3	R.E.I.T.	28	1743	Brookfield Infrastruc.	35.49	8%	3	2	Diversified Co.	58
1638	CDI Corp.	4.54	18%	5	3	Human Resources	17	2307	Cedar Fair L.P.	49.81	8%	3	3	Recreation	21
604	Kinder Morgan Inc.	14.61	18%	—	3	Oil/Gas Distribution	74	1032	Consol. Communic.	18.87	8%	3	3	Telecom. Utility	76
622	Suburban Propane	22.27	17%	5	3	Pipeline MLPs	91	307	Copa Holdings, S.A.	49.44	8%	4	3	Air Transport	33
2649	Blackstone Group LP	24.46	16%	3	3	Public/Private Equity	86	1220	Covanta Holding Corp.	13.02	8%	4	3	Power	85
333	Golar LNG Ltd.	14.50	16%	4	4	Maritime	88	2006	Daktronics Inc.	7.49	8%	4	3	Entertainment Tech	46
605	ONEOK Inc.	20.63	16%	3	3	Oil/Gas Distribution	74	1525	FeiCor Lodging Tr.	6.61	8%	3	4	R.E.I.T.	28
2651	Gladstone Capital	5.71	15%	4	3	Public/Private Equity	86	1180	Greif, Inc.	25.89	8%	4	3	Packaging & Container	51
620	ONEOK Partners L.P.	25.88	14%	4	3	Pipeline MLPs	91	399	Iron Mountain	26.56	8%	4	3	Industrial Services	38
2533	AllianceBernstein Hldg.	17.27	13%	4	3	Financial Svcs. (Div.)	57	2392	Lamar Advertising	50.13	8%	2	3	Advertising	7
332	GasLog Ltd.	6.43	13%	5	4	Maritime	88	2361	Las Vegas Sands	39.58	8%	4	3	Hotel/Gaming	48
568	Kronos Worldwide	4.62	13%	4	3	Chemical (Specialty)	56	2428	Noble Corp. plc	7.25	8%	4	3	Oilfield Svcs/Equip.	94
613	Buckeye Partners L.P.	51.55	11%	4	3	Pipeline MLPs	91	747	POSCO ADR	36.00	8%	5	3	Steel	93
617	Enterprise Products	20.80	11%	3	3	Pipeline MLPs	91	1382	STMicroelectronics	5.35	8%	5	3	Semiconductor	45
1034	Frontier Communic.	4.32	11%	4	4	Telecom. Utility	76	2219	Tailored Brands	12.65	8%	4	3	Retail (Softlines)	75
2566	Navient Corp.	8.50	11%	—	3	Financial Svcs. (Div.)	57	518	Total ADR	41.40	8%	4	2	Petroleum (Integrated)	87
1830	StoneMor Partners L.P.	28.20	11%	3	3	Funeral Services	34	1217	AES Corp.	9.51	7%	4	3	Power	85
1592	Tec Resources Ltd. 'B'	5.52	11%	5	4	Metals & Mining (Div.)	97	1551	AEGON	4.83	7%	4	3	Insurance (Life)	79
1036	Windstream Hldgs.	5.34	11%	—	4	Telecom. Utility	76	2532	Aircastle Ltd.	15.55	7%	4	3	Financial Svcs. (Div.)	57
2164	Barnes & Noble	8.09	10%	—	4	Retail (Hardlines)	66	1582	Allegheny Techn.	9.96	7%	5	4	Metals & Mining (Div.)	97
306	Bristow Group	14.75	10%	5	3	Air Transport	57	1791	BGC Partners	8.48	7%	2	4	Brokers & Exchanges	23
2545	Crawford & Co. 'B'	4.07	10%	5	4	Financial Svcs. (Div.)	57	943	Black Box	8.18	7%	5	3	Telecom. Equipment	81
1361	Cypress Semic.	6.61	10%	4	3	Semiconductor	45	1597	CF Industries	28.47	7%	4	3	Chemical (Basic)	92
1526	Geo Group (The)	27.45	10%	3	3	R.E.I.T.	28	102	Daimler AG	66.03	7%	3	3	Automotive	67
1530	Hospitality Properties	22.17	10%	3	3	R.E.I.T.	28	529	Encana Corp.	3.83	7%	5	4	Natural Gas (Div.)	95
402	Macquarie Infrastructure	54.10	10%	3	3	Industrial Services	38	2420	Enco plc	8.47	7%	5	3	Oilfield Svcs/Equip.	94
511	Murphy Oil Corp.	17.86	10%	5	3	Petroleum (Integrated)	87	105	Ford Motor	11.35	7%	3	3	Automotive	67
1628	PDL BioPharma	2.91	10%	5	5	Drug	35	2176	GameStop Corp.	27.12	7%	4	3	Retail (Hardlines)	66
1230	Pattern Energy Group	16.11	10%	4	3	Power	85	1309	Gen'l Cable	9.96	7%	5	4	Electrical Equipment	68
1605	Potash Corp.	15.84	10%	5	3	Chemical (Basic)	92	1618	GlaxoSmithKline ADR	39.34	7%	4	1	Drug	35
2148	Rent-A-Center	11.13	10%	4	3	Retail Store	97	1531	Host Hotels & Resorts	13.85	7%	4	3	R.E.I.T.	28
1590	Umicore	10.33	10%	5	3	Metals & Mining (Div.)	97	2448	Huntsman Corp.	24.46	7%	4	3	Chemical (Diversified)	10
749	Russell Metals	15.84	10%	5	3	Steel	93	2557	nyssco Ltd.	25.85	7%	3	3	Financial Svcs. (Div.)	57
1411	Seagate Technology	29.41	10%	4	3	Computers/Peripherals	64	2652	KKR & Co. L.P.	12.62	7%	4	3	Public/Private Equity	86
2221	Stagel Stores	7.05	10%	5	4	Retail (Softlines)	75	2560	Lazard Ltd.	30.48	7%	4	3	Financial Svcs. (Div.)	57
1035	Telefonica SA ADR	9.74	10%	5	4	Telecom. Utility	76	1535	Mack-Cali R'lty	17.65	7%	3	3	R.E.I.T.	28
502	BP PLC ADR	28.95	9%	5	3	Petroleum (Integrated)	87	618	Magellan Midstream	59.43	7%	3	3	Pipeline MLPs	91
612	Boardwalk Pipeline	11.21	9%	4	4	Pipeline MLPs	91	1603	Mosaic Company	23.86	7%	5	3	Chemical (Basic)	92

# HIGH RETURNS EARNED ON TOTAL CAPITAL

Stocks with high average returns on capital in last 5 years ranked by earnings retained to common equity

Page No.	Stock Name	Ticker	Recent Price	Avg. Retained to Com. Eq.	Avg. Return On Cap.	Time-liness	Safety Rank	Beta	Current P/E Ratio	% Est'd Yield	Industry Group	Industry Rank
1991	Philip Morris Int'l	PM	90.02	871%	56%	3	2	0.80	20.3	4.5	Tobacco	14
716	Lockheed Martin	LMT	215.98	771%	37%	2	1	0.85	17.7	3.1	Aerospace/Defense	29
1925	Mead Johnson Nutrition	MJN	67.92	724%	42%	3	2	0.85	20.5	2.4	Food Processing	10
1190	Clorox Co.	CLX	128.68	159%	31%	1	2	0.65	26.1	2.4	Household Products	5
453	Moody's Corp.	MCO	80.03	158%	46%	3	3	1.15	16.2	1.8	Information Services	9
369	Popeyes LA Kitchen	PLKI	58.69	123%	31%	1	3	0.75	27.0	NIL	Restaurant	11
456	Verisk Analytics	VRSK	67.77	122%	39%	1	2	0.75	27.1	NIL	Information Services	9
2417	Core Laboratories	CLB	96.17	102%	54%	3	3	1.10	57.9	2.3	Oilfield Svcs/Equip.	94
1628	PDL BioPharma	PDLI	2.91	102%	133%	5	5	0.90	2.4	6.9	Drug	35
2002	Strayer Education	STRA	43.78	81%	51%	3	4	1.15	11.2	NIL	Educational Services	77
2652	KKR & Co. L.P.	KKR	12.62	80%	43%	4	3	1.40	4.6	5.1	Public/Private Equity	86
2215	Francesca's Hldgs.	FRAN	17.23	73%	51%	3	3	0.80	17.8	NIL	Retail (Softlines)	75
450	Gartner Inc.	IT	80.94	73%	38%	1	2	0.90	30.1	NIL	Information Services	9
1916	Herbalife, Ltd.	HLF	43.99	68%	48%	3	3	1.20	9.5	NIL	Food Processing	10
1404	Int'l Business Mach.	IBM	124.07	66%	35%	4	1	0.85	9.9	4.2	Computers/Peripherals	64
837	Jazz Pharmac. plc	JAZZ	116.70	61%	43%	1	3	1.25	10.6	NIL	Biotechnology	42
1976	National Beverage	FIZZ	35.78	58%	38%	1	3	0.75	29.3	NIL	Beverage	8
217	IDEXX Labs.	IDXX	68.49	55%	30%	2	3	0.95	32.2	0.5	Med Supp Non-Invasive	4
596	Ubiquiti Networks	UBNT	30.98	55%	45%	3	3	1.00	14.5	2.4	Wireless Networking	43
1191	Colgate-Palmolive	CL	65.88	50%	36%	3	1	0.75	41.2	2.4	Household Products	5
379	Yum! Brands	YUM	66.47	46%	30%	3	3	0.90	20.3	2.8	Restaurant	11
1792	CBOE Holdings	CBOE	61.79	45%	64%	3	4	0.75	23.8	1.5	Brokers & Exchanges	23
2650	Fortress Investment	FIG	4.18	45%	42%	3	4	1.35	3.3	7.7	Public/Private Equity	86
2623	Blue Nile	NILE	31.11	44%	42%	3	3	1.10	32.1	NIL	Internet	30
1005	WABCO Hldgs.	WBC	88.82	42%	37%	3	3	1.40	17.1	NIL	Auto Parts	59
2110	Michael Kors Hldgs.	KORS	50.23	40%	36%	3	3	1.00	11.1	NIL	Apparel	60
2222	TJX Companies	TJX	69.65	40%	39%	2	1	0.80	19.3	1.2	Retail (Softlines)	75
2565	MasterCard Inc.	MA	81.97	39%	41%	2	2	1.05	22.5	0.9	Financial Svcs. (Div.)	30
2636	Priceline Group (The)	PCLN	991.29	38%	32%	2	1	1.15	15.0	NIL	Internet	1
2600	Accenture Plc	ACN	93.32	36%	57%	2	1	1.00	17.9	2.4	IT Services	30
2622	Baidu, Inc.	BIDU	140.68	36%	32%	3	3	1.25	24.4	NIL	Internet	30
2220	Ross Stores	ROST	54.53	36%	39%	1	2	0.85	20.7	1.0	Retail (Softlines)	75
1975	Monster Beverage	MINST	118.91	35%	35%	2	3	0.85	32.2	NIL	Beverage	8
2317	Polaris Inds.	PIL	78.17	35%	40%	4	3	1.25	12.3	2.8	Recreation	21
1996	Apollo Education Group	APOL	8.56	34%	31%	4	3	1.15	15.6	NIL	Educational Services	77
2206	Buckle (The), Inc.	BKE	28.67	34%	46%	4	3	0.95	9.7	3.5	Retail (Softlines)	75
1626	Novo Nordisk ADR	NVO	46.58	33%	53%	1	2	0.85	20.5	1.9	Drug	35
2613	Manhattan Assoc.	MANH	46.23	31%	31%	1	3	1.05	31.7	NIL	IT Services	1
1398	Apple Inc.	AAPL	94.99	30%	31%	3	2	0.95	10.4	2.3	Computers/Peripherals	64
1997	Bridgepoint Education	BPI	6.42	30%	30%	4	4	1.30	29.2	NIL	Educational Services	77
1367	Linear Technology	LTTC	40.91	29%	37%	3	2	1.05	19.0	3.1	Semiconductor	45
2325	Sturm, Ruger & Co.	RGR	62.51	29%	45%	3	3	0.95	19.5	2.0	Recreation	21
2169	Coach Inc.	COH	34.05	28%	40%	3	3	1.10	17.4	4.0	Retail (Hardlines)	66
448	FactSet Research	FDS	137.59	28%	38%	2	2	1.00	22.0	1.3	Information Services	9
2364	Marriott Intl	MAR	60.77	25%	44%	2	3	1.15	16.9	1.6	Hotel/Gaming	48
938	Vonage Holdings	VG	4.51	23%	39%	3	4	1.20	14.5	NIL	Telecom. Services	25
386	C.H. Robinson	CHRW	69.69	20%	33%	3	2	0.90	19.3	2.5	Industrial Services	38
408	Rollins, Inc.	ROL	24.88	18%	30%	2	2	0.95	33.2	1.6	Industrial Services	38
824	Computer Prog. & Sys.	CPSI	56.91	13%	45%	3	3	0.85	26.7	4.5	Healthcare Information	16
2640	VenSign Inc.	VRSN	72.62	10%	51%	1	3	0.85	23.7	NIL	Internet	30

# BARGAIN BASEMENT STOCKS

Stocks with current price-earnings multiples and price-to-"net" working capital ratios that are in the bottom quartile of the Value Line universe

("Net" working capital equals current assets less all liabilities including long-term debt and preferred)

Page No.	Stock Name	Ticker	Recent Price	Percent Price-to "Net" Wkg. Capital	Current P/E Ratio	Percent Price-to Book Value	Time-liness	Safety Rank	Beta	% Est'd Yield	Industry Group	Industry Rank
979	China Auto. Sys.	CAAS	3.62	61%	3.9	37%	5	4	1.35	NIL	Auto Parts	59
1343	Skullcandy, Inc.	SKUL	3.19	79%	10.6	54%	4	4	1.25	NIL	Electronics	63
1123	Beazer Homes USA	BZH	6.50	85%	5.0	34%	4	5	2.15	NIL	Homebuilding	47
1129	M.D.C. Holdings	MDC	19.77	100%	11.9	78%	3	3	1.40	5.1	Homebuilding	47
1326	Benchmark Electronics	BHE	21.27	113%	12.5	81%	3	3	1.15	NIL	Electronics	63
1135	Taylor Morrison Home	TMHC	11.60	122%	8.1	73%	4	3	1.40	NIL	Homebuilding	47
1802	Goldman Sachs	GS	148.25	125%	7.9	78%	3	2	1.25	1.8	Investment Banking	72
732	Haynes International	HAYN	29.73	126%	9.3	108%	4	3	1.30	3.0	Metal Fabricating	99
1130	Meritage Homes	MTH	29.34	128%	8.1	93%	3	3	1.40	NIL	Homebuilding	47
948	Comtech Telecom.	CMTL	18.44	130%	12.4	74%	5	3	1.10	6.5	Telecom. Equipment	81
1124	CalAtlantic Group	CAA	28.75	143%	9.2	90%	3	4	1.50	0.6	Homebuilding	47
2221	Stage Stores	SSI	7.05	144%	10.2	43%	5	4	1.40	8.5	Retail (Softlines)	75
1136	Toll Brothers	TOL	25.05	147%	9.8	105%	3	3	1.35	NIL	Homebuilding	47
1410	ScanSource	SCSC	31.30	148%	11.0	109%	3	3	1.20	NIL	Computers/Peripherals	64
1134	TRI Pointe Group	TPH	9.29	148%	7.2	89%	3	3	1.30	NIL	Homebuilding	47
1403	Ingram Micro 'A'	IM	27.39	152%	9.0	105%	2	3	1.05	1.5	Computers/Peripherals	64
1127	KB Home	KBH	9.76	156%	8.7	53%	3	4	1.65	1.0	Homebuilding	47
2187	Movado Group	MOV	24.51	157%	10.7	124%	3	3	1.30	1.8	Retail (Hardlines)	66
1412	Tech Data	TECD	64.02	171%	11.1	112%	2	3	1.00	NIL	Computers/Peripherals	64
1994	Universal Corp.	UVV	53.01	175%	11.1	85%	3	3	0.75	4.0	Tobacco	14
1805	Piper Jaffray Cos.	PJC	39.80	183%	11.5	75%	4	3	1.30	NIL	Investment Banking	72
2181	Insight Enterprises	NSIT	22.93	187%	10.2	121%	3	3	1.25	NIL	Retail (Hardlines)	66
1325	Avnet, Inc.	AVT	38.87	207%	8.6	112%	3	3	1.25	1.7	Electronics	63
2553	Franklin Resources	BEN	32.09	217%	9.3	164%	2	3	1.25	2.3	Financial Svcs. (Div.)	57
1125	Horton D.R.	DHI	24.04	225%	10.5	150%	2	3	1.35	1.3	Homebuilding	47
1132	PulteGroup, Inc.	PHM	16.00	249%	9.2	119%	3	3	1.75	2.3	Homebuilding	47
2327	Winn-Dixie	WGO	16.53	264%	10.3	242%	3	3	1.15	2.4	Recreation	21
2150	Stein Mart	SMART	6.61	281%	9.9	270%	5	3	0.95	4.5	Retail Store	71
1796	Investment Techn.	ITC	17.04	291%	5.9	128%	4	3	1.20	1.6	Brokers & Exchanges	23
949	Ericsson ADR	ERIC	8.56	295%	11.7	162%	4	3	1.20	4.8	Telecom. Equipment	81
1337	Methode Electronics	MEI	25.14	331%	10.9	199%	3	3	1.40	1.6	Electronics	63
2180	Hibbett Sports	HIBB	31.39	343%	10.5	238%	3	3	0.90	NIL	Retail (Hardlines)	66
1342	Sanmina Corp.	SANM	19.52	358%	8.3	100%	3	3	1.50	NIL	Electronics	63
1414	Western Digital	WDC	40.18	362%	6.3	100%	4	3	1.30	5.0	Computers/Peripherals	64
2156	Deckers Outdoor	DECK	49.57	364%	10.0	156%	3	3	1.05	NIL	Shoe	40

# UNTIMELY STOCKS

Stocks ranked 5 (Lowest) for Relative Price Performance in the next 12 months

Page No.	Stock Name	Recent Price	Rank Safety	Current Technical	P/E Ratio	% Est'd Yield	Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Rank Safety	Current Technical	P/E Ratio	% Est'd Yield	Industry Group	Industry Rank
1581	Alcoa Inc.	7.81	3	3	28.9	1.5	Metals & Mining (Div.)	97	165	Joy Global	10.75	3	4	35.8	0.4	Heavy Truck & Equip	83
1582	Allegheny Techn.	9.96	4	3	NMF	3.2	Metals & Mining (Div.)	97	734	Kennametal Inc.	17.56	3	3	14.6	4.6	Metal Fabricating	89
1583	Alliance Resource	12.02	3	4	4.1	22.5	Metals & Mining (Div.)	97	1760	LSB Inds. ■	5.17	4	2	19.9	NIL	Diversified Co.	58
2398	Anadarko Petroleum	37.24	3	3	NMF	0.5	Petroleum (Producing)	96	2405	Marathon Oil Corp.	7.29	3	3	NMF	2.7	Petroleum (Producing)	96
2399	Apache Corp.	35.58	3	3	NMF	2.8	Petroleum (Producing)	96	1603	Mosaic Company ■	23.86	3	4	7.0	4.9	Chemical (Basic)	92
2648	Apollo Investment	5.04	3	3	8.0	15.9	Public/Private Equity	86	511	Murphy Oil Corp.	17.86	3	3	NMF	7.8	Petroleum (Integrated)	87
1584	BHP Billiton Ltd. ADR	21.79	3	3	14.5	11.4	Metals & Mining (Div.)	97	1227	NRG Energy	10.84	3	4	36.1	5.4	Power	85
502	BP PLC ADR	28.95	3	3	14.9	8.3	Petroleum (Integrated)	87	2425	Nabors Inds.	6.10	4	3	NMF	3.9	Oilfield Svcs/Equip.	94
2353	Belmond Ltd.	8.55	4	4	47.5	NIL	Hotel/Gaming	48	2427	National Oilwell Varco	27.56	3	3	20.4	6.7	Oilfield Svcs/Equip.	94
943	Black Box	8.18	3	3	7.9	5.4	Telecom. Equipment	81	2407	Oasis Petroleum	4.95	5	3	NMF	NIL	Petroleum (Producing)	96
707	Bombardier Inc. 'B'	0.80	4	1	11.4	NIL	Aerospace/Defense	29	406	Outerwall Inc. ■	27.01	3	3	2.8	4.4	Industrial Services	38
306	Bristow Group	14.75	3	3	6.6	1.9	Air Transport	33	2634	Overstock.com	10.36	4	3	29.6	NIL	Internet	30
2414	C&J Energy Svcs.	2.26	5	2	NMF	NIL	Oilfield Svcs/Equip.	94	1181	Owens-Illinois	13.54	3	3	5.8	NIL	Packaging & Container	51
1638	CDI Corp.	4.54	3	2	NMF	11.5	Human Resources	17	1628	PDL BioPharma	2.91	5	2	2.4	6.9	Drug	35
2542	CIT Group	26.74	3	2	7.8	2.5	Financial Svcs. (Div.)	57	513	Petroleo Brasileiro ADR	2.99	4	1	NMF	NIL	Petroleum (Integrated)	87
1598	CVR Partners, LP	5.30	3	3	6.0	14.2	Chemical (Basic)	92	2192	Pier 1 Imports	4.21	4	2	8.8	6.7	Retail (Hardlines)	66
2400	Can. Natural Res.	28.12	3	3	NMF	3.3	Petroleum (Producing)	96	747	POSCO ADR	36.00	3	5	NMF	6.1	Steel	93
742	Carpenter Technology	26.89	3	3	13.9	2.7	Steel	93	1605	Polash Corp.	15.84	3	3	14.8	6.3	Chemical (Basic)	92
730	Chart Industries	16.01	3	3	13.1	NIL	Metal Fabricating	89	537	QEP Resources	10.93	3	3	NMF	0.7	Natural Gas (Div.)	95
117	Checkpoint Systems	6.10	3	3	67.8	NIL	Precision Instrument	55	1245	Quanta Services	17.54	3	3	10.7	NIL	Engineering & Const	80
523	Chesapeake Energy	1.95	4	1	1.0	NIL	Natural Gas (Div.)	95	2409	Range Resources Corp.	28.04	3	4	NMF	0.6	Petroleum (Producing)	96
2208	Chico's FAS	10.06	3	4	18.0	3.2	Retail (Softlines)	75	1590	Rio Tinto plc	25.36	3	3	8.3	4.3	Metals & Mining (Div.)	97
979	China Auto. Sys.	3.62	4	2	3.9	NIL	Auto Parts	59	515	Royal Dutch Shell 'B'	42.62	1	4	10.4	8.8	Petroleum (Integrated)	87
743	Cliffs Natural Res.	1.78	5	3	NMF	NIL	Steel	93	749	Russel Metals	15.84	3	4	14.1	9.6	Steel	93
948	Comtech Telecom.	18.44	3	3	12.4	6.5	Telecom. Equipment	81	570	Schnitzer Steel	13.34	3	4	NMF	5.6	Steel	93
2402	Continental Resources ■	18.18	3	3	NMF	NIL	Petroleum (Producing)	96	2434	Seadrill Ltd.	1.73	5	1	1.5	NIL	Oilfield Svcs/Equip.	94
2545	Crawford & Co. 'B' ■	4.07	4	1	6.8	4.9	Financial Svcs. (Div.)	57	539	Southwestern Energy	8.37	3	4	NMF	NIL	Natural Gas (Div.)	95
982	Dana Holding Corp. ■	11.73	3	3	6.3	2.0	Auto Parts	59	2221	Stage Stores	7.05	4	3	10.2	8.5	Retail (Softlines)	75
2403	Dentbury Resources	1.17	5	1	NMF	NIL	Petroleum (Producing)	96	1424	Staples Inc.	8.40	3	3	9.0	5.7	Office Equip/Supplies	82
526	Devon Energy	22.66	3	3	NMF	2.2	Natural Gas (Div.)	95	2150	Stein Mart	6.61	3	4	9.9	4.5	Retail Store	71
1999	DeVry Education Group	17.14	3	4	6.9	2.2	Educational Services	77	1577	Stillwater Mining	6.63	3	4	36.8	NIL	Precious Metals	90
330	Diana Shipping	2.20	5	2	NMF	NIL	Maritime	88	1382	STMicroelectronics	5.35	3	3	38.2	7.5	Semiconductor	45
1568	Eldorado Gold	2.62	4	3	23.8	0.8	Precious Metals	90	622	Suburban Propane	22.27	3	3	11.1	15.9	Pipeline MLPs	91
529	Encana Corp.	3.83	4	2	NMF	1.6	Natural Gas (Div.)	95	2435	Superior Energy Svcs.	9.14	3	3	NMF	3.5	Oilfield Svcs/Equip.	94
530	Energen Corp.	26.77	3	3	72.4	0.3	Natural Gas (Div.)	95	1578	Tahoe Resources	7.92	4	4	12.2	3.0	Precious Metals	90
615	Energy Transfer	20.34	3	3	11.6	20.7	Pipeline MLPs	91	1592	Teck Resources Ltd. 'B'	5.52	4	3	27.6	1.8	Metals & Mining (Div.)	97
2420	Enscop. plc	8.47	3	3	3.5	7.1	Oilfield Svcs/Equip.	94	1035	Telefonica SA ADR	9.74	4	3	12.8	8.2	Telecom. Utility	76
2421	FMC Technologies ■	22.98	3	3	14.0	NIL	Oilfield Svcs/Equip.	94	2437	Tidewater Inc.	5.19	4	3	NMF	19.3	Oilfield Svcs/Equip.	94
2174	Fossil Group	33.67	3	4	7.3	NIL	Retail (Hardlines)	66	2223	Tilly's, Inc.	6.44	3	4	17.4	NIL	Retail (Softlines)	75
1587	Freeptr-McMoRan Inc.	5.00	4	3	41.7	NIL	Metals & Mining (Div.)	97	1003	Titan Int'l	3.05	3	2	NMF	0.7	Auto Parts	59
1947	Fresh Market (The)	18.67	3	3	11.7	NIL	Retail/Wholesale Food	24	1234	TransAlta Corp.	5.18	4	4	21.6	3.1	Power	85
332	GasLog Ltd.	6.43	4	3	20.1	8.7	Maritime	88	2438	Transocean Ltd.	8.91	4	3	7.7	NIL	Oilfield Svcs/Equip.	94
1309	Gen'l Cable	9.96	4	3	8.8	7.2	Electrical Equipment	68	2348	Tribune Media Co.	27.36	3	3	14.4	3.7	Entertainment	53
2629	Groupm, Inc. ■	2.22	5	2	NMF	NIL	Internet	30	2410	Ultra Petroleum	1.44	5	2	NMF	NIL	Petroleum (Producing)	96
334	GulfMark Offshore	3.44	4	3	NMF	NIL	Maritime	88	752	U.S. Steel Corp.	7.34	4	4	NMF	2.7	Steel	93
951	Harmonic, Inc.	3.12	3	2	20.8	NIL	Telecom. Equipment	81	1593	Vale S.A. ADR	2.47	4	2	9.9	NIL	Metals & Mining (Div.)	97
395	Harsco Corp.	6.06	3	3	11.0	3.3	Industrial Services	38	540	WPX Energy	4.64	4	2	NMF	NIL	Natural Gas (Div.)	95
2423	Helix Energy Solutions	3.29	3	1	NMF	NIL	Oilfield Svcs/Equip.	94	2411	Whiting Petroleum	5.66	3	3	NMF	NIL	Petroleum (Producing)	96
506	Hess Corp.	38.70	3	3	NMF	2.6	Petroleum (Integrated)	87	1579	Yamana Gold	2.36	5	3	NMF	2.5	Precious Metals	90
2108	Iconix Brand Group	6.76	4	4	4.7	NIL	Apparel	60	2226	Zumiez Inc.	18.34	3	5	18.0	NIL	Retail (Softlines)	75

■ Newly added this week.

## HIGHEST DIVIDEND YIELDING NON-UTILITY STOCKS

Based upon estimated year-ahead dividends per share

Current										Current									
Page No.	Stock Name	Recent Price	Time-Inness	Safety Rank	P/E Ratio	% Est'd Yield	Industry Group	Industry Rank	Page No.	Stock Name	Recent Price	Time-Inness	Safety Rank	P/E Ratio	% Est'd Yield	Industry Group	Industry Rank		
624	Williams Partners L.P.	13.26	-	3	17.7	25.9	Pipeline MLPs	91	1220	Covanta Holding Corp.	13.02	4	3	46.5	7.7	Power	85		
1583	Alliance Resource	12.02	5	3	4.1	22.5	Metals & Mining (Div.)	97	2650	Fortress Investment	4.18	3	4	3.3	7.7	Public/Private Equity	86		
609	Williams Cos.	11.96	-	3	12.4	21.4	Oil/Gas Distribution	74	617	Enterprise Products	20.80	-	3	16.1	7.6	Pipeline MLPs	91		
615	Energy Transfer	20.34	-	5	11.6	20.7	Pipeline MLPs	91	2566	Navigent Corp.	8.50	-	3	4.6	7.5	Financial Svcs. (Div.)	57		
1589	Natural Resource	9.20	-	5	1.8	19.6	Metals & Mining (Div.)	97	1382	STMicroelectronics	5.35	5	3	38.2	7.5	Semiconductor	45		
2437	Tidewater Inc.	5.19	5	4	NMF	19.3	Oilfield Svcs/Equip.	94	2164	Barnes & Noble	8.09	-	4	18.4	7.4	Retail (Hardlines)	66		
614	DCP Midstream Partners	16.81	4	3	8.2	18.6	Pipeline MLPs	91	399	Iron Mountain	26.56	4	3	20.3	7.3	Industrial Services	38		
616	EnLink Midstream Part.	8.64	4	3	15.2	18.1	Pipeline MLPs	91	2361	Las Vegas Sands	39.58	4	3	16.4	7.3	Hotel/Gaming	48		
621	Plains All Amer. Pipe.	15.88	4	3	10.2	17.8	Pipeline MLPs	91	1309	Gen'l Cable	9.96	5	4	8.8	7.2	Electrical Equipment	68		
2648	Apollo Investment	5.04	5	3	8.0	15.9	Public/Private Equity	86	2420	Enscop. plc	8.47	5	3	3.5	7.1	Oilfield Svcs/Equip.	94		
622	Suburban Propane	22.27	5	3	11.1	15.9	Pipeline MLPs	91	1533	Liberty Property	27.57	4	3	17.3	6.9	R.E.I.T.	28		
2651	Gladstone Capital	5.71	4	3	5.9	14.7	Public/Private Equity	86	1628	PDL BioPharma	2.91	5	5	2.4	6.9	Drug	35		
1598	CVR Partners, LP	5.30	5	3	6.0	14.2	Chemical (Basic)	92	1546	W.P. Carey Inc.	55.90	3	3	38.3	6.9	R.E.I.T.	28		
568	Kronos Worldwide	4.62	4	3	27.2	13.0	Chemical (Specialty)	56	307	Copa Holdings, S.A.	49.44	3	3	10.0	6.8	Air Transport	33		
1211	Liberty All-Star	4.34	-	2	NMF	12.9	Investment Co.	-	102	Daimler AG	66.03	3	3	7.5	6.8	Automotive	67		
605	ONEOK Inc.	20.63	3	3	12.4	12.7	Oil/Gas Distribution	74	1361	Cypress Semic.	6.61	4	3	11.4	6.7	Semiconductor	45		
331	Frontline Ltd.	8.15	3	5	4.3	12.3	Maritime	88	2427	National Oilwell Varco	27.56	5	3	20.4	6.7	Oilfield Svcs/Equip.	94		
620	ONEOK Partners L.P.	25.88	4	3	12.9	12.2	Pipeline MLPs	91	2192	Pier 1 Imports	4.21	5	4	8.8	6.7	Retail (Hardlines)	66		
1638	CDI Corp.	4.54	5	3	NMF	11.5	Human Resources	17	1791	BGC Partners	8.48	2	4	10.0	6.6	Brokers & Exchanges	23		
1584	BHP Billiton Ltd. ADR	21.79	5	3	14.5	11.4	Metals & Mining (Div.)	97	2307	Cedar Fair L.P.	49.81	3	3	14.6	6.6	Recreation	21		
1513	Annaly Capital Mgmt.	9.77	4	3	8.8	11.3	R.E.I.T.	28	608	TransCanada Corp.	34.44	4	2	16.2	6.6	Oil/Gas Distribution	74		
2390	Harte-Hanks	3.13	-	5	20.9	10.9	Advertising	91	948	Comtech Telecom.	18.44	5	3	12.4	6.5	Telecom. Equipment	81		
623	Sunoco Logistics Part.	17.19	4	3	12.4	10.6	Pipeline MLPs	91	1180	Greif, Inc.	25.89	4	3	11.8	6.5	Packaging & Container	51		
426	Aberdeen Australia Fd.	4.86	-	3	NMF	10.3	Investment Co.(Foreign)	-	518	Total ADR	41.40	4	2	12.2	6.5	Petroleum (Integrated)	87		
1830	Stonemor Partners L.P.	26.20	3	3	NMF	10.1	Fund Services	34	1605	Polash Corp.	15.84	5	3	14.8	6.3	Chemical (Basic)	92		
2533	AllianceBernstein Hldg.	17.27	4	3	9.5	10.0	Financial Svcs. (Div.)	57	1544	Ventas, Inc.	50.08	3	3	29.6	6.3	R.E.I.T.	28		
2649	Blackstone Group LP	24.46	3	3	6.4	10.0	Public/Private Equity	86	2532	Aircastle Ltd.	15.55	4	3	7.7	6.2	Financial Svcs. (Div.)	57		
749	Russel Metals	15.84	5	3	14.1	9.6	Steel	93	1906	Cal-Maine Foods	48.56	2	3	6.6	6.2	Food Processing	10		
1526	Go Group (The)	27.45	3	3	13.0	9.5	R.E.I.T.	28	1604	Olin Corp.	12.90	-	3	15.7	6.2	Chemical (Basic)	92		
1204	Aberdeen Asia-Pac. Fd.	4.48	-	4	NMF	9.4	Investment Co.	-	606	Pembina Pipeline Corp.	29.76	3	3	24.4	6.2	Oil/Gas Distribution	74		
613	Buckeye Partners L.P.	51.55	4	3	14.6	9.4	Pipeline MLPs	91	1540	Ryman Hospitality	46.03	2	3	16.5	6.2	R.E.I.T.	28		
1590	Hospital Properties	22.17	3	3	12.9	9.2	R.E.I.T.	88	1549	Welltower Inc.	55.74	3	3	23.6	6.2	R.E.I.T.	28		
1230	Pattern Energy Group	16.11	4	3	15.6	9.2	Power	85	1308	Gammin Ltd.	33.95	4	2	14.8	6.1	Electrical Equipment	68		
531	Enbridge Corp.	3.96	4	4	NMF	9.1	Natural Gas (Div.)	95	2392	Lamar Advertising	50.13	2	3	16.7	6.1	Advertising	97		
402	Macquarie Infrastructure	54.10	3	3	47.5	9.1	Industrial Services	38	747	POSCO ADR	36.00	5	3	NMF	6.1	Steel	93		
1212	MFS Multimarket	5.38	-	4	NMF	8.9	Investment Co.	-	1743	Brookfield Infrastruc.	35.49	3	3	15.9	6.0	Diversified Co.	58		
2384	New Media Investment	14.91	-	3	20.1	8.9	Newspaper	84	1531	Host Hotels & Resorts	13.85	4	2	19.0	6.0	R.E.I.T.	28		
515	Royal Dutch Shell 'B'	42.62	5	1	10.4	8.8	Petroleum (Integrated)	87	2448	Hunismart Corp.	8.37	4	4	4.8	6.0	Chemical (Diversified)	50		
332	GasLog Ltd.	6.43	5	4	20.1	8.7	Maritime	88	2518	Natl Bank of Canada	37.38	3	2	8.1	6.0	Bank	54		
1411	Seagate Technology	29.41	4	3	9.0	8.6	Computers/Peripherals	64	2394	National CinemaMedia	14.63	3	3	25.7	6.0	Advertising	7		
2647	Apollo Global Mgmt	13.17	4	3	7.2	8.5	Public/Private Equity	86	2006	Daktronics Inc.	7.49	4	3	16.3	5.9	Entertainment Tech	46		
2221	Slava Stores	7.05	5	4	10.2	8.5	Retail (Softlines)	75	1618	GlaxoSmithKline ADR	39.34	4	1	20.8	5.9	Drug	35		
502	BP PLC ADR	28.95	4	3	14.9	8.3	Petroleum (Integrated)	87	105	Ford Motor	11.35	3	5	5.6	5.8	Automotive	66		
2428	Noble Corp. plc	7.25	4	3	5.2	8.3	Oilfield Svcs/Equip.	94	1228	Northland Power	18.50	3	3	23.7	5.8	Power	85		
1528	HCP Inc.	28.33	3	3	13.1	8.1	R.E.I.T.	28	1201	Tupperware Brands	46.80	4	3	12.5	5.8	Household Products	5		
1208	Deutsche High Income	7.60	4	3	NMF	8.0	Investment Co.	-											
2376	Donnelley (R.R.) & Sons	12.97	4	3	16.0	8.0	Publishing	73											
1518	Corrections Corp. Amer.	28.56	3	3	16.4	7.9	R.E.I.T.	28											
1803	Greenhill & Co.	23.09	4	3	14.4	7.8	Investment Banking	72											
511	Murphy Oil Corp.	17.86	5	3	NMF	7.8	Petroleum (Integrated)	87											
† Dividend cut possible																			

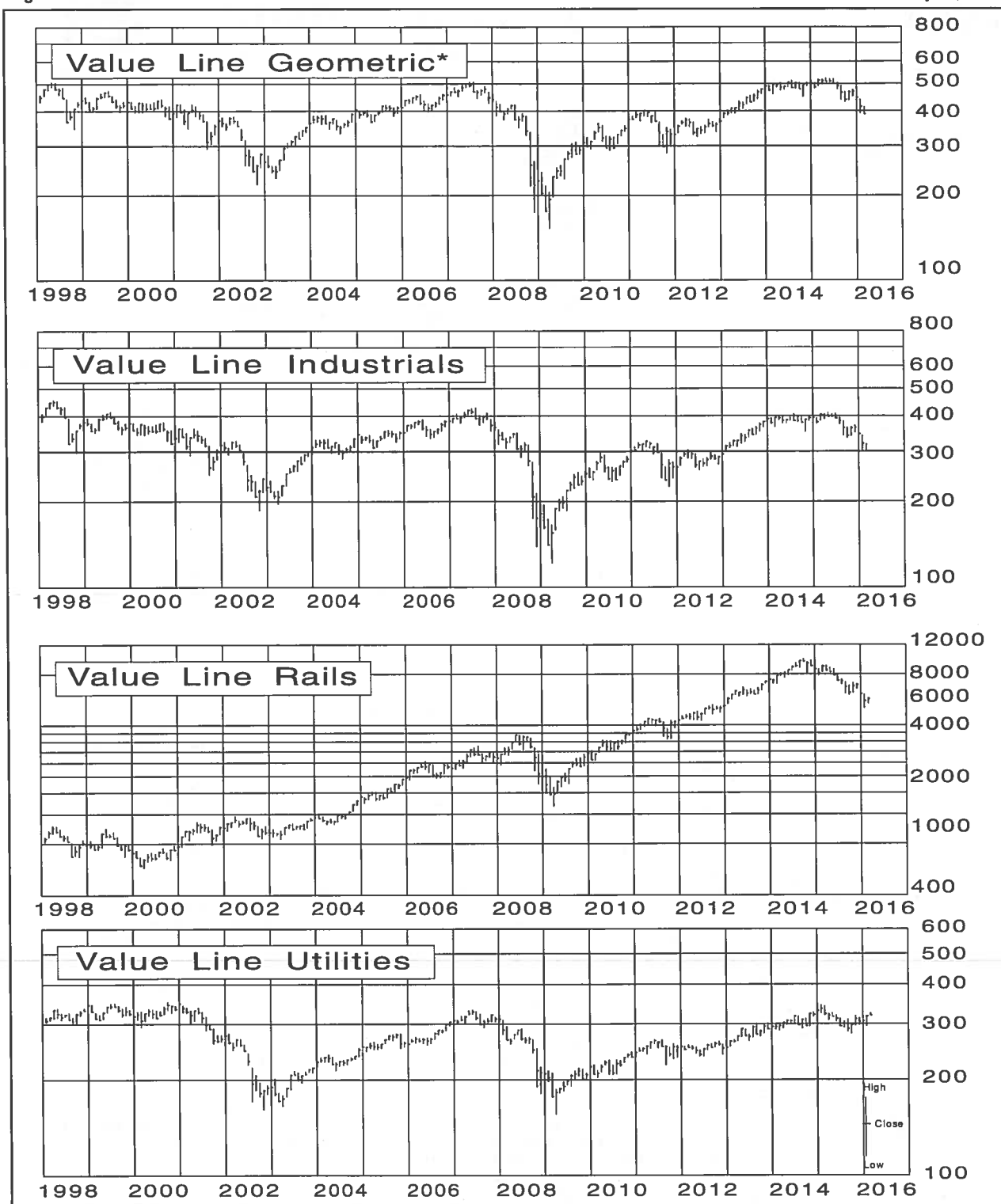
February 19, 2016

## SUMMARY AND INDEX • THE VALUE LINE INVESTMENT SURVEY

## HIGHEST GROWTH STOCKS

(To be included, a company's annual growth of sales, cash flow, earnings, dividends and book value must together have averaged 10% or more over the past 10 years and be expected to average at least 10% in the coming 3-5 years.)

Page No.	Stock Name	Ticker	Recent Price	Growth Past 10 Years	Est'd Growth 3-5 Years	Time-Iness	Safety Rank	Beta	Current P/E Ratio	% Est'd Yield	Estimated 3-5 Year Price Appreciation	Industry Group	Industry Rank
1702	AAON, Inc.	AAON	20.10	12%	13%	2	3	1.25	21.6	1.1	25-75%	Machinery	37
2119	Advance Auto Parts	AAP	141.50	15%	14%	3	2	0.90	16.1	0.2	10-50%	Retail Automotive	18
795	Aetna Inc.	AET	97.20	16%	11%	2	2	0.90	12.4	1.0	35-80%	Medical Services	31
1610	Allergan plc	AGN	272.34	17%	11%	--	2	0.90	17.9	NIL	20-60%	Drug	35
442	Alliance Data Sys.	ADS	177.12	21%	14%	3	3	1.05	10.6	NIL	85-175%	Information Services	9
2620	Alphabet Inc.	GOOG	678.11	47%	15%	1	2	1.00	22.0	NIL	30-75%	Internet	30
831	Amgen	AMGN	143.16	15%	11%	2	1	0.90	13.9	2.8	40-70%	Biotechnology	42
1398	Apple Inc.	AAPL	94.99	45%	14%	3	2	0.95	10.4	2.3	60-115%	Computers/Peripherals	64
1354	ARM Holdings plc	ARMH	41.39	15%	15%	3	3	1.25	33.1	0.8	45-115%	Semiconductor	45
2205	Ascena Retail Group	ASNA	6.62	13%	13%	4	3	1.05	8.5	NIL	200-355%	Retail (Softlines)	75
704	Astronics Corp.	ATRO	29.08	20%	16%	3	3	1.10	9.3	NIL	140-260%	Aerospace/Defense	29
351	BJ's Restaurants	BJRI	40.73	19%	15%	3	3	0.90	22.8	NIL	85-180%	Restaurant	11
559	Balchem Corp.	BCPC	62.66	19%	12%	2	3	1.05	27.1	0.5	5-60%	Chemical (Specialty)	56
1964	Boston Beer 'A'	SAM	180.29	19%	13%	3	3	0.95	23.4	NIL	20-80%	Beverage	8
355	Buffalo Wild Wings	BWLD	140.00	26%	16%	2	3	0.85	22.5	NIL	40-105%	Restaurant	11
385	CBRE Group	CBG	23.32	14%	11%	2	3	1.35	9.7	NIL	95-180%	Industrial Services	38
967	CVS Health	CVS	90.51	15%	12%	2	1	0.85	15.9	1.9	50-80%	Pharmacy Services	15
522	Cabot Oil & Gas 'A'	COG	19.59	15%	16%	4	3	1.10	NMF	0.4	105-205%	Natural Gas (Div.)	95
1906	Cal-Maine Foods	CALM	48.56	17%	11%	2	3	1.00	6.6	6.2	N-35%	Food Processing	10
1907	Calavo Growers	CVGW	49.43	11%	14%	3	3	0.75	24.7	1.6	N-40%	Food Processing	10
206	Cantel Medical Corp.	CMN	58.00	12%	13%	1	3	1.05	38.4	0.2	N-40%	Med Supp Non-Invasive	4
2123	CarMax, Inc.	KMX	42.86	16%	11%	3	3	1.15	14.4	NIL	75-155%	Retail Automotive	18
1615	Celgene Corp.	CELG	100.50	42%	15%	2	3	1.10	39.7	NIL	N-45%	Drug	35
799	Centene Corp.	CNC	55.51	16%	19%	2	3	1.00	16.5	NIL	25-90%	Medical Services	31
823	Cerner Corp.	CERN	53.71	18%	15%	2	2	1.00	23.6	NIL	70-125%	Healthcare Information	16
1745	Chemered Corp.	CHE	130.37	15%	11%	1	3	0.85	19.8	0.7	10-65%	Diversified Co.	58
800	Cigna Corp.	CI	128.18	14%	13%	--	2	0.90	14.1	NIL	20-65%	Medical Services	31
118	Cognex Corp.	CGNX	30.91	12%	11%	3	3	1.30	27.6	0.9	30-95%	Precision Instrument	55
2606	Cognizant Technology	CTSH	52.33	34%	15%	2	2	1.05	15.8	NIL	45-90%	IT Services	1
1708	Columbus McKinnon	CMCO	13.64	11%	11%	4	3	1.25	7.9	1.2	85-195%	Machinery	37
445	CoStar Group	CSGP	154.01	15%	16%	3	3	1.10	46.7	NIL	35-100%	Information Services	9
2624	Ctrip.com Int'l ADR	CTRP	36.57	32%	22%	1	3	1.15	76.2	NIL	N-35%	Internet	30
1748	Danaher Corp.	DHR	85.19	16%	11%	1	2	1.05	18.0	0.6	45-100%	Diversified Co.	58
802	DaVita HealthCare	DVA	62.25	16%	11%	2	2	0.90	15.9	NIL	55-110%	Medical Services	31
2140	Dollar Tree, Inc.	DLTR	75.24	17%	19%	3	2	0.70	20.6	NIL	45-100%	Retail Store	71
182	Edwards Lifesciences	EW	76.34	12%	13%	1	3	0.85	30.2	NIL	25-85%	Med Supp Invasive	3
320	Forward Air	FWRD	42.95	11%	11%	2	3	1.05	16.8	1.1	65-145%	Trucking	65
2104	G-III Apparel Group	GIII	45.57	20%	14%	3	3	1.20	14.9	NIL	30-95%	Apparel	60
344	Genesee & Wyoming	GWR	54.86	17%	11%	4	3	1.35	13.4	NIL	110-210%	Railroad	70
2105	Gildan Activewear	GIL	22.71	18%	13%	3	3	0.95	13.1	1.3	75-165%	Apparel	60
1617	Gilead Sciences	GILD	87.25	36%	18%	3	3	0.95	7.5	2.0	30-100%	Drug	35
1915	Hain Celestial Group	HAIN	34.13	13%	12%	3	3	0.95	15.9	NIL	30-105%	Food Processing	10
396	Healthcare Svcs.	HCSG	33.75	13%	12%	1	2	0.90	31.3	2.3	20-50%	Industrial Services	38
713	HEICO Corp.	HEI	54.88	18%	11%	2	3	1.00	25.5	0.3	30-80%	Aerospace/Defense	29
216	Hologic, Inc.	HOLX	32.89	14%	12%	1	3	1.10	31.3	NIL	5-65%	Med Supp Non-Invasive	4
323	Hunt (J.B.)	JBHT	75.12	12%	11%	3	2	0.90	19.1	1.2	45-75%	Trucking	65
913	ITC Holdings	ITC	38.65	18%	12%	--	2	0.70	19.1	2.1	15-70%	Electric Util. (Central)	19
2612	Infosys Ltd. ADR	INFY	16.34	24%	11%	3	2	0.85	17.4	1.7	55-115%	IT Services	1
2585	Intuit Inc.	INTU	90.13	12%	12%	2	2	1.10	25.3	1.3	40-65%	Computer Software	26
400	Jones Lang LaSalle	JLL	104.92	13%	11%	3	3	1.35	10.5	0.6	55-135%	Industrial Services	38
953	Juniper Networks	JNPR	21.99	19%	14%	3	3	1.35	12.8	2.1	35-125%	Telecom. Equipment	81
346	Kansas City South'n	KSU	78.59	12%	12%	4	3	1.20	16.3	1.7	60-135%	Railroad	70
1643	Korn/Ferry Int'l	KFY	27.79	11%	11%	3	3	1.30	13.4	1.4	45-115%	Human Resources	17
994	LKO Corp.	LKO	24.19	25%	12%	2	3	1.00	15.5	NIL	85-170%	Auto Parts	59
1393	Lam Research	LRCX	65.58	14%	14%	3	3	1.15	12.9	1.8	15-70%	Semiconductor Equip	41
2613	Manhattan Assoc.	MANH	46.23	13%	15%	1	3	1.05	31.7	NIL	10-60%	IT Services	1
403	MAXIMUS Inc.	MMS	46.43	16%	17%	3	3	0.90	18.2	0.4	50-125%	Industrial Services	38
222	McKesson Corp.	MCK	150.38	14%	11%	3	1	0.90	11.6	0.7	85-125%	Med Supp Non-Invasive	4
812	MEDNAX, Inc.	MD	65.98	14%	12%	2	2	0.90	16.7	NIL	20-60%	Medical Services	31
1720	Middleby Corp. (The)	MIDD	83.34	22%	15%	2	3	1.15	18.7	NIL	15-75%	Machinery	37
1975	Monster Beverage	MONS	118.91	42%	15%	2	3	0.85	32.2	NIL	N-45%	Beverage	8
453	Moody's Corp.	MCO	80.03	13%	11%	3	3	1.15	16.2	1.8	30-100%	Information Services	9
2632	Netflix, Inc.	NFLX	86.13	27%	16%	3	3	0.90	NMF	NIL	35-80%	Internet	30
2159	NIKE, Inc. 'B'	NKE	55.68	12%	14%	1	1	0.80	25.3	1.1	15-55%	Shoe	40
1626	Novo Nordisk ADR	NVO	46.58	19%	13%	1	2	0.85	20.5	1.9	50-105%	Drug	35
1928	NutriSystem Inc.	NTRI	18.47	27%	14%	3	3	1.00	17.4	3.8	35-115%	Food Processing	10
325	Old Dominion Freight	ODFL	61.00	18%	12%	3	3	1.05	16.3	NIL	25-80%	Trucking	65
226	Omnicell, Inc.	OMCL	27.47	15%	12%	2	3	1.05	28.0	NIL	45-100%	Med Supp Non-Invasive	4
1817	Open Text Corp.	OTEX	42.85	15%	14%	3	3	0.95	20.8	1.9	40-120%	E-Commerce	22
2128	O'Reilly Automotive	ORLY	236.29	18%	12%	1	2	0.75	24.1	NIL	N-35%	Retail Automotive	18
1630	Perrigo Co. plc	PRGO	138.77	20%	12%	3	3	0.80	15.9	0.4	35-110%	Drug	35
2317	Polaris Inds.	PII	78.17	14%	11%	4	3	1.25	12.3	2.8	80-170%	Recreation	21
2636	Priceline Group (The)	PCLN	991.29	48%	17%	2	3	1.15	15.0	NIL	80-170%	Internet	30
2592	Red Hat, Inc.	RHT	61.60	23%	11%	1	3	1.15	55.5	NIL	40-105%	Computer Software	26
371	Red Robin Gourmet	RRGB	59.51	12%	12%	3	3	1.00	16.2	NIL	35-110%	Restaurant	11
1646	Robert Half Int'l	RHI	38.22	11%	11%	3	2	1.15	12.7	2.2	70-135%	Human Resources	17
408	Rollins, Inc.	ROL	24.88	13%	11%	2	2	0.95	33.2	1.6	N-40%	Industrial Services	38
2220	Ross Stores	ROST	54.53	17%	11%	1	2	0.85	20.7	1.0	N-40%	Retail (Softlines)	75
1575	Royal Gold	RGLD	38.11	17%	13%	4	3	0.90	30.7	2.4	55-150%	Precious Metals	90
1142	Sherwin-Williams	SHW	252.43	11%	13%	2	1	0.90	20.4	1.3	10-35%	Retail Building Supply	2
1381	Skyworks Solutions	SKWS	57.70	20%	20%	3	3	1.40	9.9	1.8	90-185%	Semiconductor	45
313	Southwest Airlines	LUV	35.25	12%	21%	2	3	1.05	9.1	0.9	85-170%	Air Transport	33
1247	Stantec Inc.	STN.TO	31.84	16%	11%	2	3	0.90	15.5	1.3	10-75%	Engineering & Const	80
376	Starbucks Corp.	SBUX	54.42	15%	15%	1	1	0.95	28.6	1.5	40-65%	Restaurant	11
420	Stericycle Inc.	SRCL	106.03	17%	12%	3	2	0.80	21.3	NIL	50-100%	Environmental	62
962	Synaptics	SYNA	71.48	24%	13%	3	3	1.10	9.7	NIL	60-145%	Telecom. Equipment	81
411	SYNNEX Corp.	SNX	85.93	13%	11%	3	3	1.10	12.8	0.9	N-45%	Industrial Services	38
2222	TJX Companies	TJX	69.65	15%	11%	2	1	0.80	19.3	1.2	35-60%	Retail (Softlines)	75
1383	Taiwan Semic. ADR	TSM	22.56	13%	13%	3	2	0.95	12.8	3.2	55-120%	Semiconductor	45
725	TASER Int'l	TASR	15.37	11%	19%	3	4	1.15	66.8	NIL	30-95%	Aerospace/Defense	29
517	Tesoro Corp.	TSO	73.62	16%	14%	2	3	1.30	8.1	2.7	50-130%	Petroleum (Integrated)	87
1144	Tractor Supply	TSCO	81.45	18%	14%	2	2	1.00	24.8	1.1	35-85%	Retail Building Supply	2
817	UnitedHealth Group	UNH	111.16	17%	12%	3	1	0.90	15.6	1.8	15-45%	Medical Services	31
818	Universal Health Sv. 'B'	UHS	105.52	13%	11%	2	3	1.20	14.6	0.4	15-70%	Medical Services	31
2224	Urban Outfitters	URBN	23.59	18%	14%	4	3	0.85	12.4	NIL	135-260%	Retail (Softlines)	75
819	VCA Inc.	WOOF	46.34	12%	14%	2	3	1.05	18.9	NIL	30-95%	Medical Services	31
2117	V.F. Corp.	VFC	56.66	11%	11%	3	2	0.90	16.8	2.6	40-85%	Apparel	60
1733	Walbee Corp.	WAB	60.58	20%	12%	3	3	1.20	13.6	0.5	30-100%	Machinery	37
317	WestJet Airlines Ltd.	WJA.TO	15.48	15%	11%	4	3	0.70	5.0	3.6	95-225%	Air Transport	33
2161	Wolverine World Wide	WWW	16.50	12%	11%	4	3	0.95	10.9	1.5	110-175%	Shoe	40



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AMEREN NYSE-AEE				RECENT PRICE	42.74	P/E RATIO	16.4	(Trailing: 17.4 Median: 15.0)	RELATIVE P/E RATIO	0.93	DIV YLD	4.0%	VALUE LINE						
TIMELINESS	3	Raised 11/20/15	High: 50.4	50.4	56.8	55.2	55.0	54.3	35.3	29.9	34.1	35.3	37.3	48.1	46.8	Target Price Range	2018	2019	2020
SAFETY	2	Raised 6/20/14	Low: 40.6	40.6	47.5	48.0	47.1	25.5	19.5	23.1	25.5	28.4	30.6	35.2	37.3				
TECHNICAL	1	Raised 12/11/15	LEGENDS 0.68 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession												% TOT. RETURN 11/15 THIS STOCK VL ARITH. INDEX 1 yr. 5.7 -2.0 3 yr. 66.4 48.1 5 yr. 92.4 71.2				
BETA	.75	(1.00 = Market)	2018-20 PROJECTIONS Ann'l Total High Price Gain Return Low 35 (-15%) 8% Nil																
Insider Decisions																			
J F M A M J J A S to Buy 0 0 0 0 0 0 0 0 0 Options 0 0 0 0 0 0 0 0 0 to Sell 0 0 0 0 0 0 0 0 0																			
Institutional Decisions																			
1Q2015 2Q2015 3Q2015 to Buy 174 175 189 to Sell 212 202 190 Hld's(000) 180314 158124 159419																			
Percent shares traded																			
15 10 5																			
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016												VALUE LINE PUB. LLC 18-20							
25.68 28.10 32.64 24.93 28.20 26.43 33.12 33.30 36.23 36.92 29.87 31.77 31.04 28.14 24.06 24.95 25.35 26.15												Revenues per sh 30.00							
5.36 6.11 6.33 5.28 6.29 5.57 6.10 6.02 6.76 6.44 6.06 6.33 5.87 5.87 5.25 5.77 6.05 6.55												"Cash Flow" per sh 8.00							
2.81 3.33 3.41 2.66 3.14 2.82 3.13 2.66 2.98 2.88 2.78 2.77 2.47 2.41 2.10 2.40 2.45 2.75												Earnings per sh A 3.50							
2.54 2.54 2.54 2.54 2.54 2.54 2.54 2.54 2.54 2.54 1.54 1.54 1.56 1.60 1.60 1.61 1.66 1.72												Div'd Decl'd per sh B 1.95							
4.16 6.77 7.99 5.11 4.19 4.13 4.63 4.99 6.96 9.75 7.51 4.66 4.50 5.49 5.87 7.66 8.10 7.15												Cap'l Spending per sh 7.25							
22.52 23.30 24.26 24.93 26.73 29.71 31.09 31.86 32.41 32.80 33.08 32.15 32.64 27.27 26.97 27.67 28.70 29.75												Book Value per sh C 34.00							
137.22 137.22 138.05 154.10 162.90 195.20 204.70 206.60 208.30 212.30 237.40 240.40 242.60 242.63 242.63 242.63 242.63 242.63												Common Shs Outst'g D 242.63							
13.5 11.0 12.1 15.8 13.5 16.3 16.7 19.4 17.4 14.2 9.3 9.7 11.9 13.4 16.5 16.7 16.7 16.7												Avg Ann'l P/E Ratio 12.5							
.77 .72 .62 .86 .77 .86 .89 1.05 .92 .85 .62 .62 .75 .85 .93 .88 .88 .88												Relative P/E Ratio .80							
6.7% 6.9% 6.2% 6.1% 6.0% 5.5% 4.9% 4.9% 4.9% 6.2% 6.0% 5.8% 5.3% 5.0% 4.6% 4.0% 4.0% 4.5%												Avg Ann'l Div'd Yield 4.5%							
CAPITAL STRUCTURE as of 9/30/15 Total Debt \$7159 mill. Due in 5 Yrs \$3400 mill. LT Debt \$5981 mill. LT Interest \$315 mill. (LT interest earned: 4.2x) Leases, Uncapitalized Annual rentals \$13 mill. Pension Assets-12/14 \$3794 mill. Oblig. \$4410 mill. Pfd Stock \$142 mill. Pfd Div'd \$6 mill. 807,595 sh. \$3.50 to \$5.50 cum. (no par), \$100 stated val., redeem. \$102.176-\$110/sh.; 616,323 sh. 4.00% to 6.625%, \$100 par, redeem. \$100-\$104/sh. Common Stock 242,634,798 shs. as of 10/30/15 MARKET CAP: \$10.4 billion (Large Cap)												2012 2013 2014 6780.0 6880.0 7546.0 7839.0 7090.0 7638.0 7531.0 6828.0 5838.0 6053.0 6150 6350 Revenues (\$mill) 7250							
												628.0 547.0 629.0 615.0 624.0 669.0 602.0 589.0 518.0 593.0 605 675 Net Profit (\$mill) 860							
												35.6% 32.7% 33.5% 33.7% 34.7% 36.8% 37.3% 36.9% 37.5% 38.9% 38.0% 38.5% Income Tax Rate 36.5%							
												2.9% .7% .8% 4.6% 5.8% 7.8% 5.6% 6.1% 7.1% 5.7% 4.0% 4.0% AFUDC % to Net Profit 3.0%							
												44.9% 43.8% 45.0% 47.8% 49.7% 48.2% 45.3% 49.5% 45.2% 47.2% 49.5% 47.5% Long-Term Debt Ratio 46.5%							
												53.3% 54.6% 53.4% 50.8% 49.1% 50.9% 53.7% 49.4% 53.7% 51.7% 49.5% 51.5% Common Equity Ratio 52.5%							
												11932 12063 12654 13712 15991 15185 14738 13384 12190 12975 14025 13975 Total Capital (\$mill) 15700							
												13572 14286 15069 16567 17610 17853 18127 16096 16205 17424 18525 19325 Net Plant (\$mill) 21400							
												6.5% 5.7% 6.2% 5.7% 5.3% 6.0% 5.6% 6.0% 5.6% 5.8% 5.5% 6.0% Return on Total Cap'l 6.5%							
												9.5% 8.1% 9.0% 8.6% 7.8% 8.5% 7.5% 8.7% 7.7% 8.7% 8.5% 9.0% Return on Shr. Equity 10.0%							
												9.7% 8.1% 9.2% 8.7% 7.8% 8.6% 7.5% 8.8% 7.8% 8.7% 8.5% 9.5% Return on Com Equity E 10.5%							
												1.7% .2% 1.3% 1.0% 3.5% 3.8% 2.8% 3.0% 1.9% 2.9% 3.0% 3.5% Retained to Com Eq 4.5%							
												83% 97% 86% 88% 56% 56% 63% 66% 76% 67% 67% 62% All Div'ds to Net Prof 56%							
ELECTRIC OPERATING STATISTICS												BUSINESS: Ameren Corp. is a holding company formed through the merger of Union Electric and CIPSCO. Acquired CILCORP 1/03; Illinois Power 10/04. Has 1.2 mill. electric and 127,000 gas customers in Missouri; 1.2 mill. electric and 813,000 gas customers in Illinois. Discontinued power-generation operation in '13. Electric rev. breakdown: residential, 45%; commercial, 33%; industrial, 12%; other, 10%. Generating sources: coal, 74%; nuclear, 21%; hydro, 2%; purchased, 3%. Fuel costs: 31% of revs. '14 reported deprec. rates: 3%-4%. Has 8,500 employees. Chairman, President & CEO: Warner L. Baxter, Inc. MO. Address: One Ameren Plaza, 1901 Chouteau Ave., P.O. Box 66149, St. Louis, MO 63166-6149. Tel.: 314-621-3222. Internet: www.ameren.com.							
2012 2013 2014												12%; other, 10%. Generating sources: coal, 74%; nuclear, 21%; hydro, 2%; purchased, 3%. Fuel costs: 31% of revs. '14 reported deprec. rates: 3%-4%. Has 8,500 employees. Chairman, President & CEO: Warner L. Baxter, Inc. MO. Address: One Ameren Plaza, 1901 Chouteau Ave., P.O. Box 66149, St. Louis, MO 63166-6149. Tel.: 314-621-3222. Internet: www.ameren.com.							
% Change Retail Sales (KWH) -7 -5 -1												Ameren is benefiting from capital spending on electric transmission (see below).							
Avg. Indust. Use (KWH) N/A N/A N/A												Electric transmission is a key area of investment for Ameren. The company expects to spend \$2.3 billion on federally regulated transmission projects for the five-year period through 2019. This is one factor behind the strong profit growth we expect in 2016 and beyond. Investors should note, however, that transmission companies in the region are facing two complaints with the Federal Energy Regulatory Commission that allowed return on equity are too high. These won't be resolved until 2016 and 2017.							
Avg. Indust. Revs. per KWH (\$) 4.30 5.41 5.46												The board of directors raised the dividend in the fourth quarter. The increase was \$0.015 (3.7%) a share quarterly. This is slightly more than we had estimated.							
Capacity at Peak (Mw) N/A N/A N/A												The dividend yield and 3- to 5-year total return potential of Ameren stock are roughly equivalent to the averages for the electric utility industry. Like many utility issues, the stock is trading near the midpoint of our 2018-2020 Target Price Range.							
Peak Load, Summer (Mw) N/A N/A N/A												Paul E. Debbas, CFA December 18, 2015							
Annual Load Factor (%) N/A N/A N/A																			
% Change Customers (yr-end) N/A N/A N/A																			
Fixed Charge Cov. (%) 291 289 355																			
ANNUAL RATES of change (per sh)																			
Past 10 Yrs. Past 5 Yrs. Est'd '12-'14																			
Revenues -5.5% -5.5% 2.5%																			
"Cash Flow" - - -2.5% 6.0%																			
Earnings -2.0% -4.5% 7.0%																			
Dividends -4.5% -6.0% 3.5%																			
Book Value - - -3.5% 3.5%																			
QUARTERLY REVENUES (\$mill.)																			
Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			
2012 1658 1660 2001 1509 6828.0																			
2013 1475 1403 1638 1322 5838.0																			
2014 1594 1419 1670 1370 6053.0																			
2015 1556 1401 1833 1360 6150																			
2016 1600 1500 1850 1460 6350																			
EARNINGS PER SHARE A																			
Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			
2012 d.11 .87 1.54 .11 2.41																			
2013 .22 .44 1.25 .19 2.10																			
2014 .40 .62 1.20 .19 2.40																			
2015 .45 .40 1.41 .19 2.45																			
2016 .40 .60 1.45 .30 2.75																			
QUARTERLY DIVIDENDS PAID B																			
Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			
2011 .385 .385 .385 .40 1.56																			
2012 .40 .40 .40 .40 1.60																			
2013 .40 .40 .40 .40 1.60																			
2014 .40 .40 .40 .41 1.61																			
2015 .41 .41 .41 .425																			

(A) Diluted EPS. Excl. nonrecurr. gain (losses): '05, (.11); '10, (\$2.19); '11, (.32); '12, (\$6.42); gain (loss) from disc. ops.: '13, (.92); '15, 21¢. '14 EPS don't add due to rounding. Next gets

report due mid-Feb. (B) Div'ds historic, paid in late Mar., June, Sept., & Dec. (C) Div'd reinvest. plan avail. (D) Incl. Intang. in '14: \$8.21/sh. (E) In mill. (F) Rate base: Orig. cost deprec.

Rate allowed on com. eq. in MO in '15: 9.53% elec., in '11: none spec. gas; in IL in '14: 6.7% elec., 9.06% gas; earned on avg. com. eq.: '14: 8.9%. Reg. Clim.: MO, Avg.; IL, Below Avg.

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AMERICAN ELEC. PWR. NYSE-AEP										RECENT PRICE	55.88	P/E RATIO	15.8 (Trailing: 15.4 Median: 13.0)	RELATIVE P/E RATIO	0.90	DIV'D YLD	4.1%	VALUE LINE
TIMELINESS	3	Lowered 6/12/15	High	35.5	40.8	43.1	51.2	49.1	36.5	37.9	41.7	45.4	51.6	63.2	65.4			Target Price Range
SAFETY	2	Raised 9/19/14	Low	28.5	32.3	32.3	41.7	25.5	24.0	28.2	33.1	37.0	41.8	45.8	52.3			2018 2019 2020
TECHNICAL	2	Raised 12/18/15	LEGENDS 0.73 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession															
BETA	.70	(1.00 = Market)	2018-20 PROJECTIONS															
			Price	Gain	Ann'l Total													
			High	70	(+2.5%)	Return												
			Low	60	(-1.0%)	10%												

ALLETE NYSE:ALE			RECENT PRICE	50.15	P/E RATIO	14.2	(Trailing: 15.3 Median: 16.0)	RELATIVE P/E RATIO	0.81	DIV'D YLD	4.1%	VALUE LINE																	
TIMELINESS	3	Raised 4/24/15	High: 37.5	51.7	49.3	51.3	49.0	35.3	37.9	42.5	42.7	54.1	58.0	59.7	Target Price	Range													
SAFETY	2	New 10/1/04	Low: 30.8	35.7	42.6	38.2	28.3	23.3	30.0	35.1	37.7	41.4	44.2	45.3	2018	2019	2020												
TECHNICAL	2	Raised 12/18/15	LEGENDS 0.76 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																										
BETA	.80	(1.00 = Market)	2018-20 PROJECTIONS																										
			Price	Gain	Return																								
			High	60	(+20%)	9%																							
			Low	45	(-10%)	2%																							
			Insider Decisions																										
			J	F	M	A	M	J	J	A	S																		
			to Buy	0	0	0	0	0	0	0	0																		
			Options	0	0	1	0	0	0	0	1																		
			to Sell	0	1	2	1	1	1	0	3																		
			Institutional Decisions																										
			1Q2015	2Q2015	3Q2015																								
			to Buy	117	117	90																							
			to Sell	77	79	100																							
			Hds(000)	33487	35643	35552																							
			Percent shares traded																										
			10	10	10																								
			5	5	5																								
			© VALUE LINE PUBL. LLC 18-20																										
1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Revenues per sh		33.50									
--	--	--	--	--	25.30	24.50	25.23	27.33	24.57	21.57	25.34	24.75	24.40	24.60	24.77	30.60	28.45	28.45	"Cash Flow" per sh	7.75									
--	--	--	--	--	2.97	3.85	4.14	4.42	4.23	3.57	4.35	4.91	5.01	5.35	5.68	6.50	6.40	6.40	Earnings per sh <sup>A</sup>	4.00									
--	--	--	--	--	1.35	2.48	2.77	3.08	2.82	1.89	2.19	2.65	2.58	2.63	2.90	3.50	3.20	3.20	Div'd Decl'd per sh <sup>B</sup> = †	2.30									
--	--	--	--	--	.30	1.25	1.45	1.64	1.72	1.76	1.76	1.78	1.84	1.90	1.96	2.02	2.08	2.08	Cap'l Spending per sh	5.50									
--	--	--	--	--	2.12	1.95	3.37	6.82	9.24	9.05	6.95	6.38	10.30	7.93	12.48	5.70	4.75	4.75	Book Value per sh <sup>C</sup>	43.50									
--	--	--	--	--	21.23	20.03	21.90	24.11	25.37	26.41	27.26	28.78	30.48	32.44	35.06	37.50	38.70	38.70	Common Shs Outst'g <sup>D</sup>	50.00									
--	--	--	--	--	29.70	30.10	30.40	30.80	32.60	35.20	35.80	37.50	39.40	41.40	45.90	49.00	49.25	49.25	Avg Ann'l P/E Ratio	13.0									
--	--	--	--	--	25.2	17.9	16.5	14.8	13.9	16.1	16.0	14.7	15.9	18.6	17.2	17.2	17.2	17.2	Relative P/E Ratio	.80									
--	--	--	--	--	1.33	.95	.89	.79	.84	1.07	1.02	.92	1.01	1.05	.91	.91	.91	.91	Avg Ann'l Div'd Yield	4.5%									
--	--	--	--	--	.9%	2.8%	3.2%	3.6%	4.4%	5.8%	5.0%	4.6%	4.5%	3.9%	3.9%	3.9%	3.9%	3.9%											
CAPITAL STRUCTURE as of 9/30/15																													
Total Debt \$1598.1 mill. Due in 5 Yrs \$411.9 mill.																			Revenues (\$mill)	1675									
LT Debt \$1549.0 mill. LT Interest \$64.4 mill.																			Net Profit (\$mill)	195									
(LT interest earned: 4.0x)																			Income Tax Rate	20.0%									
Leases, Uncapitalized Annual rentals \$13.4 mill.																			AFUDC % to Net Profit	2.0%									
Pension Assets-12/14 \$544.2 mill.																			Long-Term Debt Ratio	41.0%									
Oblig. \$714.5 mill.																			Common Equity Ratio	59.0%									
Pfd Stock None																			Total Capital (\$mill)	3675									
Common Stock 48,965,562 shs.																			Net Plant (\$mill)	4075									
MARKET CAP: \$2.6 billion (Mid Cap)																			Return on Total Cap'l	6.5%									
ELECTRIC OPERATING STATISTICS																			Return on Shr. Equity	9.0%									
2012 2013 2014																			Return on Com Equity <sup>E</sup>	9.0%									
% Change Retail Sales (KWH)																			Retained to Com Eq	3.5%									
+1.1 -1.1 +5																			All Div's to Net Prof	59%									
Avg. Indust. Use (MWH)																													
N/A N/A N/A																													
Avg. Indust. Revs. per KWH (¢)																													
5.24 5.45 6.09																													
Capacity at Peak (Mw)																													
1790 1793 1985																													
Peak Load Winter (Mw) F																													
1633 1646 1637																													
Annual Load Factor (%)																													
79.0 N/A N/A																													
% Change Outcomes (ag)																													
+5 N/A N/A																													
Fixed Charge Cox (%)																													
341 306 345																													
ANNUAL RATES																													
Past 10 Yrs. Past 5 Yrs. Est'd '12-'14 of change (per sh)																													
Revenues -5.5% - - 5.5%																													
"Cash Flow" 6.0% 5.5% 6.5%																													
Earnings 7.0% 1.0% 6.5%																													
Dividends NMF 2.0% 3.0%																													
Book Value 4.5% 5.0% 5.0%																													
Cal-endar	QUARTERLY REVENUES (\$ mill.)					Full Year																							
	Mar.31	Jun.30	Sep.30	Dec.31																									
2012	240.0	216.4	248.8	256.0	961.2																								
2013	263.8	235.6	251.0	268.0	1018.4																								
2014	296.5	260.7	288.9	290.7	1136.8																								
2015	320.0	323.3	462.5	394.2	1500																								
2016	345	340	360	355	1400																								
Cal-endar	EARNINGS PER SHARE <sup>A</sup>					Full Year																							
	Mar.31	Jun.30	Sep.30	Dec.31																									
2012	.66	.39	.78	.75	2.58																								
2013	.83	.35	.63	.82	2.63																								
2014	.80	.40	.97	.73	2.90																								
2015	.85	.46	1.23	.96	3.50																								
2016	.90	.45	1.00	.85	3.20																								
Cal-endar	QUARTERLY DIVIDENDS PAID <sup>B</sup> = †					Full Year																							
	Mar.31	Jun.30	Sep.30	Dec.31																									
2011	.445	.445	.445	.445	1.78																								
2012	.46	.46	.46	.46	1.84																								
2013	.475	.475	.475	.475	1.90																								
2014	.49	.49	.49	.49	1.96																								
2015	.505	.505	.505	.505																									

**ALLETE's earnings will almost certainly wind up significantly higher in 2015, thanks to a development fee for the construction of a wind project.** The company's ALLETE Clean Energy subsidiary is building a wind project that it is selling to a utility in North Dakota. The company booked a progress payment that boosted profits by \$0.25 a share in the third quarter, and the final payment should add another \$0.12 a share or so in the December period. Because the project management has been even stronger than expected, and Minnesota Power (ALLETE's main utility subsidiary) has cut expenses through a cost-reduction program, management raised its share-earnings target for the year from \$3.20-\$3.40 to \$3.35-\$3.50. We have raised our share-net estimate by \$0.20, so it now stands at the upper end of the company's guidance.

**We think earnings will decline in 2016.** The comparisons will be difficult in the second half of the year because of the boost provided by the aforementioned wind project fees. In addition, activity by Minnesota Power's taconite customers has

waned. (Taconite is used in steelmaking.) These large electricity users had been running at full capacity for the past several years, but are now expecting 80% of full-demand levels for the first four months of 2016. The utility might be able to make up for part of the shortfall through additional wholesale power sales. The one positive factor for the year-to-year comparisons is that the company's purchase of U.S. Water, which provides water management services to industrial customers, should be more accretive to income next year once some amortizations cease after the first quarter. Our earnings estimate is within ALLETE's targeted range of \$3.10-\$3.40 a share.

**We think the board of directors will raise the annual dividend by \$0.06 a share (3.0%) in the first period of 2016.** This has been the pattern in recent years. ALLETE is targeting a payout ratio in a range of 60%-65%.

**This stock's dividend yield is slightly above the utility mean.** Total return potential to 2018-2020 is only average for the group, however.

Paul E. Debbas, CFA  
December 18, 2015



(A) Dil. EPS. Excl. nonrec. gain (losses): '02, (9¢); '03, (3¢); '14, 9¢; gains (losses) on disc. ops: '03, '04, '11, (\$1.00); '02, 2¢; '03, (10¢); '14, \$1.17. '13 & '14 EPS don't add due to rounding		or chg. in shs. Next egs. due mid-Feb. (B) Div'd paid in mid-Mar, June, Sept. & Dec. Div'd reinv. plan-avail. (C) Incl. def. egs. in '14: \$9.70/sh. (D) In mill. (E) Rate base: Net		orig. cost. Rate all'd on com. eq. in WA in '16: 9.5%; in ID in '16: 9.5%; in OR in '15: 9.5%; earn. on avg. com. eq., '14: 8.2%; Reg. Cline: WA, Avg.; ID, Above Avg. (F) Summer pk. '12.		Company's Financial Strength	A
						Stock's Price Stability	B
						Price Growth Persistence	60
						Earnings Predictability	80
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To subscribe call 1-800-VALUELINE							

CMS ENERGY CORP. NYSE-CMS										RECENT PRICE	P/E RATIO 18.1 (Trailing: 19.0 Median: 15.0)			RELATIVE P/E RATIO 1.03	DIV'D YLD 3.5%	VALUE LINE						
TIMELINESS 3 Lowered 6/19/15	SAFETY 2 Raised 3/21/14	TECHNICAL 2 Raised 12/11/15	BETA .75 (1.00 = Market)	<div>High: 10.6 16.8 17.0 19.5 17.5 16.1 19.3 22.4 25.0 30.0 36.9 38.7</div> <div>Low: 7.8 9.7 12.1 15.0 8.3 10.0 14.1 17.0 21.1 24.6 26.0 31.2</div> <div>LEGENDS</div> <div>0.80 x Dividends p sh divided by Interest Rate</div> <div>Relative Price Strength</div> <div>Options: Yes</div> <div>Shaded area indicates recession</div>										Target Price Range 2018 2019 2020								
2018-20 PROJECTIONS				<div>Price Gain Ann'l Total</div> <div>High Low 40 30 (+15%) (-15%) 7% 1%</div> <div>Insider Decisions</div> <div>J F M A M J J A S</div> <div>to Buy 0 1 0 0 0 0 0 0 0</div> <div>Options 0 0 0 0 0 0 0 0 0</div> <div>to Sell 0 0 0 1 1 0 0 0 0</div> <div>Institutional Decisions</div> <div>1Q2015 2Q2015 3Q2015</div> <div>to Buy 186 189 196</div> <div>to Sell 218 201 192</div> <div>Hds(000) 242233 241406 251511</div> <div>Percent shares traded 30 20 10</div> <div>% TOT. RETURN 11/15</div> <div>THIS STOCK 9.4</div> <div>VL ARITH. INDEX -2.0</div> <div>1 yr. 59.4</div> <div>3 yr. 48.1</div> <div>5 yr. 71.2</div>																		
1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	© VALUE LINE PUB. LLC 18-20				
52.59	74.24	72.16	60.28	34.21	28.06	28.52	30.57	28.95	30.13	27.23	25.77	25.59	23.90	24.68	26.09	23.65	23.85	Revenues per sh	26.25			
7.87	7.61	5.24	d.09	2.39	2.87	3.43	3.22	3.08	3.88	3.47	3.70	3.65	3.82	4.06	4.22	4.55	4.90	"Cash Flow" per sh	5.75			
2.85	2.53	1.27	d2.99	d.29	.74	1.10	.64	.64	1.23	.93	1.33	1.45	1.53	1.66	1.74	1.88	2.00	Earnings per sh A	2.25			
1.39	1.46	1.46	1.09	--	--	--	--	.20	.36	.50	.66	.84	.96	1.02	1.08	1.16	1.24	Div'd Decl'd per sh B	1.50			
9.69	8.51	9.49	5.18	3.32	2.69	2.69	3.01	5.61	3.50	3.59	3.29	3.47	4.65	4.98	5.73	5.85	5.80	Cap'l Spending per sh	5.50			
21.17	19.48	14.21	7.86	9.84	10.63	10.53	10.03	9.46	10.88	11.42	11.19	11.92	12.09	12.98	13.34	14.15	15.05	Book Value per sh C	17.75			
116.04	121.20	132.99	144.10	161.13	195.00	220.50	222.78	225.15	226.41	227.89	249.60	254.10	264.10	266.10	275.20	277.00	279.00	Common Shs Outst'g D	285.00			
13.9	9.6	20.8	--	--	12.4	12.6	22.2	26.8	10.9	13.6	12.5	13.6	15.1	16.3	17.3	16.3	17.3	Avg Ann'l P/E Ratio	15.0			
.79	.62	1.07	--	--	.66	.67	1.20	1.42	.66	.91	.80	.85	.96	.92	.91	.91	.91	Relative P/E Ratio	.95			
3.5%	6.0%	5.5%	7.5%	--	--	--	--	1.2%	2.7%	4.0%	4.0%	4.3%	4.2%	3.8%	3.6%	3.5%	3.5%	Avg Ann'l Div'd Yield	4.5%			
CAPITAL STRUCTURE as of 9/30/15										BUSINESS: CMS Energy Corporation is a holding company for Consumers Energy, which supplies electricity and gas to lower Michigan (excluding Detroit). Has 1.8 million electric, 1.7 million gas customers. Has 1,034 megawatts of nonregulated generating capacity. Sold Palisades nuclear plant in '07. Electric revenue breakdown: residential, 43%; commercial, 31%; industrial, 19%; other, 7%. Generating sources: coal, 44%; gas, 6%; other, 1%; purchased, 49%. Fuel costs: 54% of revenues. '14 reported deprec. rates: 3.5% electric, 2.8% gas, 7.7% other. Has 7,700 employees. Chairman: David W. Joos. President & CEO: John G. Russell. Incorporated: Michigan. Address: One Energy Plaza, Jackson, Michigan 49201. Tel.: 517-788-0550. Internet: www.cmsenergy.com.												
Total Debt \$8823 mill. Due in 5 Yrs \$4055 mill.										6288.0 6810.0 6519.0 6821.0 6205.0 6432.0 6503.0 6312.0 6568.0 7179.0 6550 6650 6650 6650										Revenues (\$mill)		7500
LT Debt \$8014 mill. LT Interest \$365 mill.										247.0 158.0 168.0 300.0 231.0 356.0 384.0 413.0 454.0 479.0 530 575 575 575										Net Profit (\$mill)		690
Incl. \$111 mill. capitalized leases.										25.6% -- 37.6% 31.6% 34.6% 38.1% 36.8% 39.4% 39.9% 34.3% 38.5% 38.5% 38.5%										Income Tax Rate		38.5%
(LT interest earned: 3.0x)										15.4% 6.3% 3.6% 1.3% 13.0% 2.2% 2.6% 2.9% 2.0% 2.3% 2.0% 2.0%										AFUDC % to Net Profit		1.0%
Leases, Uncapitalized Annual rentals \$25 mill.										73.5% 71.7% 70.5% 69.4% 67.9% 70.1% 66.9% 67.9% 67.5% 68.7% 67.0% 66.0%										Long-Term Debt Ratio		65.0%
Pension Assets-12/14 \$1979 mill.										23.4% 24.9% 25.9% 27.4% 29.0% 29.5% 32.6% 31.6% 32.2% 31.0% 33.0% 33.5%										Common Equity Ratio		35.0%
Oblig. \$2547 mill.										9913.0 8961.0 8212.0 8993.0 8977.0 9473.0 9279.0 10101 10730 11846 11950 12525 12525										Total Capital (\$mill)		14600
Pfd Stock \$37 mill. Pfd Div'd \$2 mill.										7845.0 7976.0 8728.0 9190.0 9682.0 10069 10633 11551 12246 13412 14300 15125 15125										Net Plant (\$mill)		16800
Incl. 373,148 shs. \$4.50 \$100 par, cum., callable at \$110.00.										5.0% 4.5% 4.5% 5.4% 4.7% 5.8% 6.3% 5.9% 6.0% 5.7% 6.0%										Return on Total Cap'l		6.0%
Common Stock 277,100,000 shs.										9.4% 6.2% 6.9% 10.9% 8.0% 12.5% 12.5% 12.8% 13.0% 12.9% 13.5%										Return on Shr. Equity		13.5%
MARKET CAP: \$9.8 billion (Large Cap)										9.9% 6.4% 7.2% 11.7% 8.5% 12.5% 12.6% 12.9% 13.1% 13.0% 13.5%										Return on Com Equity E		13.5%
ELECTRIC OPERATING STATISTICS										9.9% 6.4% 5.1% 8.4% 4.1% 6.9% 5.6% 5.0%										Retained to Com Eq		5.0%
2012 2013 2014										6% 10% 35% 31% 54% 46% 55% 61%										All Div'ds to Net Prof		62%
% Change Retail Sales (KWH)																						
+ 6 -3.1 +1.9																						
Avg. Indust. Use (MWH)																						
1113 1000 1125																						
Avg. Indust. Revs. per KWH (\$)																						
8.06 8.93 8.79																						
Capacity at Peak (Mw)																						
8607 8603 8776																						
Peak Load, Summer (Mw)																						
9006 8509 7498																						
Annual Load Factor (%)																						
48.7 50.0 59.7																						
% Change Customers (yr-end)																						
-- +.1 --																						
Fixed Charge Cov. (%)																						
268 282 278																						
ANNUAL RATES										BUSINESS: CMS Energy's utility subsidiary was granted an electric rate increase. The Michigan Public Service Commission (MPSC) raised Consumers Energy's electric rates by \$165 million, effective at the start of December. The ruling enabled the utility to place a 540-megawatt gas-fired plant, which it bought for \$154.5 million, in the rate base. This tariff increase will go down to \$126 million on April 15th, when the company retires seven coal-fired units. The allowed return on equity remains 10.3%. Consumers Energy had asked for mechanisms that decouple electric revenues and volume and automatically recover certain investments, but was turned down by the MPSC.										established a goal of 5%-7% annual profit growth. We think it will slightly beat the target this year. Our estimate of \$1.88 a share is at the midpoint of management's typically narrow guidance of \$1.87-\$1.89 a share. We forecast that the bottom line will rise 6% in 2016. Our estimate is within the company's targeted range of \$1.97-\$2.01 a share. We won't be surprised if CMS raises its annual earnings-growth target within the next few years.		
of change (per sh)										A gas rate case is pending. Consumers Energy requested a hike of \$85 million, based on a 10.7% ROE. The MPSC's staff is recommending a raise of just \$19 million, based on a 10% ROE. The utility will self-implement an interim increase in early 2016, with the final ruling due in July.										We expect a dividend increase in early 2016. This has been the pattern since the board of directors restored a disbursement several years ago. We estimate that the quarterly payout will be raised by \$0.02 a share (6.9%).		
Past 10 Yrs. Past 5 Yrs. Est'd '12-'14 to '18-'20										Earnings are advancing steadily. The company benefits from capital investment that is eventually recovered in rates. Effective cost control is a plus. CMS has es-										The utility is awaiting a new state regulatory law. This would probably bring Michigan a step closer to traditional utility regulation. Today, users amounting to up to 10% of a utility's load are allowed to buy power from an alternative supplier.		
Revenues -5.0% -3.0% 1.0%																				CMS Energy's strengths are reflected in the share price. The dividend yield is a bit below average for a utility, and 3- to 5-year total return potential is unexciting.		
"Cash Flow" 9.0% 3.0% 6.0%																				Paul E. Debbas, CFA December 18, 2015		
Earnings -- 12.0% 5.5%																						
Dividends -- 23.5% 6.5%																						
Book Value 3.0% 4.0% 5.5%																						
QUARTERLY REVENUES (\$ mill.)																						
Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year																						
2012 1802 1333 1507 1670 6312.0																						
2013 1979 1406 1445 1736 6566.0																						
2014 2523 1468 1430 1758 7179.0																						
2015 2111 1350 1486 1603 6550																						
2016 2100 1400 1500 1650 6650																						
EARNINGS PER SHARE A																						
Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year																						
2012 .36 .37 .55 .25 1.53																						
2013 .53 .29 .46 .37 1.66																						
2014 .75 .30 .34 .35 1.74																						
2015 .73 .25 .53 .37 1.88																						
2016 .70 .35 .55 .40 2.00																						
QUARTERLY DIVIDENDS PAID B																						
Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year																						
2011 .21 .21 .21 .21 .84																						
2012 .24 .24 .24 .24 .96																						
2013 .255 .255 .255 .255 1.02																						
2014 .27 .27 .27 .27 1.08																						
2015 .29 .29 .29 .29																						

(A) Diluted EPS. Excl. nonrec. gains (losses): '05, (\$1.61); '06, (\$1.08); '07, (\$1.26); '09, (7¢); '10, 3¢; '11, 12¢; '12, (14¢); gains (losses) on disc. ops.: '05, 7¢; '06, 3¢; '07, (40¢); '09, 8¢; '10, (8¢); '11, 1¢; '12, 3¢. '13 EPS don't add due to rounding. Next earnings report due early Feb. (B) Div'ds historically paid late Feb., May, Aug., & Nov. = Div'd reinvestment plan avail. (C) Incl. intang. In '14: \$7.11/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in '15: 10.3%; earned on avg. com. eq., '14: 13.4%. Regulatory Climate: Average.

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Summary: Text -Workpaper of Adrien McKenzie of Ohio Power Company Part 2 electronically filed by Mr. Steven T Nourse on behalf of Ohio Power Company