In the Matter of the Application of The S&T Telephone Cooperative, Inc. for an Increase in its Cost-Based Kansas Universal Service Fund Support	**DOCKET NO. 14-S&TT-525-KSF**

DIRECT TESTIMONY

OF

ADAM H. GATEWOOD

ON BEHALF OF

THE KANSAS CORPORATION COMMISSION

OF THE STATE OF KANSAS

Q Please state your name and business address.

A Adam H. Gatewood, 1500 Arrowhead Road, Topeka, Kansas 66604.

Q Who is your employer and what is your title?

A I am the Managing Financial Analyst for the Kansas Corporation Commission (Commission).

Q What is your educational and professional background?

A I graduated from Washburn University with a B.A. in Economics in 1987 and a Masters of Business Administration in 1996. I have filed testimony on cost of capital, capital structure, and related issues before the Commission in more than 115 proceedings. I have also filed testimony before the Federal Energy Regulatory Commission.

Q What is the purpose of your testimony?

A My testimony provides the Commission with an estimate of S&T Telephone Cooperative, Inc.'s (S&T) cost of equity, cost of debt, and rate of return that Staff used in setting S&T's revenue requirement and ultimately determines the support payment from the Kansas Universal Service Fund (KUSF). In doing so, I evaluate S&T's requested rate of return presented in its Application filed in September of 2013.

Q Describe the Appendices and Schedules attached to your Testimony.

A Appendices attached to my Testimony:

Appendix A:	The standards used to evaluate a reasonable rate of return;
Appendix B:	A discussion of the theory and mechanics of the discounted cash flow (DCF) model; and
Appendix C:	A discussion of the theory and mechanics of the capital asset pricing model (CAPM).

Schedules attached to my Testimony:

Schedule AHG-1:	Value-Line Investment Survey Economic Forecast and J.P. Morgan Long-Term Capital Market Return Assumptions (2014)
Schedule AHG-2:	Value-Line Proxy Company Reports
Schedule AHG-3:	Proxy Company Business Descriptions from ThomsonFN (YahooFinance)
Schedule AHG-4:	Value-Line Growth Forecasts, ThomsonFN Growth Forecasts and Stock Price Data

SUMMARY OF FINDINGS

Q Please summarize your findings and recommendations.

A Staff and S&T disagree on the cost of equity capital. Staff and S&T agree on the cost of debt and the capital structure. I am recommending a 7.10% rate of return (ROR) for S&T based on the elements in the following table.

Rate of Return for S&T Telephone Cooperative Proposed by Staff

	1 Capital Ratio	2 Cost of Capital	3 Weighted Cost
Long-term Debt	45.14%	3.87%	1.75%
Common Equity	54.86%	9.75%	5.35%
		Rate of Return	7.10%

1) capitalization ratios of consolidated capital structure
2) Staff's recommended cost of capital
3) column 1 x column 2

Q Please describe S&T's ROR request.

A S&T calculated its revenue requirement using an ROR of 8.60% as detailed in the following table.

Rate of Return Proposed by S&T Telephone Cooperative

	1 Capital Ratio	2 Cost of Capital	3 Weighted Cost
Long-term Debt	45.14%	3.87%	1.75%
Common Equity	54.86%	12.50%	6.86%
		Rate of Return	8.60%

Source: Application, Section 7

Q How does your recommendation in this Docket compare to those in recent KUSF Dockets?

A This table contains the KUSF Dockets of the past two years. Staff's

recommendations have been in the range of 9.75% to 10.50%. In a fully litigated Docket, the Commission adopted Staff's recommendation of a 10.00% return on equity for La Harpe Telephone Company in Docket 12-LHPT-875-AUD.

Staff Positions in Recent KUSF Dockets

Testimony Date	Equity Ratio	Staff ROE	Company	Docket
10/18/2012	29.69%	10.50%	Gorham Telephone Company	12-GRHT-633-KSF
12/19/2012	90.00%	10.00%	LaHarpe Telephone Company	12-LHPT-875-AUD
3/13/2013	60.00%	10.00%	Craw-Kan Telephone Cooperative, Inc.	13-CRKT-268-KSF
5/17/2013	Confidential	10.00%	Zenda Telephone Company, Inc.	13-ZENT-065-AUD
5/23/2013	46.50%	9.75%	J.B.N. Telephone Company, Inc.	13-JBNT-437-KSF
9/24/2013	55.83%	9.75%	Peoples Telecommunications, LLC	13-PLTT-678-KSF
2/5/2014	61.43%	9.75%	Wamego Telecommunications Co.	14-WTCT-142-KSF
9/25/2014	54.86%	9.75%	S&T Telephone Cooperative, Inc.	14-S&TT-525-KSF

My recommendation for S&T is based on my review of the capital markets at this point in time. The analysis and testimony I am filing in this Docket is similar to the cost of equity analyses I have filed in KUSF Dockets since the Financial Crisis; the data and inputs are reviewed and updated for each docket.

Capital Structure

Q Has Staff reviewed the capital structure proposed by S&T?

A Yes, I reviewed the capital structure proposed by S&T in the Application and the capital accounts data reported in S&T's audited financial statements. The capital structure proposed by S&T of 54.86% equity and 45.14% debt is reasonable for setting its revenue requirement as it is a balanced capital structure consistent with traditional, rate of return regulated public utility financing.

Cost of Debt

Q Please discuss the cost of debt S&T proposes to use in its ROR.

A S&T proposes to use a cost of debt of 3.87%. I reviewed S&T's audited financial statements and verified that this rate accurately reflects S&T's cost of debt. Staff agrees with S&T that this is a reasonable cost of debt to use in the rate of return.

S&T's Proposed Return on Equity is 12.50%

Q How does S&T arrive at the 12.50% return?

A S&T justifies its request for a 12.50% return on equity by what appears to be rebuttal or responsive testimony filed by Curt Huttsell of Telecom Consulting Associates (TCA) in a docket before the Public Service Commission of Utah. Mr. Huttsell is not a witness in this docket and is not sponsoring those pages of testimony; rather it appears to be sponsored by Daniel Meszler of TCA.

Q What are the short-comings of the cost of equity support S&T filed?

A There are several shortcomings to S&T's support for its 12.50% return on equity: 1) there is no testimony or analysis that links Dr. Huttsell's findings in the Utah docket to the required return for S&T; 2) there is no discussion of how S&T's request is consistent with previous Commission Orders such as the Order in for LaHarpe Telephone Company Docket No. 12-LHPT-875-AUD; and 3) S&T provides no explanation why the 10% allowed return granted in recent KUSF

dockets no longer reflects the conditions in the capital markets. Each one of these three problems is sufficient reason to disregard the request for a 12.50% return on equity.

Cost of Equity Recommendation for S&T

Q How did you arrive at your estimate of 9.75%?

A My recommendation is based on the recent decisions issued by the Commission and the CAPM and DCF analyses that I performed for this Docket. The following table provides a summary of the results.

Staff's Cost of Equity Estimates

Discounted Cash Flow Analysis:		
Based on nGDP growth of 4.47%:		
	Mean	9.88%
	Min	5.71%
	Max	14.63%
Based on growth of 2.50% (to reflect the forecasted rate of inflation)		
	Mean	7.91%
	Min	3.74%
	Max	12.66%
Based on forecasted 3 to 5 year earnings growth		
	Mean	9.20%
	Min	0.93%
	Max	20.69%
Capital Asset Pricing Model:		8.39%
		9.00%
Commission Decisions:		
LaHarpe Telephone Co. (12-LHPT-875-AUD)		10.00%
Staff's Recommendation:		**9.75%**

I recommend a 9.75% return on equity for S&T with a range of 9.25% to 10.25%. This is consistent with the Commission's findings in a recent, fully litigated rate case and a KUSF docket.

There are several reasons why it is reasonable for the Commission to set S&T's return at a similar level. First, the economy and capital markets are comparable to the economy at the time of that decision. Information for that Docket was gathered and decisions made in the post-recession economy. Although we are further along in the recovery, the recovery continues with slow economic growth and low interest rates. Second, the Docket was fully litigated by the parties. The LaHarpe case included substantial questioning of the witnesses on the risks and growth prospects of Kansas RLECs. The Commission weighed the evidence and testimony presented by Staff and the Company, which had divergent views, and decided that a fair and reasonable return to shareholders is 10.00% for an RLEC. Third, an allowed return of 9.75% is supported by my DCF analyses which incorporate current data from the financial markets and long-term forecasts for economic growth.

Q Did you analyze the adequacy of your recommendation?

A Yes, Staff's Schedule D-1 calculated S&T's ability to meet its annual interest payments known as a times interest earned ratio (TIER). Taking into account Staff's adjustments including Staff's rate of return, Staff's KUSF support level provides S&T with a TIER of 5.10 based on Staff's Pro-Forma Adjusted Intrastate

revenue requirement (see Staff Schedule D-1). The TIER calculation appears in Staff Schedules sponsored by Katie Figgs. These calculations are evidence that Staff's revenue requirement is sufficient for S&T to satisfy its lenders and stockholders. That is, S&T will be able to make interest payments to its lenders and will have the opportunity to accumulate patronage capital.

Standards for Evaluating a Fair Rate of Return

Q Please discuss legal standards used to evaluate a utility's allowed return on equity capital and allowed rate or return.

A I discuss these standards in Appendix A, attached to my testimony. Appendix A discusses key rulings by the United States Supreme Court that financial analysts and policy makers rely on for guidance. My recommendation is consistent with the decisions from the United States Supreme Court in that I have based my recommendation on current data from the securities market and relied on data of publicly traded companies in the rural local exchange segment of the telecommunications industry.

Q How does this Docket, in which the Commission is setting the level of KUSF support for an RLEC, differ from a typical rate case?

A In a typical rate case, the revenue requirement is only collected from a utility's customers. In determining an RLEC's KUSF support, the Commission is setting a support level that is paid for by all Kansans -- a transfer of money from users of

telecommunications services to the ratepayers of the RLECs. In essence, all Kansans are paying a portion of the RLECs' revenue requirements.

Q In authorizing an ROR, has the Commission set forth any factors it relies on to guide its decisions?

A Yes. In Docket No. 10-KCPE-415-RTS, the Commission stated in its Order (415 Order), "The return on equity we authorize should: 1) fairly compensate the utility for its invested capital; 2) enable the utility to compete for new capital on equal terms with other businesses in the same geographic area having similar risks; and 3) maintain the utility's financial integrity."[1] The Commission reiterated these principles in its Order issued in 12-KCPE-764-RTS (764 Order) issued December 13, 2012. In the 415 Order, the Commission also recognized its responsibility to balance the interests of investors seeking to earn a return on the capital they supply to the utility with the prices charged to utility consumers.[2] In the 415 Order, the Commission explicitly noted that consumers' interests must be included in that balancing of interests, particularly in times of economic hardships.[3]

Q Do those principles apply to the RLECs subject to these KUSF audits?

A Yes, these principles apply equally to KUSF audits where we are determining a revenue requirement on a rate of return regulated service as they do for setting revenue requirements for any other rate regulated industry. In both cases, a

[1] Order, Docket No. 10-KCPE-415-RTS at p.41 (Nov. 22, 2010).
[2] Order, Docket No. 10-KCPE-415-RTS at p.37 (Nov. 22, 2010).
[3] Order, Docket No. 10-KCPE-415-RTS at p.39 (Nov. 22, 2010).

regulatory agency has to balance the interests of a regulated utility and the consumer. In this instance, consumers' interests encompass all who contribute to the KUSF support.

Q Does your recommendation meet the standards discussed in the 415 Order and 764 Order?

A Yes, Staff's recommendation balances consumers' interests and investors' interests by explicitly including data from the capital markets and forecasts of long-term growth rates for the economy, thus recognizing the realities of the current economy.

Economic Forecasts

Q Do your recommendations take into consideration the current economic environment?

A Yes, my recommendations take into consideration the current economic environment and investors' expectations. It is important that cost of capital recommendations are built on inputs that encompass the current economic climate so as to meet the tenets of a reasonable return expressed by the Courts (see Appendix A). I have done that by using data derived from the markets in the DCF and CAPM analysis. The market derived data is critical because it conveys investors' perceptions of the financial prospects of the companies in the proxy group and the prospects for the broader economy. We can be confident that the data from the market reflects investors' beliefs about the economy because it is

generally accepted that rational, profit maximizing investors are forward-looking. That is, investors price securities by using the best available information to estimate the prospects of those investments. It is also generally accepted that our financial markets are efficient in that securities' prices reflect all of the public (and perhaps non-public) information.

With this information rolled into the market prices and interest rates used in my analysis, it is not necessary for the Commission to establish its own forecast of the economy. The information we rely on already embodies the market's expectations. If the Commission is interested in a sample of the type of information regarding what some expect is in store for the economy, I have attached economic and market forecasts published by Value-Line Investment Survey, The Survey of Professional Forecasters,[4] and J.P. Morgan Long-Term Capital Market Return Assumptions[5] (Schedule AHG-1).

Return on Equity Models

Q How did you estimate the cost of equity?

A I selected a group of proxy companies from the telecommunications utility industry and performed a discounted cash flow (DCF) analysis and capital asset pricing

[4] Survey of Professional Forecasters; Research Department: Federal Reserve Bank of Philadelphia; http://www.phil.frb.org/research-and-data/real-time-center/survey-of-professional-forecasters/

[5] J.P. Morgan Asset Management, Long-term Capital Market Return Assumptions, 2014 Edition; J.P. Morgan Asset Management; http://www.jpmorganinstitutional.com/pages/jpmorgan/am/ia/research_and_publications/long-term_capital_market

model (CAPM) analysis. For a description of these models, see Appendices B and C attached to my testimony.

Q Please discuss the challenges you encountered in assessing the capital costs in these KUSF revenue requirements.

A Estimating the capital costs of RLECs in these KUSF Dockets is challenging because we are estimating the cost of capital for a very narrow set of telecommunications services that fall under the umbrella of KUSF services.[6] Fortunately, the Commission has recently heard extensive evidence on RLEC risk and growth potential and, from that evidence, concluded that a 10.00% ROE was reasonable. The Commission's Order in the LaHarpe Docket, in addition to the 415 Order and 764 Order provide a significant amount of guidance.

Selecting Proxy Companies for the Analysis

Q How did you select a proxy group for your cost of capital study?

A I began with the telecommunication services companies followed by Value-Line Investment Survey and YahooFinance. From those groups, I selected companies that pay dividends and derive some of their revenue providing local exchange services. The Value-Line reports for each of the companies appear in Schedule AHG-2.

[6] In Kansas, Universal Service is defined by K.S.A. 66-1,187(p): "Universal service" means telecommunications services and facilities which include: single party, two-way voice grade calling; stored program controlled switching with vertical service capability; E911 capability; tone dialing; access to operator services; access to directory assistance; and equal access to long distance services."

Each of the companies in the proxy group provide local exchange services in addition to other services, such as digital subscriber line, cable television, and wireless. It would be ideal to have a group of companies soley in the business of providing local exchange services in rural areas, but that is not currently a realistic selection criteria.

Q Because of these other lines of business and services, do the cost of equity estimates for the proxy companies include growth potential that may not apply to all of the RLECs' services?

A Yes, each of the proxy companies is engaged in other segments of the telecommunications industry and these services have higher growth rates than services that are under the KUSF umbrella. In fact, just like most RLECs in Kansas, the members of the proxy group are losing local service, wire-line customers to other forms of telephony service. The proxy companies that are growing wire-line customers are doing so by mergers and acquisitions.

These other services are provided in a competitive environment. The local, wire-line services that most Kansas RLECs provide do have to compete against other services, but at the same time RLECs have access to state and federal subsidies to stabilize cash-flows, recover invested capital, and earn their allowed return. Support from the KUSF and USF enable local wire-line service providers to recoup costs of providing service and capital investments without raising local rates, thus reducing the risk of recovering capital investments. In addition to these subsidies, a

local telephone company that has opted for traditional rate of return regulation in Kansas can file for a revenue adjustment (either through the KUSF or local rates) when it fails to earn its allowed return on capital. Rate of return established revenue streams and regulation are not an option for the business units of the proxy companies operating in a competitive environment, thus making those competitive services riskier than the KUSF supported services.

Q What companies did you select for your analysis?

A I selected seven companies for the proxy group; each derive some of their business through local wire-line service in rural areas. Each of these companies are exposed to risks associated with declining wire-line penetration and modifications in universal service support, as RLECs in Kansas are also exposed to these risks. Schedules AHG-2 & AHG-3, Value-Line and ThomsonFN respectively, describe the proxy companies' general business operations.

CenturyLink, Inc	CTL
Consolidated Communications	CNSL
Frontier Communications	FTR
Hickory Tech Corporation	HTCO
Shenandoah Telecommunications	SHEN
Telephone & Data Systems	TDS
Windstream Corporations	WIN

Q Are there other unique issues for the RLEC industry?

A There is a definitive trend in the growth of land-line subscription; that trend is negative, and in some years, the industry has exhibited negative growth of nearly

10%. Based on reports and industry research, that trend is likely to continue. I have not found any research material to suggest that land-line growth will be positive or even flat.

From Standard & Poors':

> Under our baseline economic assumptions, while we expect revenues across the telecommunications and cable-TV sectors to be fairly flat on an aggregate basis, there are varying prospects for different segments. For the wireline subsegment, we anticipate generally flat to negative revenue trends as residential voice customers are lost to wireless and to cable competition, and as the pace of new digital subscriber-line (DSL) customer additions wanes. In contrast, prospects for the wireless industry are considerably better and we anticipate that increasing data usage, spurred by the growing proportion of smartphones, should somewhat offset lower voice yields, which, combined with some increase in subscribers, should enable the largest wireless operators to post modest revenue increases in 2012. (p4)
>
> In marked contrast to a still-growing wireless industry, landline telephone companies continue to see mid-single- to low-double-digit erosion of their residential voice customer base. While some of those losses are to cable telephony, the more important longer term issue for the wireline industry is the continuing, significant loss of voice access lines to wireless substitution, as more customers--especially younger ones--increasingly choose to have only a wireless device. (p6)[7]

The capital markets recognize that the traditional wire-line services and the basic telephony services that fall under the KUSF umbrella are not driving the telecommunications industry's growth; they are likely a drag on future growth.

[7] Industry Report Card: U.S. Telecommunications And Cable: Some Islands Of Weakness In A Relatively Stable Sea, Standard & Poors' Ratings Direct on the Global Credit Portal, April 25, 2012; www.standardandpoors.com/ratingsdirect

This point is important when it comes to applying the DCF models to estimate the required return on equity in KUSF audits, such as we are doing here. In applying the DCF model, it is vital to review the growth forecasts to make certain that they represent a realistic expectation for the future. Based on the research cited above, we cannot simply apply a forecasted growth rate of the telecommunications industry or telecommunications company because that would include the potential of wireless, broadband, and cable television services. Those are not KUSF covered services. Later in my analysis I will discuss how it is possible to estimate a growth rate for the DCF model that is realistic of KUSF services.

Discounted Cash Flow Analysis

Q Please describe the DCF model you used in this analysis.

A The mechanics and theory underlying the DCF models are discussed in Appendix B, attached to my testimony. I applied the DCF model to the proxy companies using recent stock prices and growth rate forecasts. The general form of the DCF model incorporates the company's dividend yield plus its anticipated dividend growth rate.

Cost of equity = dividend yield + forecasted growth rate

Q How did you calculate the dividend yield?

A I used the 2015 expected annual dividends divided by the average stock price from March 1, 2014, through August 27, 2014. The data for the stock prices and

calculation of the dividend yields appear in Schedule AHG-4. The dividend yield is easily calculated and seldom, if ever, controversial since the stock price and annual dividend is readily observable.

Q Please explain how you estimated the growth rate used in Staff's DCF analysis.

A The growth rate is difficult to determine, particularly for an RLEC business, mostly because of the reasons I just discussed regarding negative growth rates and declining subscribers. As I discuss in Appendix B, the growth rate in the DCF model is the growth rate investors apply to the company's dividends in perpetuity. The difficulty stems from trying to ascertain what growth estimate investors apply to the dividend stream over a very long time horizon and, in this instance, we are dealing with growth estimates for a specific segment of the broader telecommunications industry. At the broad level, the industry is growing; this segment of basic telephony services is not growing, it is contracting. Thus, there is very little growth for earnings and dividends from this sector.

For my DCF analysis of the telecommunications service providers, I relied on two sources for projected earnings growth rates: Value-Line Investment Survey, which provides three-to-five year growth estimates; and ThomsonFN, which reports a consensus average of analysts' five year growth forecasts. I averaged these earnings growth forecasts together to arrive at a near-term growth estimate of the proxy companies. I also incorporated an estimate of long-term economic growth.

Q Do you believe these near-term, three-to-five year, earnings growth forecasts

are useful for estimating the cost of equity for RLECs in Kansas in these KUSF audits?

A The short-term earnings forecasts for the proxy group provides an interesting perspective even though these growth estimates are of a limited value in a DCF analysis of this segment of the telecommunications industry. In the broad picture of the telecommunications industry, earnings have been volatile. As you can see in the following table, the proxy group exhibits historic earnings that have gone from strongly negative to forecasts of double-digit positive growth. This volatility does not lend itself to estimating a long-run growth rate necessary for use in DCF analysis.

Comparison of Forecasted Earnings Growth Rates

	Historic Earnings Growth Rates		Data for Wamego KUSF January of 2014		Present Case Data August of 2014	
	10 Year	5 Year	3 to 5 Year Value-Line	5 Year IBES	3 to 5 Year Value-Line	5 Year IBES
CenturyLink, Inc	1.00%	-8.00%	8.00%	1.30%	7.50%	-2.00%
Consolidated Comm.	n/a	5.00%	13.50%	2.00%	15.50%	2.00%
Frontier Communications	n/a	-19.50%	9.50%	-10.50%	13.50%	-25.20%
Hickory Tech Corporation*	n/a	-4.60%	n/a	3.80%	n/a	3.80%
Shenandoah Telecomm.	12.50%	1.00%	16.00%	24.40%	14.50%	24.40%
Telephone & Data Systems	n/a	-8.00%	4.00%	4.00%	4.00%	-4.00%
Windstream Corporations	n/a	-9.50%	8.50%	-20.50%	4.00%	-8.70%

*data from I/B/E/S - YahooFinance.com
Sources: Value-Line & I/B/E/S - YahooFinance

Q Are there other sources of growth estimates to help us in estimating an RLEC's cost of equity?

A. Yes, it can be helpful to examine the forecasted growth of our economy's nominal gross domestic product (nGDP) to provide a long-term outlook of expected

economic growth. These forecasts are 25 to 75 year forecasts.

I believe the best information available for a DCF analysis of this industry is using a forecast of the broad U.S. economy such as nGDP.[8] The rationale for using this estimate in a DCF analysis is that, despite volatility of short-term corporate earnings or dividend forecasts, a mature industry, such as provision of basic telecommunications services, is likely to experience long-term growth *no greater than* that of the general economy. The Commission has found that Staff's use of nGDP growth forecasts in the DCF model is reasonable and appropriate.[9]

Q Is it accepted practice to use nGDP growth estimates in the DCF model?

A Yes, in valuation analyses where a long-run growth estimate is necessary to estimate the value of a stream of future cash flows, it is a widely held practice to incorporate long-run nGDP growth estimates in the analysis. The Federal Energy Regulatory Commission (FERC) has required the use of long-run growth estimates in cost of capital studies of FERC regulated natural gas and electric transmission companies. This Commission has also adopted the use of long-run nGDP growth estimates.

Q Is there academic support for this issue?

[8] nGDP is a measure of the United States' economic output -- the market value of all final goods and services made within the borders of the country in a year and includes the year-to-year effects of general price increases or inflation.
[9] Order Setting Annual Cost-Based Kansas Universal Fund Support For LaHarpe Telephone Company, Inc.; June, 26, 2013; Docket No. 12-LHPT-875-AUD; para 20.

A Yes, in two of his books devoted to the subject of asset valuation, Investment Valuation: Tools and Techniques for Determining the Value of Any Asset, 2nd Edition and Damodaran on Valuation: Security Analysis for Investment and Corporate Finance, 2nd Edition, Professor Aswath Damodaran of the Stern School of Business at New York University discusses the nature of a stable growth rate for DCF models. He argues for viewing nominal economic growth as the absolute maximum when using a stable growth model, such as the DCF model we are using.

> *"The stable growth rate cannot exceed the growth rate of the economy in which a firm operates, but it can be lower. There is nothing that prevents us from assuming that mature firms will become a smaller part of the economy and it may, in fact, be the more reasonable assumption to make. Note that the growth rate of an economy reflects the contributions of both young, higher growth firms and mature, stable growth firms. If the former grow at a rate much higher than the growth rate of the economy, the latter have to grow at a rate that is lower."*[10]

> *"The growth rate of a company cannot be greater than that of the economy but it can be less. Firms can become smaller over time relative to the economy. Thus, even though the cap on the growth rate may be the nominal growth rate of the economy, analysts may use growth rates much lower than this value for individual companies."*[11]

Professional investment managers apply these principles. J.P. Morgan Asset Management describes how they arrive at their equity market assumptions.[12]

> *"Our framework begins with underlying economic activity—real GDP*

[10] Damodaran on Valuation: Security Analysis for Investment and Corporate Finance, 2nd Edition; Aswath Damodaran; p.148.
[11] Damodaran on Valuation: Security Analysis for Investment and Corporate Finance, 2nd Edition; Aswath Damodaran; p.159.
[12] "Long-Term Capital Market Assumptions: 2014 Assumptions and the Thinking Behind the Numbers"; J.P. Morgan Asset Management, p50; http://www.jpmorganinstitutional.com/pages/jpmorgan/am/ia/research_and_publications/long-term_capital_market

growth plus inflation—which we believe ultimately drives earnings growth in the long run."

Thus, it becomes clear that the linkage between expected economic growth and the growth potential of corporate earnings and dividends is more than just an academic principle in finance; professional money managers accept the relationship between GDP growth and corporate earnings growth when forming their long-run forecasts.

Long-Run Growth Estimates

Q How did you arrive at a long-run estimate of nGDP growth?

A I obtained estimates of long-run growth from two sources that are likely the longest horizons published for such a forecast. The sources are the Energy Information Administration and the Social Security Administration. Weighting these two equally results in an average of 4.47%.

Forecasts of Long-Run Nominal GDP Growth

	2014 to 2040
Energy Information Administration (1)	4.42%
	2014 to 2090
OASDI Trustee's Report (2)	4.51%
Average	4.47%

Sources:
1) Energy Information Administration; Annual Energy Outlook 2014 with Projections to 2040; Real GDP 2.4% + GDP Price Index 1.8% compounded

2) 2014 OASDI Trustees Report, Economic Assumptions & Methods; Social Security Administration; Table V. B1 & Table V.B2. Generally Real GDP of 2.1% + GDP Price Index of 2.1% compounded annually

There are additional long-run GDP growth forecasts available; the two that I use are included in long-run growth forecasts used in DCF analyses before FERC and are sources that are readily available to all investors. The estimates that I use are similar to forecasts of real GDP published by other sources and reported by EIA in its Annual Energy Outlook. As you can see in the next table, all of the forecasts are in the range of 2.4% to 2.8%; coupled with an inflation forecast of 2.00, the resulting nominal GDP is similar to that forecast by the Social Security Administration and EIA.

EIA 2014 Annual Energy Outlook
Table of Comparative Real GDP Growth
Table CP1. Comparisons of average annual economic growth projections, 2012-40

	Average annual percentage growth rates			
Projection	2012-2015	2012-2025	2025-2040	2012-2040
AEO2014 (Reference case)	2.6	2.5	2.4	2.4
AEO2013 (Reference case)	2.6	2.6	2.4	2.5
IHSGI (May 2013)	2.6	2.5	2.4	2.5
OMB (January 2014)[a]	2.7	2.6	--	--
CBO (February 2014)[a]	2.6	2.5	--	--
INFORUM (November 2013)	2.4	2.6	2.3	2.4
Social Security Administration (August 2013)	3	2.7	2.2	2.4
IEA (2013)[b]	2.6	2.8	--	2.4
ExxonMobil	--	2.5	2.2	2.4
OEG (January 2013)	2.7	2.7	2.5	2.6

-- = not reported or not applicable.

[a] OMB and CBO projections end in 2024, and growth rates cited are for 2012-24. AEO projections end in 2040.

[b] IEA publishes U.S. growth rates for certain intervals: 2011-15 growth is 2.6%, 2011-20 growth is 2.8%, and 2011-35 growth is 2.4%.

Sources: Comparisons of average annual economic growth projections, 2012-40: AEO2014 (Reference case): AEO2014 National Energy Modeling System, run REF2014.D102413A. AEO2013 (Reference case): AEO2013 National Energy Modeling System, run REF2013.D102312A. IHSGI: IHS Global Insight, 30-year U.S. Economic Forecast (Lexington, MA, October 2013), http://www.ihs.com/products/global-insight/index.aspx (subscription site). OMB: Office of Management and Budget, Budget of the United States Government, Fiscal Year 2015 (Washington, DC, January 2014), http://www.whitehouse.gov/sites/default/files/omb/budget/fy2015/assets/budget.pdf. CBO: Congressional Budget Office, The Budget and Economic Outlook: 2014 to 2024 (Washington, DC, February 2014), http://www.cbo.gov/publication/45010. INFORUM: *INFORUM AEO2012 Reference Case, Lift (Long-term Interindustry Forecasting Tool) Model* (College Park, MD, January 2014), http://inforumweb.umd.edu/services/models/ lift.html. SSA: Social Security Administration, OASDI Trustees Report, *The Long-Range Economic Assumptions for the 2013 Trustees Report* (U.S. Government Printing Office, Washington, DC, May 2013), http://www.ssa.gov/oact/tr/2013/2013_Long-Range_ Economic_Assumptions.pdf. IEA (2013): International Energy Agency, *World Energy Outlook 2013* (Paris, France, November 2013), http://www.iea.org/Textbase/nppdf/stud/13/weo2013.pdf. ExxonMobil: *ExxonMobil 2014 The Outlook for Energy: A View to 2040* (Irving, TX, 2013), OEG: Oxford Economics, Ltd., 2014 Long Term Forecast (Oxford, United Kingdom, January 2014), http://www.OxfordEconomics.com (subscription site).

Q In your application of the DCF model, how did you weight the short-term earnings per share and long-term nGDP growth rate forecasts?

A I did not give any weight to the three-to-five year earnings growth forecasts because it is unlikely they reflect a realistic growth estimate for RLECs.

Q What do you believe to be an appropriate estimate of growth for this segment of the telecommunications industry?

A For the services covered by the KUSF and the limited growth expected of those services provided by the RLEC, I believe it is reasonable to assume a growth rate in the neighborhood of projected nGDP and projected rate of inflation. Based on my review of available industry forecasts and expectations, I doubt the RLEC industry can expect growth at the same level as long-run nGDP forecast.

Q Please discuss the results of the DCF analyses under the various growth rate assumptions.

A I performed three DCF calculations using different growth rate assumptions. The first calculation assumes the three-to-five year forecasted earnings growth rate. There is a considerable amount of variation in the forecasted earnings growth which ranges from -5.85% to 19.45% with a mean of 3.79%. Beyond the minimum and maximum growth rates, only four of the seven are greater than zero. These earnings growth forecasts highlight the fallacy of relying on short-term earnings growth for a model that relies on a much longer time horizon. It is hard to fathom

the long-term growth rate at either extreme, continuing indefinitely beyond the three-to-five year forecast period.

DCF Analysis Using 3 to 5 Year Earnings Growth Forecasts

		EPS Growth	Dividend Yield	Cost of Equity
CenturyLink, Inc	CTL	2.75%	5.88%	8.63%
Consolidated Communications	CNSL	8.75%	7.39%	16.14%
Frontier Communications	FTR	-5.85%	6.78%	0.93%
Hickory Tech Corporation	HTCO	3.80%	4.42%	8.22%
Shenandoah Telecommunications	SHEN	19.45%	1.24%	20.69%
Telephone & Data Systems	TDS	0.00%	1.97%	1.97%
Windstream Corporations	WIN	-2.35%	10.16%	7.81%
Mean		3.79%	5.41%	9.20%

The next two tables incorporate growth rates based on the long-term nGDP forecasted growth rate of 4.47% and, roughly, the expected rate of inflation of 2.50%. The reasoning for these two perspectives goes back to my discussion on the expected growth rate of the RLEC industry in Kansas in the earlier pages of my testimony.

DCF Analysis using Long-Term GDP Growth Forecast

		Forecasted Growth	Dividend Yield	Cost of Equity
CenturyLink, Inc	CTL	4.47%	5.88%	10.35%
Consolidated Communications	CNSL	4.47%	7.39%	11.86%
Frontier Communications	FTR	4.47%	6.78%	11.25%
Hickory Tech Corporation	HTCO	4.47%	4.42%	8.89%
Shenandoah Telecommunications	SHEN	4.47%	1.24%	5.71%
Telephone & Data Systems	TDS	4.47%	1.97%	6.44%
Windstream Corporations	WIN	4.47%	10.16%	14.63%
Mean		4.47%	5.41%	9.88%

DCF Analyis using Long-Term Inflation Forecast as a Low-End of the Growth Estimate

		Forecasted Growth	Dividend Yield	Cost of Equity
CenturyLink, Inc	CTL	2.50%	5.88%	8.38%
Consolidated Communications	CNSL	2.50%	7.39%	9.89%
Frontier Communications	FTR	2.50%	6.78%	9.28%
Hickory Tech Corporation	HTCO	2.50%	4.42%	6.92%
Shenandoah Telecommunications	SHEN	2.50%	1.24%	3.74%
Telephone & Data Systems	TDS	2.50%	1.97%	4.47%
Windstream Corporations	WIN	2.50%	10.16%	12.66%
Mean		2.50%	5.41%	7.91%

Q What is your conclusion from the DCF analyses?

A I believe it is safe to conclude that the cost of equity for RLECs is less than 10.00%. We can observe in the market that the proxy group has a dividend yield of 5.41%, which is the annual dividend divided by the current stock price. With a dividend yield of 5.41%, it would require investors to expect an annual growth rate of at least 4.60% for the cost of equity to exceed 10.00%. I have not uncovered any information that would support a long-term growth rate of 4.60% for the Kansas RLEC industry especially as it relates to the services under the KUSF umbrella.

Capital Asset Pricing Model

Q Did you utilize a capital asset pricing model (CAPM) to estimate a cost of equity?

A Yes, my CAPM relies on forecasted returns for the equity markets and forecasted yields of the 10-year U.S. Treasury Bonds. I used this approach to capture investment professionals' view of future returns. This method also reduces the

effects of current low interest rates, which are a result of the Federal Reserve Board's monetary policy. By using a 10 to 15 year forecast for inputs, the model captures analysts' expectations without the direct effects of the Federal Reserve Board's current monetary policy.

Capital Asset Pricing Model -- Forecasted Risk Premium
Using Forecasted Market Returns & Treasury Bond Yields

		Large Cap.	Mid Cap.
1) Forecasted Returns on Common Stocks		8.49%	9.17%
2) Forecasted Total Return on 10 Year T-Bonds	-	4.45%	4.45%
3) Equity Risk Premium		4.04%	4.72%
4) Beta Staff' Telecom Proxy Group	x	0.90	0.90
5) Proxy Group Risk Premium		3.64%	4.25%
6) Forecasted Yield on 10 Year T-Bonds	+	4.75%	4.75%
7) Forecasted Cost of Equity		8.39%	9.00%

1) Forecasted 10 to 15 Year Annual Return Arithmetic return on stocks for large and mid-sized companies by J.P. Morgan Asset Management 2014 Edition.

2) Forecasted 10 to 15 Year Annual Return Arithmetic return on intermediate term U.S. Bonds by J.P. Morgan Asset Management 2014 Edition

3) Equity risk premium (1-2)

4) Beta coeffecient of Telecomunications Proxy Group

5) row 3 x row 4 = asset specific risk premiun

6) Forecasted Yield on 10 year U.S. Treasury Bonds Forecasted by J.P. Morgan Asset Management 2014 Edition

7) Forecasted cost of equity capital row 5 + row 6

Sources:
J.P. Morgan Asset Management, Long-term Capital Market Return Assumptions, 2014 Edition; J.P. Morgan Asset Management.
www.jpmorganinstitutional.com/pages/jpmorgan/am/ia/research_and_publications/long-term_capital_market

Staff's CAPM relies on forecasted returns on common stocks and intermediate term Treasury Bonds to arrive at a risk premium of 4.04% to 4.72%. The source of these forecasts is J.P. Morgan Asset Management.[13] This data results in an expected return of 8.50% to 9.00%, which is consistent with the DCF results.

[13] J.P. Morgan Asset Management, Long-term Capital Market Return Assumptions, 2014 Edition; J.P. Morgan Asset Management; http://www.jpmorganinstitutional.com/pages/jpmorgan/am/ia/research_and_publications/long-term_capital_market

The CAPM incorporates a beta coefficient of 0.90 indicating that the proxy group is slightly less risky than the broad market indexes which have a beta of 1.00. This fact offers further support for an allowed return for RLECs that is comparable to the expected return on the stock market or S&P 500 Index which in the current capital markets would be less than 10.00%.

Beta Coefficients		
CenturyLink, Inc	CTL	0.75
Consolidated Communications	CNSL	0.70
Frontier Communications	FTR	0.85
Hickory Tech Corporation	HTCO	0.94
Shenandoah Telecommunications	SHEN	0.95
Telephone & Data Systems	TDS	1.15
Windstream Corporations	WIN	0.90
		0.89

In summary, both the DCF and the CAPM analyses produce results below 10.00%. In the DCF analyses, there are observations of individual proxy companies that are as high as 12.00% and as low as 3.00%. Even with removing the unreasonably low observations, the average for the proxy group remains below 10.00%.

Expected Returns on Common Stock – Looking Forward & Looking Back

Q To put your recommendation into context, can you provide some perspective on equity returns of the past and forecasted for the future?

A The J. P. Morgan Asset Management report contains the expected arithmetic return on U.S. large capitalization stocks at 8.49% for the 10 to 15 year time horizon. For

U.S. mid-cap stocks, the forecast is 8.49%.[14] An interesting note regarding J.P. Morgan's forecast is that it explicitly states it is based on a building block approach. For equity returns, those "building blocks" of return are:

Inflation + Real Earnings Growth + Dividend Yield +/- Impact of Valuation Changes

The "valuation changes" input would encompass changes in earnings multiples. This equation illustrates that investment advisors like J.P. Morgan use a "growth + yield" model, which is a form of the DCF model that regulators use to estimate public utilities' cost of equity capital.

A number of studies sought to measure past returns in an attempt to ascertain what could be expected in the future. The research performed by Dr. Jeremy J. Siegel is often cited on this topic. Dr. Siegel's research into asset returns goes beyond the 1926 date often cited by Ibbotson & Associates in its Annual Yearbook. Dr. Siegel's starting point is the early 1800's; over the long-term, real returns on common stocks have been in the 6.50% to 7.00% range.

[14] J.P. Morgan Asset Management, Long-term Capital Market Return Assumptions, 2014 Edition; J.P. Morgan Asset Management.

Historical Real Returns on Common Stocks

Periods	Geometric	Arithmetic
1802 to 2011	6.70%	8.20%
1870 to 2011	6.50%	8.20%
Major Sub-periods		
1802 to 1870	7.00%	8.30%
1871 to 1925	6.60%	7.90%
1926 to 2011	6.40%	8.40%
Lowest		
1966 to 1981	-0.40%	1.40%
Highest		
1982 to 1999	13.60%	14.30%
Recent		
2001 to 2011	0.80%	2.80%

Source: Rethinking the Equity Risk Premium; Long-Term Stock Returns Unshaken by Bear Markets; Dr. Jeremy J. Siegel; The Research Foundation of CFA Institute; p146, Table 1.

Ibbotson & Associates' annual publication is often cited as a source for historic returns and its findings are similar to Dr. Siegel's.

Cost of Capital Benchmarks
Nominal, Arithmetic Returns

Stock Bonds Bills & Inflation Yearbook:
Historic Returns from 1926-2013

Large Cap	12.10%

Source: Ibbotson SBBI, 2014 Classic Yearbook

J.P. Morgan Asset Management 15 Year Forecasts

U.S. Large Cap	8.49%
U.S. Mid Cap	9.17%
U.S. Small Cap	9.24%

Source: J.P. Morgan Asset Management, Capital Markets Assumptions 2014

In a recent update, Dr. Siegel projects a real return of 6.00% to 7.00% for the next

decade; such returns could be higher if the market price-earnings ratio increases.[15] Dr. Siegel's prediction for a real return of 6.00% to 7.00%, coupled with 10 year projections for inflation in the 2.00% to 2.20% range, puts the nominal return in the range of 8.00% to 9.20%.[16]

Q Does this conclude your testimony?

A Yes.

[15] Rethinking the Equity Risk Premium; Long-Term Stock Returns Unshaken by Bear Markets; Dr. Jeremy J. Siegel; The Research Foundation of CFA Institute; p147.
[16] Survey of Professional Forecasters; Third Quarter 2014, August 15, 2014; Research Department: Federal Reserve Bank of Philadelphia; http://www.philadelphiafed.org/research-and-data/.

Standards for a Reasonable Rate of Return

Q What is the role of rate of return in setting a revenue requirement for public utilities?

A The rate of return (ROR) earned on the utility's net plant is part of the revenue requirement equation. The ROR is a cost of providing the utility service, and all reasonable costs associated with the ROR need to be included in the revenue requirement.

Revenue Requirement = ROR (gross plant – accum. depr.) + Operating Exp. + Income Taxes

As you can see in the revenue requirement formula, the ROR expressed in this equation recovers the utility's return on its net plant investment.

Q How is the utility's ROR calculated?

A A utility's ROR is its weighted average cost of the capital. That is, the cost of each of the various forms of capital supplied by investors, which includes debt, preferred equity, common equity and any hybrid securities, multiplied by their respective weight in the utility's capital structure. The cost or return associated with each of these forms of capital is unique and it is a function of risks associated with that form of capital.

Q What are we talking about when we discuss a utility's rate of return or allowed return?

A In the broadest terms, a just and reasonable rate of return enables the utility to pay interest on its debt and earn a net income that is sufficient to compensate equity investors.

Q Please discuss the standards regulators rely on to evaluate a utility's allowed return.

A Estimating a utility's capital costs draws on elements of economics, finance and accounting. The standards to gauge the fairness or reasonableness of an estimate have been established through cases argued at the United States Supreme Court. Each case is the result of a public utility appealing a decision issued by a regulatory agency: either state or federal. Through these cases, the Court has put forth concepts of what constitutes a reasonable rate of return. Financial analysts and policy-makers rely on these decisions as a guide in estimating the appropriate cost of capital. The decisions issued by the Court do not articulate precisely how to estimate or model a reasonable cost of capital. Instead, the decisions provide critical questions for policy makers and analysts to consider in reaching their decision as to what is a reasonable return for a regulated utility.

In general, the Court's decisions state that returns granted to regulated public utilities should: 1) be commensurate with returns on investments of similar risk; 2) be sufficient to assure the financial integrity of the utility under economic

management; and 3) change over time with changes in the money market and business conditions.[1] The Court's decisions do not dictate precisely how to calculate a reasonable return; they provide criteria to determine if the return embedded in the revenue requirement is reasonable.

Q Discuss how rate of return analysts apply the standards established by the Court.

A For a rate of return to meet the legal standards, the return should be specific to the utility in question, taking into account the unique risks faced by that utility and the type of service it provides. The allowed return must also consider the mix of debt and equity capital it employs to finance its rate base and provide a reasonable return for each of those components.

The costs of debt and hybrid securities generally rely on a contractual agreement with the investor; their cost is relatively easy to determine. The cost of preferred equity securities are similar to debt and have a contractual obligation for a dividend payment. Thus, it is relatively easy to determine the cost of these forms of capital since it is a stated cost. The cost of common equity capital is more elusive because there is no contractual obligation for the utility to pay shareholders a return on their investment.

[1] Smyth v. Ames, 169 U.S. 466 (1898). Wilcox v. Consolidated Gas Co., 212 U.S. 19, 48-49 (1909). Blue Field Water Works & Improvement Company v. Public Service Commission of West Virginia, 262 U.S. 679, 692-3 (1923). Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591, 603 (1944).

Q How do the Court's decisions offer guidance to analysts and Commissioners in setting a reasonable return on equity?

A The Court's decisions provide a framework to help decision-makers understand the critical elements of a fair return, but the Court's decisions do not endorse or reject any specific financial model. There are numerous financial models available for analysts to estimate a utility's cost of equity capital. Regardless of which model is used, the analyst's recommendation has to meet the principles set out in the Court's decisions.

Q Precisely, what are the financial models attempting to measure?

A The financial models are used by regulators to estimate the investors' required rate of return for owning the stock. The required rate of return is also referred to as an opportunity cost. Investors will only commit their capital to investments that meet their required return. Investors' required rate of return is their opportunity cost for investing in the utility, as opposed to using the funds for an alternative investment of comparable risk. Of course, risk is a vital consideration; the only relevant alternative investments are those that possess a comparable risk profile to that of the utility in question.

Q Is the return on equity supposed to compensate investors for all risks associated with the investment in a utility's common stock?

A No, it is not. Regulators need to be cognizant of financial theory, as well as decisions by the Court, when establishing the utility's allowed return on equity. Regulators must not attempt to compensate equity investors for every risk faced by a utility. To do so would overstate investors' required return because investors can and, therefore, will reduce risk by holding a broad and diverse group of investments with complimentary risk profiles. Prudent investors own a diversified portfolio of investments to reduce their exposure to risk. Diversification enables prudent investors to reduce risk without reducing the return. Diversification is implicit in cost of capital analyses because rational investors desire to seek out diversification as a way to achieve the greatest available return for the amount of risk. This is well documented in financial literature and is prudent, profit-maximizing behavior by the investors.[2]

Q Please describe the risks inherent in investing in common stocks.

A There are two categories of risk associated with common stocks: *systematic risks* that are global or macro-economic risks affecting all stocks; and *unsystematic risks* (also known as firm specific risks) that are risks unique to a company.

Q Should the allowed return on equity attempt to compensate stockholders for both categories of risks?

[2] Steven G. Kihm, How Improper Risk Assessment Leads to Overstated Required Returns for Utility Stocks (2003), attached to this testimony.

A No. In an efficient market, investors are not compensated for unsystematic risk because they can eliminate that risk through diversification. The unsystematic risks of companies in a diversified portfolio can offset one another, leaving the portfolio exposed to only systematic risks, that is, those risks affecting the general economy. Systematic risks include macro-economic features, such as changes in interest rates and economic growth that affect all companies.

Q Is it important for the Commission to be aware of these two categories?

A Yes, if Commissions are not cognizant of these differences, they might be persuaded to over-compensate equity investors by increasing the allowed returns to cover unsystematic risks. Some claim that there is no harm in Commissions increasing the allowed return above what is necessary so as to ensure that stockholders are adequately compensated. This practice results in poor allocation of resources, and it is harmful because it results in unnecessarily and unreasonably higher rates, transferring money from residential and business consumers in the service territory to the utility's shareholders.

Discounted Cash Flow (DCF) Model

Q Does the DCF model meet the legal standards discussed in Appendix A of your testimony?

A Yes, cost of equity estimates based on the DCF model meet the legal standards discussed in Appendix A because the model incorporates investors' expectations via forward-looking growth rates and encompasses current market information via current stock prices. Using market based information ensures the cost of equity estimate evaluates investors' required rate of return in the current economic environment, capturing risks specific to the company and the industry in question.

Q Has the DCF been an accepted model for regulators to estimate the cost of equity?

A Yes. The DCF model is the most widely used model for regulatory bodies setting allowed returns, including the Kansas Corporation Commission. Regulatory agencies may incorporate more than one model to arrive at an estimate. If more than one is used, the DCF model is always one of the models. If only one model is used, it is going to be the DCF model.

Q What is the underlying basis for the DCF model?

A The DCF model is an investment valuation model used to value different and diverse types of investments such as real estate, bonds, and common stocks. The

DCF model is useful to value any investment that involves regular, periodic cash flows.

The notion of discounting a future receipt or payment back to the present so as to place a price or value on an investment probably goes back centuries. The formal presentation of the DCF model as we use it today dates back to the 1930's in Irving Fisher's book The Theory of Interest and John Burr Williams' 1938 text The Theory of Investment Value. These two authors formally expressed the DCF model in modern economic terms.

The premise of the DCF model in the valuation of common stock is that investors determine the value of a company's common stock by discounting its future dividend payments back to the present. The cornerstone of the DCF model is the process of discounting those future cash flows back to the present at the investors' required rate of return. An investor's required rate of return is risk sensitive, so that as the risk of the investment increases so will the investors' required return. A higher required rate of return *decreases* the present value of the stream of dividends that equates to the price of the stock. With all other variables being equal, investors price the riskier of two common stocks lower because the cash flows or dividends are discounted back to the present at a higher rate.

The basic form of the DCF equation that is used to price or value common stock is:

$$P_0 = \frac{D_0\ (1+g)}{(1+Ke)} + \frac{D_0\ (1+g)^2}{(1+Ke)^2} + \frac{D_0\ (1+g)^3}{(1+Ke)^3} + \ldots\ldots$$

As this equation sums the increasing dividend payments indefinitely, it is simplified to:

$$P_0 = \frac{D_0(1+g)}{(Ke-g)}$$

Where:

P_0 = *Current Stock Price*

D_0 = *Current Dividend*

g = *Growth Forecast*

K_e = *Required return on equity or cost of equity*

Generally stated as:

Stock Price = Annual Dividend / (Req'd Rate of Return – Dividend Growth Rate)

The equation below shows the algebraic isolation of the investors' required rate of return (Ke). By isolating investors' required rate of return, Ke in the equation, we can estimate it by knowing the stock's dividend yield and the annual dividend growth rate expected by investors. That form of the equation is:

Req'd Rate of Return = (Annual Dividend/Stock Price) + Dividend Growth Rate

Req'd Rate of Return = dividend yield + Dividend Growth Rate

Or

$$K_e = \frac{D_0(1+g)}{P_0} + g$$

Or frequently written as,

$$Ke = y + g$$

Where:

Ke = *Investors' required rate of return or cost of equity*

g = *expected dividend growth rate*

y = *dividend yield or (annual dividend / current price)*

The basic form of the DCF model shown above assumes the investor is paid a dividend at the end of each year. It is common to modify this assumption to account for semi-annual dividend payment and dividend growth that occurs during the year. This form of the DCF calculation is shown below and one that is routinely used at state commissions and the Federal Energy Regulatory Commission. Shown below is the form of the DCF model that I applied to each of the comparable utilities.

$$Ke = (1+.5g)\ y + g$$

Q How did you calculate the dividend yield (y) component of the DCF model?

A The dividend yield (y) is the easiest of the two components to measure. It is calculated by dividing the stock's forward-looking annual dividend payment per share by its market price per share. For example, a company paying an annual dividend of $2.00 per share with a market price of $76.00 has a dividend yield of 2.63%.

Q What is the source of the dividend information?

A Historic and current dividend information is easily obtained from public sources. The DCF model requires a forward looking dividend payment which is often the current year's dividend payment increased by the expected growth rate or the forecasted growth rate for next year.

Q Do you rely on a price from a point in time or an average price taken from a period of time?

A I use the average price from the past three months. An analyst can use stock prices from either a point in time or an average from a period of time. Either method is reasonable as long as the prices reflect the current market conditions and embody the information available to investors.

Q Please discuss the importance of the second component, the growth rate (g), in the DCF equation.

A The "g" represents the anticipated growth in cash flows that investors expect to receive from the stock. This is a difficult and contentious issue in a DCF analysis

for two reasons. First, it is a key element in the DCF model because the growth rate has a one-for-one affect on the utility's allowed return. All other factors being equal, a higher growth rate results in a higher return on equity for the utility. Second, there is an element of subjectivity to selecting the growth rate due to the uncertainty about the future earnings and dividends. It is difficult to uncover what growth rate estimates investors rely on when they value a stock and where they obtain that information. There is academic research that addresses this issue, but even this research provides conflicting answers.

The appropriate growth estimate is that which is expected by the market and factored into investors' analyses to estimate the stock price. That is, it is the growth estimate investors used to determine the stock price. Determining precisely how investors estimate the growth rate used in evaluating common stocks is difficult.

Academics have studied this question and can provide us with some guidance. Unfortunately, the research does not provide a definitive answer on exactly how to estimate or where to obtain an estimate for the growth rate. I believe the research provides us with two key findings. First, earnings growth forecasts from financial analysts are superior to extrapolating historic data.[1] Second, earnings forecasts from Value-Line Investment Survey are a reasonable source for those

[1] On the Use of Consensus Forecasts of Growth in the Constant Growth Model: The Case of Electric Utilities; Stephen Timme and Peter Eisemann; Journal of Financial Management; Winter 1989; pp23-39.

The Superiority of Analyst Forecasts as Measures of Expectations: Evidence from Earnings; Lawrence Brown and Michael Rozeff; The Journal of Finance; March 1978, Vol. 23; pp1-16.

forecasts.[2] Published, consensus estimates, that are published earnings estimates based on the mean or median of numerous analysts that follow a particular company, are also a source of forecasts investors frequently use in valuation analysis of common stocks.

Q What growth estimates have been researched and frequently incorporated in the DCF model?

A Earnings per share, dividends per share and intrinsic growth rates are the most common growth estimates incorporated into the DCF model. Most investment firms that publish growth forecasts publish three to five year annual earnings growth estimate. A few firms, such as Value-Line, publish an earnings growth forecast and a dividend growth forecast. A three to five year time horizon is about as far into the future that analysts provide. For longer time horizons, there are forecasts of the nation's Gross Domestic Product (GDP) that capture expectations for economy. As I discussed in my Direct Testimony, estimates of GDP growth can provide an idea of the maximum possible dividend growth rate for the DCF model. It's a maximum because of the unlikely scenario of a utility's dividend forever growing at a faster rate than the broadest measure of the nation's

[2] The Accuracy of Long-Term Earnings Forecasts for Industrial Firms; By: Chatfield, Robert E.; Moyer, R. Charles; Sisneros, Phillip M.; Quarterly Journal of Business & Economics, Summer 89, Vol. 28 Issue 3, p91, 14p.

economy because of the illogical outcome of the utility becoming larger than the economy.[3]

Q What is the intrinsic growth rate?

A The intrinsic growth rate, sometimes called a firm's internal growth rate, is another method of estimating a firm's long-term growth. The intrinsic growth rate is the product of a firm's forecasted earnings, forecasted book value, and the ratio of earnings that the firm does not pay out to common stockholders via dividends. A firm can either pay out the earnings to common stockholders as dividends or it can retain the earnings within the firm to finance new plant and equipment.

$$Intrinsic\ Growth = (\%\ of\ earnings\ retained)\ X\ (\%\ return\ on\ book\ value)$$

$$Intrinsic\ Growth = (1-(DPS/EPS))\ X\ (EPS/BVPS)$$

$$Intrinsic\ Growth = B\ x\ R$$

As the equation above shows, the intrinsic growth rate (BxR) is equal to the fraction of earnings retained within the company to finance growth (B) multiplied by the return a firm earns on its book value (R). For this equation, I use the Value-Line forecast for earnings, dividends, and book value per share.

Q Is there evidence to support your use of an intrinsic growth rate?

[3] Damodaran on Valuation: Security Analysis for Investment and Corporate Finance, 2nd Edition; Aswath Damodaran; p148.

A The intrinsic growth rate is regularly cited in finance textbooks as a reasonable method to estimate long-run, sustainable dividend growth for use in the DCF model.[4] Investment and finance researchers refer to the intrinsic growth rate as a primary determinate of a stock's value.[5]

[4] James C. Van Horne, Financial Management and Policy: Ninth Edition, p30 (1992).
[5] Zvi Bodie, Alex Kane, and Alan Marcus, Investments, pp. 477-81 (1989).

Capital Asset Pricing Model Analysis

Q Please describe the capital asset pricing model (CAPM).

A The CAPM offers an intuitive explanation of the positive linear relationship between risk and rates of return required by investors.[1] It is appealing to regulators because it meets the legal standards I discussed in Appendix A, as it incorporates current data from the financial markets and the unique risks of the utility in question.

$$Ke = Rf + Beta\ (Rm - Rf) \quad \text{or}$$

$$Ke = Rf + Beta\ (Rp)$$

where:

Ke = required return on equity

Rf = return on the risk-free security

Rm = expected return from the market

Rp = risk premium required by investors to purchase common stocks instead of risk-free securities often calculated as Rm - Rf

Beta = volatility of the security's or portfolio's return relative to the volatility of the market's return

Rf

The Rf estimate is the interest rate investors believe represents a riskless return. Although it is a simple concept, the answer is not universally agreed upon. The 90-day U.S. Treasury Bill yields are commonly used as the risk-free rate because they possess no default-risk and the time to maturity is short enough to minimize

[1] The theoretical support for the CAPM is the work done by Harry Markowitz ("Portfolio Selection," Journal of Finance, March, 1952). W.F. Sharpe added the concept of a risk-free rate of return to the Markowitz model ("A Simplified Model of Portfolio Analysis," Management Science, January, 1963).

risks from inflation. The U.S. Treasury Bond is also used as a risk-free rate of return. This is not universally accepted because the value of U.S. Treasury Bonds fluctuates as interest rates change. An investment in U.S. Treasury Bonds is only a risk-free investment if the investor plans to hold it until maturity. The risk-free instrument will have an effect on the results of the CAPM analysis. Whichever instrument is selected, it should be used consistently in the equation.

Beta

The beta coefficient measures the volatility of return earned by the utility's stock, relative to the volatility of the returns earned by the broader equity market. The broad equity market is frequently measured using the S&P 500 Index or Value-Line Composite of 1700 stocks. This measure provides a look at the risk and volatility of a stock relative to other investments. A stock with a beta of one is just as volatile as the market. A stock with a beta of .50 is half as volatile as the market, and at 1.25, it is twenty-five percent more volatile than the market.

Rm

Rm is the expected return on the stock market such as the S&P 500 Index or Value-Line Composite of 1700 stocks. Long-run historic market returns offer information on investors' expectations because the historic returns of the stock market indexes are known and widely disseminated to investors. These historic returns are viewed as representative of the future because they cover a long time span encompassing a wide array of stock market and economic cycles. One source of a long-term market return is Ibbotson and Associates' annual publication, Stocks, Bonds, Bills and Inflation, which reports annual returns of the S&P 500 from 1926 to the present.

Rp

The risk premium is the difference between investors' expected return from the stock market and their expected return from the risk-free investment over the same time period. The risk premium is written as Rm-Rf. The market return and the risk-free return should be taken from the same time period so as to measure the additional return required by investors to take on the risk of common stocks over the risk-free investment. Rp is calculated using the historic market returns discussed above and the historic returns on U.S. Treasury Bills or Bonds from the same time period.

THE VALUE LINE Investment Survey®

PAGES 4677-4688
File in page order in the *Selection & Opinion* binder.

PART 2 — *Selection & Opinion* — AUGUST 22, 2014

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The Quarterly Economic Review

In This Issue

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

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

VALUE LINE ECONOMIC AND STOCK MARKET COMMENTARY

"It was the best of times, it was the worst of times," to quote from the famed 19th century novelist Charles Dickens in describing the first half of 2014. On point, the initial stanza saw the U.S. gross domestic product, under duress from a string of weather-related disruptions, contract 2.1%; the April-through-June period then saw almost everything go right, with the consequent result being a GDP gain of 4.0%, which was well above the average view then calling for an increase of 3.0%.

So, what is the true picture? In our view, it currently lies somewhere in between. One logical reason to expect a reversion to the mean is that personal spending—a core component of GDP, as it accounts for some two-thirds of total business activity—swung less sharply than did GDP itself in the half. To wit, consumer spending went from a gain of 1.2% during the initial quarter to an increase of 2.5% over the following three months. A bigger swing factor was the second-quarter surge in inventories. Here, it should be noted that declining inventories had pared opening-period GDP, and in the process made a bad situation that much worse. Conversely, rising stockpiles then contributed handily to second-quarter GDP, as increasing optimism among some industrial and consumer goods makers helped swell output levels. Some averaging of the periods, as far as inventories and GDP are concerned, would seem to be the way to look at the economy going forward. That said . . .

We think the business advance will follow a fairly durable course, with growth exceeding 3.0% in both the current quarter and the final term of this year. Further, we would expect some broadening in the upturn by yearend, most specifically in the business investment category. On the other hand, we could see pressure applied should oil prices move higher, as such a move would likely restrain consumer activity. A recent softening in the housing market, if sustained, would logically undermine overall second-half performance as well. In all, some retreat from the re-

(Continued on page 4680)

VALUE LINE FORECAST FOR THE U.S. ECONOMY

Statistical Summary for 2014-2015

	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2014	2015
GDP AND OTHER KEY MEASURES									
Real Gross Domestic Product	*15988*	*16118*	*16245*	*16366*	*16495*	*16634*	*16778*	*16046*	*16568*
Total Light Vehicle Sales (Mill. Units)	*16.0*	*16.3*	*16.3*	*16.3*	*16.4*	*16.5*	*16.5*	*16.1*	*16.4*
Housing Starts (Million Units)	*0.95*	*1.05*	*1.15*	*1.20*	*1.30*	*1.35*	*1.40*	*1.02*	*1.31*
After-Tax Profits ($Bill.)	*2004*	*1999*	*1999*	*1963*	*2104*	*2099*	*2119*	*1977*	*2071*
ANNUALIZED RATES OF CHANGE									
Gross Domestic Product (Real)	*4.0*	*3.5*	*3.2*	*3.0*	*3.2*	*3.4*	*3.5*	*2.1*	*3.3*
GDP Deflator	*2.0*	*2.2*	*1.8*	*1.8*	*1.7*	*1.7*	*1.7*	*1.8*	*1.7*
CPI-All Urban Consumers	*2.5*	*2.8*	*2.0*	*2.0*	*1.8*	*1.7*	*1.8*	*2.3*	*1.8*
AVERAGE FOR THE PERIOD									
National Unemployment Rate	*6.5*	*6.2*	*6.2*	*6.2*	*6.1*	*6.0*	*5.9*	*6.4*	*6.1*
Prime Rate	*3.3*	*3.5*	*4.0*	*4.5*	*5.0*	*5.5*	*6.0*	*3.5*	*5.3*
10-Year Treasury Note Rate	*2.7*	*2.6*	*2.8*	*3.0*	*3.2*	*3.3*	*3.4*	*2.7*	*3.2*

Value Line Forecast for the U.S. Economy

	ACTUAL			ESTIMATED				
	2014:1	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4
GROSS DOMESTIC PRODUCT AND ITS COMPONENTS (2009 CHAIN WEIGHTED $) BILLIONS OF DOLLARS								
Final Sales	15783	*15873*	*15991*	*16117*	*16245*	*16365*	*16494*	*16629*
Total Consumption	10844	*10911*	*10992*	*11074*	*11150*	*11230*	*11314*	*11403*
Nonresidential Fixed Investment	2052	*2080*	*2115*	*2156*	*2188*	*2220*	*2258*	*2296*
Structures	442	*448*	*454*	*462*	*468*	*473*	*478*	*483*
Equipment & Software	975	*992*	*1013*	*1038*	*1058*	*1076*	*1097*	*1118*
Residential Fixed Investment	485	*494*	*513*	*534*	*557*	*579*	*600*	*617*
Exports	2027	*2074*	*2101*	*2132*	*2164*	*2190*	*2217*	*2244*
Imports	2474	*2501*	*2520*	*2551*	*2588*	*2620*	*2652*	*2691*
Federal Government	1117	*1115*	*1118*	*1120*	*1118*	*1113*	*1109*	*1106*
State & Local Governments	1750	*1763*	*1772*	*1777*	*1781*	*1785*	*1790*	*1794*
Gross Domestic Product	17043	*17296*	*17532*	*17750*	*17961*	*18180*	*18410*	*18647*
Real GDP (2009 Chain Weighted $)	15832	*15988*	*16118*	*16245*	*16366*	*16495*	*16634*	*16778*
PRICES AND WAGES-ANNUAL RATES OF CHANGE								
GDP Deflator	1.3	*2.0*	*2.2*	*1.8*	*1.8*	*1.7*	*1.7*	*1.7*
CPI-All Urban Consumers	1.9	*2.5*	*2.8*	*2.0*	*2.0*	*1.8*	*1.7*	*1.8*
PPI-Finished Goods	3.8	*5.0*	*2.5*	*2.0*	*1.7*	*1.7*	*1.8*	*2.0*
Employment Cost Index—Total Comp.	1.0	*2.0*	*2.3*	*2.3*	*2.3*	*2.5*	*2.7*	*2.8*
Productivity	-3.2	*1.0*	*2.0*	*1.5*	*1.0*	*1.3*	*1.5*	*1.5*
PRODUCTION AND OTHER KEY MEASURES								
Industrial Prod. (% Change, Annualized)	4.5	*1.5*	*3.5*	*3.2*	*3.5*	*3.2*	*3.0*	*3.2*
Factory Operating Rate (%)	76.3	*76.8*	*77.2*	*77.3*	*77.3*	*77.5*	*77.7*	*77.8*
Nonfarm Inven. Change (2009 Chain Weighted $)	26.9	*70.0*	*75.0*	*65.0*	*50.0*	*50.0*	*50.0*	*50.0*
Housing Starts (Mill. Units)	0.93	*0.95*	*1.05*	*1.15*	*1.20*	*1.30*	*1.35*	*1.40*
Existing House Sales (Mill. Units)	4.60	*4.80*	*5.10*	*5.30*	*5.50*	*5.60*	*5.65*	*5.70*
Total Light Vehicle Sales (Mill. Units)	15.6	*16.0*	*16.3*	*16.3*	*16.3*	*16.4*	*16.5*	*16.5*
National Unemployment Rate (%)	6.7	*6.5*	*6.2*	*6.2*	*6.2*	*6.1*	*6.0*	*5.9*
Federal Budget Surplus (Unified, FY, $Bill)	-241	*50.0*	*-150*	*-180*	*-250*	*50.0*	*-150*	*-170*
Price of Oil ($Bbl., U.S. Refiners' Cost)	97.63	*101.20*	*99.00*	*97.77*	*100.00*	*99.00*	*98.00*	*100.00*
MONEY AND INTEREST RATES								
3-Month Treasury Bill Rate (%)	0.1	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.5*	*0.8*
Federal Funds Rate (%)	0.1	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.5*	*0.7*
10-Year Treasury Note Rate (%)	2.8	*2.7*	*2.6*	*2.8*	*3.0*	*3.2*	*3.3*	*3.4*
Long-Term Treasury Bond Rate (%)	3.7	*3.5*	*3.4*	*3.4*	*3.7*	*3.9*	*4.0*	*4.0*
AAA Corporate Bond Rate (%)	4.4	*4.3*	*4.2*	*4.2*	*4.3*	*4.4*	*4.5*	*4.6*
Prime Rate (%)	3.3	*3.3*	*3.5*	*4.0*	*4.5*	*5.0*	*5.5*	*6.0*
INCOMES								
Personal Income (Annualized % Change)	3.1	*3.5*	*3.5*	*4.0*	*4.5*	*4.5*	*4.5*	*4.5*
Real Disp. Inc. (Annualized % Change)	1.5	*1.5*	*1.5*	*3.0*	*3.5*	*3.2*	*3.4*	*3.7*
Personal Savings Rate (%)	4.4	*4.0*	*4.0*	*4.2*	*4.5*	*4.5*	*4.5*	*4.6*
After-Tax Profits (Annualized $Bill)	1906	*2004*	*1999*	*1999*	*1963*	*2104*	*2099*	*2119*
Yr-to-Yr % Change	6.8	*10.0*	*7.0*	*5.0*	*3.0*	*5.0*	*5.0*	*6.0*
COMPOSITION OF REAL GDP-ANNUAL RATES OF CHANGE								
Gross Domestic Product	-2.1	*4.0*	*3.5*	*3.2*	*3.0*	*3.2*	*3.4*	*3.5*
Final Sales	-1.0	*2.3*	*3.0*	*3.2*	*3.2*	*3.0*	*3.2*	*3.3*
Total Consumption	1.2	*2.5*	*3.0*	*3.0*	*2.8*	*2.9*	*3.0*	*3.2*
Nonresidential Fixed Investment	1.6	*5.5*	*7.0*	*8.0*	*6.0*	*6.0*	*7.0*	*7.0*
Structures	2.9	*5.3*	*6.0*	*7.0*	*5.0*	*5.0*	*4.0*	*4.0*
Equipment & Software	-1.0	*7.0*	*9.0*	*10.0*	*8.0*	*7.0*	*8.0*	*8.0*
Residential Fixed Investment	-5.3	*7.5*	*16.0*	*18.0*	*18.0*	*17.0*	*15.0*	*12.0*
Exports	-9.2	*9.5*	*5.5*	*6.0*	*6.0*	*5.0*	*5.0*	*5.0*
Imports	2.2	*4.5*	*3.0*	*5.0*	*6.0*	*5.0*	*5.0*	*6.0*
Federal Government	-0.1	*-0.8*	*1.0*	*1.0*	*-1.0*	*-1.5*	*-1.5*	*-1.0*
State & Local Governments	-1.3	*3.1*	*2.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*

Value Line Forecast for the U.S. Economy

	ACTUAL					*ESTIMATED*				
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GROSS DOMESTIC PRODUCT AND ITS COMPONENTS (2009 CHAIN WEIGHTED $) BILLIONS OF DOLLARS										
Final Sales	14566	14718	14979	15304	15637	*15951*	*16453*	*16996*	*17540*	*18066*
Total Consumption	9843	10036	10264	10448	10700	*10955*	*11274*	*11635*	*12019*	*12380*
Nonresidential Fixed Investment	1633	1674	1803	1932	1991	*2101*	*2240*	*2375*	*2517*	*2643*
Structures	438	366	375	424	422	*452*	*476*	*514*	*565*	*610*
Equipment & Software	644	747	848	906	947	*1004*	*1087*	*1163*	*1233*	*1307*
Residential Fixed Investment	392	382	385	437	488	*506*	*588*	*659*	*692*	*712*
Exports	1584	1765	1898	1960	2020	*2084*	*2204*	*2314*	*2441*	*2588*
Imports	1976	2228	2358	2413	2440	*2512*	*2638*	*2783*	*2922*	*3054*
Federal Government	1218	1271	1236	1214	1145	*1117*	*1112*	*1100*	*1095*	*1089*
State & Local Governments	1871	1821	1761	1740	1748	*1766*	*1788*	*1806*	*1829*	*1856*
Gross Domestic Product	14418	14958	15518	16163	16768	*17405*	*18299*	*19262*	*20256*	*21281*
Real GDP (2009 Chain Weighted $)	14418	14779	15021	15389	15710	*16046*	*16568*	*17131*	*17680*	*18210*
PRICES AND WAGES-ANNUAL RATES OF CHANGE										
GDP Deflator	0.8	1.2	2.0	1.7	1.4	*1.8*	*1.7*	*1.8*	*1.9*	*2.0*
CPI-All Urban Consumers	-0.3	1.6	3.1	2.1	1.5	*2.3*	*1.8*	*1.8*	*2.0*	*2.3*
PPI-Finished Goods	-2.5	4.2	6.0	1.9	1.2	*3.3*	*1.8*	*2.0*	*2.2*	*2.4*
Employment Cost Index—Total Comp.	1.5	1.9	2.1	2.0	1.9	*1.9*	*2.6*	*2.9*	*3.1*	*3.3*
Productivity	3.2	3.2	0.5	1.5	0.5	*0.3*	*1.3*	*1.5*	*1.7*	*1.8*
PRODUCTION AND OTHER KEY MEASURES										
Industrial Prod. (% Change)	-11.3	5.7	3.3	3.8	2.9	*3.1*	*3.2*	*3.5*	*3.3*	*3.0*
Factory Operating Rate (%)	65.7	71.3	73.9	75.5	76.1	*76.9*	*77.6*	*78.0*	*78.0*	*78.0*
Nonfarm Inven. Change (2009 Chain Weighted $)	-146.0	65.9	39.7	68.7	58.3	*59.2*	*50.0*	*50.0*	*45.0*	*40.0*
Housing Starts (Mill. Units)	0.55	0.59	0.61	0.78	0.93	*1.05*	*1.36*	*1.55*	*1.60*	*1.50*
Existing House Sales (Mill. Units)	4.33	4.18	4.28	4.66	5.07	*4.95*	*5.61*	*5.70*	*5.60*	*5.50*
Total Light Vehicle Sales (Mill. Units)	10.4	11.6	12.7	14.4	15.5	*16.1*	*16.4*	*16.7*	*16.6*	*16.5*
National Unemployment Rate (%)	9.3	9.6	8.9	8.1	7.4	*6.4*	*6.1*	*5.8*	*5.6*	*5.4*
Federal Budget Surplus (Unified, FY, $Bill)	-1416	-1294	-1297	-1089	-680	*-521*	*-520*	*-500*	*-500*	*-550*
Price of Oil ($Bbl., U.S. Refiners' Cost)	59.20	76.70	101.75	101.00	100.47	*98.90*	*99.25*	*95.00*	*97.00*	*100.00*
MONEY AND INTEREST RATES										
3-Month Treasury Bill Rate (%)	0.2	0.1	0.1	0.1	0.1	*0.1*	*0.4*	*2.0*	*3.0*	*3.5*
Federal Funds Rate (%)	0.2	0.2	0.1	0.1	0.1	*0.1*	*0.4*	*2.0*	*3.5*	*4.0*
10-Year Treasury Note Rate (%)	3.3	3.2	2.8	1.8	2.4	*2.7*	*3.2*	*3.7*	*4.3*	*4.5*
Long-Term Treasury Bond Rate (%)	4.1	4.3	3.9	2.9	3.5	*3.5*	*3.9*	*4.4*	*4.8*	*5.0*
AAA Corporate Bond Rate (%)	5.3	4.9	4.6	3.7	4.2	*4.3*	*4.5*	*5.0*	*5.5*	*5.8*
Prime Rate (%)	3.3	3.3	3.3	3.3	3.3	*3.5*	*5.3*	*6.0*	*6.3*	*6.5*
INCOMES										
Personal Income (% Change)	-2.8	2.9	6.1	4.2	2.8	*3.5*	*4.5*	*5.3*	*5.5*	*5.3*
Real Disp. Inc. (% Change)	-0.5	1.1	2.4	2.0	0.7	*1.9*	*3.5*	*3.8*	*4.2*	*4.0*
Personal Savings Rate (%)	6.1	5.6	5.7	5.6	4.5	*4.2*	*4.5*	*5.0*	*5.5*	*6.0*
After-Tax Profits ($Bill)	1199	1464	1473	1755	1845	*1977*	*2071*	*2175*	*2306*	*2467*
Yr-to-Yr % Change	11.7	22.2	0.6	19.2	5.1	*7.2*	*4.8*	*5.0*	*6.0*	*7.0*
COMPOSITION OF REAL GDP-ANNUAL RATES OF CHANGE										
Gross Domestic Product	-2.8	2.5	1.6	2.3	2.2	*2.1*	*3.3*	*3.4*	*3.2*	*3.0*
Final Sales	-2.0	1.0	1.7	2.2	2.2	*2.0*	*3.1*	*3.3*	*3.2*	*3.0*
Total Consumption	-1.6	2.0	2.3	1.8	2.4	*2.4*	*2.9*	*3.2*	*3.3*	*3.0*
Nonresidential Fixed Investment	-15.6	2.5	7.7	7.2	3.0	*5.5*	*6.7*	*6.0*	*6.0*	*5.0*
Structures	-18.9	-16.4	2.3	13.1	-0.5	*7.0*	*5.3*	*8.0*	*10.0*	*8.0*
Equipment & Software	-22.9	15.9	13.6	6.8	4.6	*6.0*	*8.2*	*7.0*	*6.0*	*6.0*
Residential Fixed Investment	-21.2	-2.5	0.5	13.5	11.9	*3.8*	*16.1*	*12.0*	*5.0*	*3.0*
Exports	-9.1	11.5	6.9	3.3	3.0	*3.1*	*5.8*	*5.0*	*5.5*	*6.0*
Imports	-13.7	12.8	5.5	2.3	1.1	*2.9*	*5.0*	*5.5*	*5.0*	*4.5*
Federal Government	5.7	4.3	-2.7	-1.8	-5.7	*-2.4*	*-0.5*	*-1.0*	*-0.5*	*-0.5*
State & Local Governments	1.6	-2.7	-3.3	-1.2	0.5	*1.0*	*1.3*	*1.0*	*1.3*	*1.5*

The Quarterly Economic Review

Continued from cover page

cent 4.0% growth appears likely during the next couple of quarters. Thereafter, we would expect growth to hold in the 3.0%-3.5% range, on the assumption housing stays resilient, oil prices remain near recent levels, and the Federal Reserve proves able to effect a soft economic landing following the conclusion of its popular bond-buying efforts and subsequently moves to lift interest rates sometime in 2015.

From there, we would expect the up cycle to continue through the final years of this decade, making it more in league with its predecessor of the 1990s than its choppier counterpart in the opening decade of this century. One factor favoring sustainability for this expansion is its ongoing modest scope, with growth of 3.0%-3.5% now anticipated over the next 3 to 5 years. That would be understated relative to the norms of the fast-paced 1960s, the strong recovery in the late-1970s, and the sustained up cycles of the 1980s and 1990s.

There are some notable risks to this orderly economic progression, however. And, as we opined three and six months ago, the focal point of this risk is overseas. To be sure, Washington and the Federal Reserve can provide occasional surprises, but these are typically manageable. For example, problems stemming from fiscal policy miscues often induce the Fed to undertake remedial action, such as the initiation of the popular bond-buying efforts a few years back. The situation on the foreign front is much less predictable and is rarely remedied easily. So far, our economic expansion—which now has entered its sixth year—has been able to press forward despite the headwinds that are affecting Eastern Europe and the Middle East, the on-again, off-again, recovery in Western Europe (where Italy is now back in recession), and the uncertain growth path in China. Should such difficulties worsen, the durability of our up cycle might be challenged. But even if we carry on successfully, the global risks probably will remain elevated for some time.

SOME SPECIFICS

Economic Growth: As noted, after a weather-impacted start, in which the nation's gross domestic product contracted by a recession-like 2.1% in the opening period, things turned around nicely in the spring. On point, notable gains in nonresidential fixed investment, consumer expenditures, exports, and inventory investment all helped push GDP forward by a much better-than-expected 4.0% during the second quarter. Now, on the strength of stellar gains in manufacturing and nonmanufacturing, better trends in employment, and a narrowing trade deficit, the economy should keep a decent share of that momentum in place during the back half of this year and into 2015 (Charts 1 and 2). Our sense is that growth will average 3.0%-3.5% over the next four to six quarters.

Our outlook for the following few years is less well defined. Much of the outcome then could be predicated on the course of global events, the level of success attained by the Fed in concluding its unprecedented monetary easing (including its bond buying during the short term and its interest-rate policies over the longer stretch), and the pace and scope of inflation. Our sense is that occasional pricing pressures will evolve later in the decade, but, for now, continuing inflation stability seems a good bet. In general, we think the expansion will last through decade's end, with just a few wrinkles along the way.

Inflation: As indicated, inflation may start to trend selectively higher over the next several years, but our sense is that such increases will be modest and come in fits and starts rather than all at once. As a recovery matures, price pressures are logical. The Fed, in fact, has opined that long term, it expects inflation to return to more normalized levels, implying that the drop below 2% in the Producer and Consumer Price Indexes in 2013 was largely transitory. Meanwhile, as wage growth quickens in a better job market, energy costs increase due to accelerating GDP growth globally, and the call for goods and services produced abroad picks up (as a likely outgrowth of better times), there would figure to be some gradual step up in pricing pressures. At this point, though, there appears to be sufficient industrial capacity around to avoid the shortages that contributed directly to very severe bouts of inflation in the 1970s and early 1980s (Chart 3).

Interest Rates: The question here is not whether the Fed will opt to raise interest rates, but rather when it will do so. The consensus is that the lead bank will take that step in 2015—the unknown being if it will do so early in the year, as some now maintain, or wait until midyear, as others suggest. Our view is that the Fed has followed a cautious path all along and that it will likely not veer from that course under the stewardship of the dovish Janet Yellen. Thus, in the absence of a flareup of inflation going forward, we think the bank will hold off on any raising of borrowing rates until about a year from now—even as it moves to wind up its bond-buying effort in the fourth quarter of this year (Chart 4).

Corporate Profits: Corporate America put in a solid performance in the recently ended second-quarter reporting season, with the estimated earnings growth rate for the period having been fairly close to double digits, led by the telecom services sector. In all, such improvement was better than the 7% rate of growth that had been forecast at the start of the second stanza. Such outperformance is rather rare, having been achieved just three times since the second quarter of 2011. Also, nine of the ten major sectors had higher growth rates than had been predicted at the start of the reporting season in late June. On the other hand, negative guidance for the third quarter is well ahead of positive guidance, which is normal at this stage of the cycle, but

The Quarterly Economic Review

is still something to watch for any long-term trends.

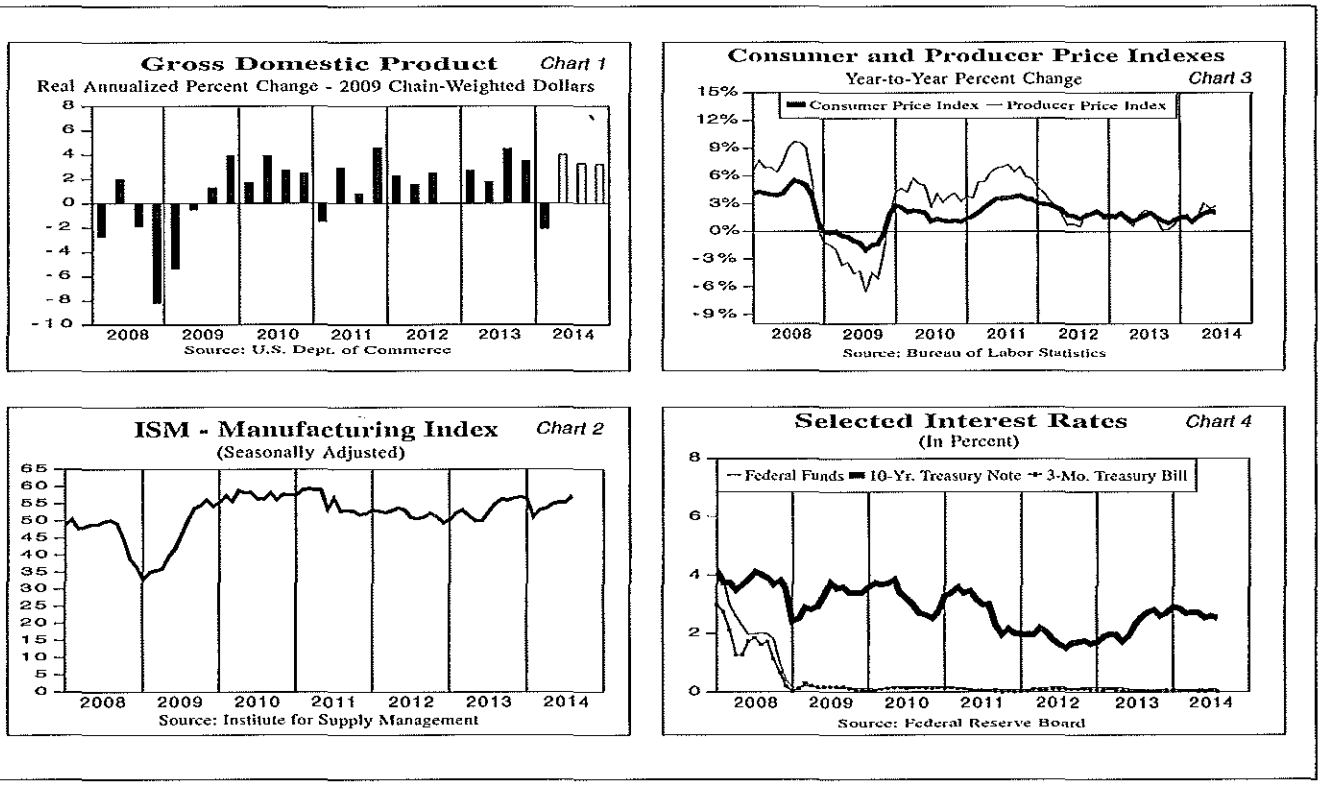
All told, the corporate outlook remains rather decent for the rest of this year and into 2015, with the presumption being that an expanding economy, continued low interest rates (even with some probable increases in 2015), effective cost controls, and the current limited wage pressures will all continue. Of course, earnings have been gaining since almost the start of the business recovery back in 2009, and it is only logical to expect comparisons to gradually grow more difficult. Still, absent new business reversals, which can often pop up, as one did in the first quarter, earnings should trend modestly higher over the next 3 to 5 years.

THE STOCK MARKET

The market's up cycle is now in its sixth year, having begun in the final stages of the 2007-2009 recession. And it has been a bull market for the ages, with the Dow Jones Industrial Average rising from less than 6,500, at its bear market nadir, to more than 17,000 at its highs earlier this year. But now, global conflict is continuing, particularly between Russia and the West, and across vast reaches of the Middle East. The fallout from such ongoing strife has led to a difficult stretch for our equity market. On point, after a poor start this year and a subsequent recovery to a series of all-time highs in the Dow and the S&P 500 Index, stocks have faltered to some extent. As of now, we are still well shy of a correction, which is usually defined as a cumulative drop of 10%. Still, the peak-to-trough decline of more than 3% in the Dow is sufficient to awaken some fears of a correction later on, especially as the likely cause of this weakness—the conflicts globally—defies solution.

Of course, event risk is always a factor in stock market performance and one that even intrepid investors need to be cognizant of at all times. It is just as true that there are times when the stock market is vulnerable. This is one of those times, as equities have been roaring ahead for years—and particularly so during the past 18 months. And, not surprisingly, the market is tired after accumulating such gains. That said, it is also true that at some point, Wall Street likely will return to the fundamentals, which for now, as they relate to earnings, the economy, and interest rates, are still favorable. That's even though the Fed seems likely to move to a slightly less accommodative stance over the next year. So, with valuations now a bit less frothy than at the market's peak, stocks appear rather attractive.

Conclusion: We are retaining our optimism on the equity market, even as the winds of international conflict continue to blow across parts of the world. Please refer to the inside back cover of *Selection & Opinion* for our statistically-based Asset Allocation Model's current reading.



Model Portfolios: Recent Developments

PORTFOLIO I

We are selling our position in Chicago Bridge & Iron this week. Although CBI stock remains favorably ranked for Timeliness, its recent performance has been disappointing, reflecting the market's concern over earnings quality at the engineering, procurement, and construction company. It appears a large acquisition, combined with the accounting for costs under long-term construction contracts, have left Chicago Bridge's earnings stream cash-poor. True, the company has recently landed a couple of projects that should improve the situation, but the market did not seem to take much notice. Adding it all up, and given our near-term performance orientation, we have decided that it is best to cut our losses on this holding.

The open slot will be taken by *Lear Corporation* shares. The company supplies seating and electrical power management systems to the automotive industry, and its revenue, earnings, and cash flow have been on an upward trend since emerging from bankruptcy in late 2009. Meanwhile, its latest earnings report made for good reading, with *Lear* increasing its revenue, earnings, and volume forecasts for this year. At this juncture, the prospects for 2015 look favorable, as well. That said, *LEA* stock cannot be said to trading at a bargain price, though it has taken a bit of a breather lately, providing a respectable entry point, in our view.

PORTFOLIO II

Portfolio II member *Intel* is making nice progress expanding its product offering. The company recently unveiled a new manufacturing technology to produce super-thin chips targeting tablets and other wireless devices that operate without a cooling fan. This enables the use of batteries that are half the size of current versions, yet offer twice the speed. *Intel* has been slow to enter the tablet market, but this is a big step forward. Separately, the tech giant agreed to pay $650 million (a drop in the bucket for *Intel*) to Avago for a business that will broaden its footprint in networking and wireless sources. The first of these announcements helped the share price to recover from a stumble during the first week of August.

The global benchmark price of oil hit a 13-month low on August 13th, giving us pause on our holdings *ConocoPhillips* and *Total*. We're not taking action at this time, however. A supply disruption in Russia, Iraq, or elsewhere could send oil prices soaring. *ConocoPhillips* has significantly reduced its risk profile, most recently with a $1.5 billion sale of Nigerian assets. As for *Total*, it is aggressively cutting costs, and lower oil prices could benefit its refining business. If oil prices continue to fall, though, some profit-taking would be in order.

We are not making any changes to Portfolio II this week.

PORTFOLIO III

Portfolio III and the broader market are proving resilient once again, much to the chagrin of Wall Street's long-suffering bears. Despite a host of concerns overseas, from the crisis in Ukraine to signs of a slowdown in the euro zone, U.S. stocks are grinding their way back toward recent highs. This is likely attributable to improvements in the domestic economy, including the labor situation. (From a historical standpoint, major corrections seldom occur when economic fundamentals are sound.) In addition, corporate earnings for the June quarter were pretty solid. And equities still appear to be the best deal for investors, particularly with bond yields at multi-month lows.

Against this backdrop, our group, which emphasizes attractively valued companies with good long-range prospects, continues to sit on a healthy year-to-date gain. Among the top performers of late have been robotic surgery leader *Intuitive Surgical* and commodity powerhouse *U.S. Steel*. Shares of *Hormel*, a meatpacker turned valued-added packaged food outfit, also continue to trade near record levels, as investors look to add quality to their portfolios.

Hormel remains one of our favorite names to be sure and an ideal candidate for conservative buy-and-hold investors. Over the next few years, the company should benefit from a further move up the value ladder and synergies stemming from the $700 million Skippy acquisition. Indeed, we expect the underleveraged peanut butter brand to support growth in the U.S. and key emerging markets, most notably China. We are making no changes this week.

PORTFOLIO IV

The U.S. stock market headed lower during the first days of August, but has since found some support. Some of the recent volatility may well be a reaction to ongoing political tensions in Ukraine and the Middle East, as well as concerns about equity valuations. Investors continue to worry about the Federal Reserve's plans and the direction of interest rates. This can weigh heavily on higher-yielding issues, such as real estate investment trusts, telecoms, and utilities. Portfolio IV has a large number of these holdings, which have not been immune to the recent market pullback.

Notably, our utility stocks have been somewhat weak during the third quarter. While there have been slight declines in the large names, such as *Southern Company* and *Consolidated Edison*, *Alliant Energy*, a smaller operator, has slipped a bit further. Elsewhere, *Mattel* remains a weak spot, as the toymaker works to keep its top brands current. Finally, shares of *Ensco*, a contract driller, remain out of favor. Still, we are cautiously holding onto this issue, which carries an above-average Timeliness rank and offers a dividend yield of roughly 6%.

We are making no changes to Portfolio IV this week.

PORTFOLIO I: STOCKS WITH ABOVE-AVERAGE YEAR-AHEAD PRICE POTENTIAL

(primarily suitable for more aggressive investors)

Ratings & Reports Page	Ticker	Company	Recent Price	Time-liness	Safety	P/E	Yield%	Beta	Financial Strength	Industry Name
1601	ACT	Actavis plc	203.16	1	2	14.3	Nil	0.75	B++	Drug
945	ARRS	Arris Group	30.64	2	3	11.2	Nil	1.10	B+	Telecom. Equipment
557	AVY	Avery Dennison	47.83	2	3	15.2	2.9	1.20	A	Chemical (Specialty)
1325	AVT	Avnet, Inc.	41.66	2	3	9.5	1.5	1.20	A	Electronics
947	BRCM	Broadcom Corp. 'A'	37.59	2	3	11.6	1.3	1.20	B++	Telecom. Equipment
2439	CE	Celanese Corp.	59.10	1	3	10.5	1.7	1.50	B++	Chemical (Diversified)
2441	EMN	Eastman Chemical	80.00	1	3	11.3	1.8	1.30	A	Chemical (Diversified)
2215	FL	Foot Locker	50.29	2	3	14.8	1.7	1.05	B++	Retail (Softlines)
806	HCA	HCA Holdings	65.41	1	3	16.7	Nil	1.25	B+	Medical Services
999	LEA	Lear Corp.	96.18	1	3	11.9	0.8	1.15	B+	Auto Parts
1000	MGA	Magna Int'l 'A'	110.93	1	3	12.5	1.4	1.20	A	Auto Parts
345	NSC	Norfolk Southern	102.45	2	2	15.6	2.2	1.05	A	Railroad
2318	RCL	Royal Caribbean	61.02	2	3	16.1	1.6	1.65	B+	Recreation
325	R	Ryder System	86.74	1	3	15.2	1.7	1.30	B+	Trucking
312	LUV	Southwest Airlines	28.70	1	3	21.6	0.8	1.05	B+	Air Transport
134	TMO	Thermo Fisher Sci.	120.03	2	2	17.8	0.5	1.00	A	Precision Instrument
2431	TDW	Tidewater Inc.	49.67	1	3	10.9	2.4	1.10	B+	Oilfield Svcs/Equip.
1940	THS	TreeHouse Foods	78.89	2	3	20.5	Nil	0.60	B++	Food Processing
730	TGI	Triumph Group	64.85	2	3	11.1	0.2	1.05	B++	Aerospace/Defense
1345	VSH	Vishay Intertechnology	14.96	2	3	14.1	1.6	1.45	B+	Electronics

To qualify for purchase in the above portfolio, a stock must have a Timeliness Rank of 1 or 2 and a Financial Strength Rating of at least B+. If a stock's Timeliness rank falls to 3, or lower, it will be automatically removed. Stocks in the above portfolio are selected and monitored by Charles Clark, Associate Research Director.

PORTFOLIO II: STOCKS FOR INCOME AND POTENTIAL PRICE APPRECIATION

(primarily suitable for more conservative investors)

Ratings & Reports Page	Ticker	Company	Recent Price	Time-liness	Safety	P/E	Yield%	Beta	Financial Strength	Industry Name
542	GAS	AGL Resources	51.14	2	1	13.7	3.8	0.80	A	Natural Gas Utility
707	BA	Boeing	120.47	3	1	16.1	2.5	1.05	A++	Aerospace/Defense
2509	CM.TO	Can. Imperial Bank	100.23	3	1	11.8	4.0	0.70	A+	Bank
2396	COP	ConocoPhillips	80.42	NR	1	12.2	3.6	NMF	A++	Petroleum (Producing)
2413	ESV	Ensco plc	48.86	2	3	25.7	6.1	1.20	B++	Oilfield Svcs/Equip.
1363	INTC	Intel Corp.	33.13	1	1	14.8	2.7	0.95	A++	Semiconductor
1164	IP	Int'l Paper	47.80	3	3	17.6	2.9	1.25	B+	Paper/Forest Products
1923	K	Kellogg	63.45	3	1	15.7	3.1	0.60	A	Food Processing
1924	KRFT	Kraft Foods Group	56.10	NR	2	17.4	3.7	NMF	A	Food Processing
1975	TAP	Molson Coors Brewing	72.25	3	2	16.9	2.0	0.80	B++	Beverage
1627	PFE	Pfizer, Inc.	28.08	3	1	15.7	3.7	0.85	A++	Drug
2522	RY.TO	Royal Bank of Canada	79.64	3	2	13.4	3.7	0.75	A	Bank
1936	SJM	Smucker (J.M.)	102.59	3	1	17.0	2.5	0.70	A++	Food Processing
1185	SON	Sonoco Products	39.58	3	2	15.5	3.2	0.95	A	Packaging & Container
1729	SNA	Snap-on Inc.	122.28	3	2	17.6	1.4	1.10	A+	Machinery
518	TOT	Total ADR	64.09	2	1	10.3	5.1	1.20	A++	Petroleum (Integrated)
777	TRV	Travelers Cos.	91.09	3	1	10.3	2.4	0.75	A++	Insurance (Prop/Cas.)
346	UNP	Union Pacific	99.67	3	1	17.4	2.0	1.00	A++	Railroad
1548	WPC	W.P. Carey Inc.	67.86	NR	3	31.0	5.4	NMF	B+	R.E.I.T.
1171	WY	Weyerhaeuser Co.	32.33	NR	3	21.4	3.6	1.10	B+	Paper/Forest Products

To qualify for purchase in the above portfolio, a stock must have a yield that is in the top half of the Value Line *universe, a Timeliness Rank of at least 3 (unranked stocks may be selected occasionally), and a Safety Rank of 3 or better. If a stock's Timeliness Rank falls below 3, that stock will be automatically removed. (Occasionally a stock will be unranked (NR), usually because of a short trading history or a major corporate reorganization.) Stocks are selected and monitored by Craig Sirois, Editorial Analyst.*

PORTFOLIO III: STOCKS WITH LONG-TERM PRICE GROWTH POTENTIAL

(primarily suitable for investors with a 3- to 5-year horizon)

Ratings & Reports Page	Ticker	Company	Recent Price	Time-liness	Safety	P/E	Yield%	Beta	3- to 5-yr Appreciation Potential	Industry Name
1579	ATI	Allegheny Techn.	40.28	5	3	69.4	1.8	1.65	0 - 60%	Metals & Mining (Div.)
760	ALL	Allstate Corp.	60.15	3	1	11.7	1.9	0.90	60 - 90	Insurance (Prop/Cas.)
1398	AAPL	Apple Inc.	95.97	2	1	13.9	2.0	0.85	35 - 60	Computers/Peripherals
2507	BK	Bank of New York Mellon	38.42	4	3	14.9	1.8	1.15	45 - 110	Bank
969	CVS	CVS Caremark Corp.	78.67	3	1	17.3	1.4	0.85	15 - 40	Pharmacy Services
2329	DIS	Disney (Walt)	87.21	3	1	20.8	1.0	1.05	10 - 30	Entertainment
2308	HOG	Harley-Davidson	61.71	3	3	15.2	1.8	1.30	20 - 85	Recreation
1920	HRL	Hormel Foods	46.78	3	1	19.7	1.8	0.70	20 - 50	Food Processing
187	ISRG	Intuitive Surgical	451.53	4	3	35.9	Nil	0.90	-5 - 45	Med Supp Invasive
1000	MGA	Magna Int'l 'A'	110.93	1	3	12.5	1.4	1.20	0 - 55	Auto Parts
1596	MOS	Mosaic Company	46.53	3	3	15.8	2.6	1.20	40 - 105	Chemical (Basic)
2421	NOV	National Oilwell Varco	81.89	2	3	13.4	2.2	1.30	40 - 115	Oilfield Svcs/Equip.
2111	PVH	PVH Corp.	114.27	3	3	14.7	0.1	1.30	25 - 80	Apparel
2186	PETM	PetSmart, Inc.	68.48	2	2	15.5	1.2	0.80	25 - 70	Retail (Hardlines)
416	RSG	Republic Services	38.65	3	2	18.7	2.9	0.85	15 - 55	Environmental
963	QCOM	Qualcomm Inc.	74.14	2	1	12.9	2.3	0.95	30 - 55	Telecom. Equipment
1006	TEN	Tenneco Inc.	63.66	1	4	13.5	Nil	1.70	10 - 80	Auto Parts
755	X	U.S. Steel Corp.	35.68	1	3	60.5	0.6	1.70	-15 - 25	Steel
818	UNH	UnitedHealth Group	80.22	3	1	13.8	1.9	0.85	25 - 50	Medical Services
2366	WYNN	Wynn Resorts	200.20	3	3	22.6	2.5	1.35	5 - 60	Hotel/Gaming

To qualify for purchase in the above portfolio, a stock must have worthwhile and longer-term appreciation potential. Among the factors considered for selection are a stock's Timeliness and Safety Rank and its 3- to 5-year appreciation potential. (Occasionally a stock will be unranked (NR), usually because of a short trading history or a major corporate reorganization.) Stocks in the above portfolio are selected and monitored by Justin Hellman, Editorial Analyst.

PORTFOLIO IV: STOCKS WITH ABOVE-AVERAGE DIVIDEND YIELDS

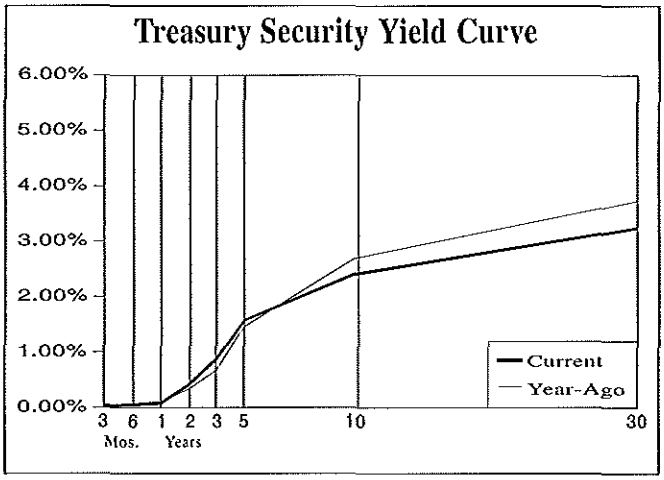
(primarily suitable for investors interested in current income)

Ratings & Reports Page	Ticker	Company	Recent Price	Time-liness	Safety	P/E	Yield%	Beta	Financial Strength	Industry Name
922	T	AT&T Inc.	34.64	2	1	12.8	5.4	0.75	A++	Telecom. Services
903	LNT	Alliant Energy	55.86	3	2	15.8	3.7	0.80	A	Electric Util. (Central)
1033	BT	BT Group ADR	63.26	2	3	13.3	2.9	1.10	B++	Telecom. Utility
1990	BTI	Brit. Amer Tobac. ADR	116.46	3	2	16.1	3.9	0.80	B++	Tobacco
140	ED	Consol. Edison	56.10	3	1	14.7	4.6	0.60	A+	Electric Utility (East)
1593	DOW	Dow Chemical	51.80	2	3	16.7	2.9	1.40	B++	Chemical (Basic)
1594	DD	Du Pont	65.49	3	1	15.8	2.9	1.10	A++	Chemical (Basic)
2413	ESV	Ensco plc	48.86	2	3	25.7	6.1	1.20	B++	Oilfield Svcs/Equip.
1363	INTC	Intel Corp.	33.13	1	1	14.8	2.7	0.95	A++	Semiconductor
1164	IP	Int'l Paper	47.80	3	3	17.6	2.9	1.25	B+	Paper/Forest Products
1194	KMB	Kimberly-Clark	107.62	3	1	18.7	3.1	0.60	A++	Household Products
2313	MAT	Mattel, Inc.	35.24	4	2	15.8	4.3	0.90	A	Recreation
364	MCD	McDonald's Corp.	93.56	3	1	16.3	3.5	0.60	A++	Restaurant
1370	MCHP	Microchip Technology	46.58	2	3	16.9	3.0	1.05	A	Semiconductor
2613	PAYX	Paychex, Inc.	41.41	4	1	23.1	3.7	0.90	A	IT Services
1993	RAI	Reynolds American	57.14	4	2	15.5	4.7	0.65	B+	Tobacco
515	RDSB	Royal Dutch Shell 'B'	84.12	2	1	11.7	4.5	1.05	A++	Petroleum (Integrated)
1185	SON	Sonoco Products	39.58	3	2	15.5	3.2	0.95	A	Packaging & Container
151	SO	Southern Co.	43.22	3	2	16.4	5.0	0.60	A	Electric Utility (East)
421	WM	Waste Management	45.48	2	2	19.0	3.3	0.85	A	Environmental

To qualify for purchase in the above portfolio, a stock must have a yield that is at least 1% above the median for the Value Line *universe, a Timeliness Rank of at least 3, and a Financial Strength Rating of at least B+. If a stock's Timeliness Rank falls below 4, that stock will be automatically removed. Stocks are selected and monitored by Adam Rosner, Senior Analyst.*

Selected Yields

	Recent (8/13/14)	3 Months Ago (5/14/14)	Year Ago (8/13/13)
TAXABLE			
Market Rates			
Discount Rate	0.75	0.75	0.75
Federal Funds	0.00-0.25	0.00-0.25	0.00-0.25
Prime Rate	3.25	3.25	3.25
30-day CP (A1/P1)	0.10	0.10	0.15
3-month LIBOR	0.23	0.23	0.26
Bank CDs			
6-month	0.05	0.06	0.08
1-year	0.09	0.09	0.10
5-year	0.51	0.53	0.62
U.S. Treasury Securities			
3-month	0.03	0.02	0.05
6-month	0.05	0.05	0.07
1-year	0.08	0.08	0.11
5-year	1.58	1.59	1.47
10-year	2.42	2.55	2.71
10-year (inflation-protected)	0.20	0.35	0.46
30-year	3.24	3.37	3.74
30-year Zero	3.42	3.58	4.02
Mortgage-Backed Securities			
GNMA 5.5%	1.69	1.75	2.42
FHLMC 5.5% (Gold)	1.87	1.78	2.57
FNMA 5.5%	1.70	1.66	2.25
FNMA ARM	1.83	1.86	2.11
Corporate Bonds			
Financial (10-year) A	3.48	3.50	4.09
Industrial (25/30-year) A	4.28	4.24	4.74
Utility (25/30-year) A	4.14	4.22	4.59
Utility (25/30-year) Baa/BBB	4.50	4.56	5.10
Foreign Bonds (10-Year)			
Canada	2.07	2.29	2.63
Germany	1.03	1.36	1.81
Japan	0.52	0.60	0.74
United Kingdom	2.44	2.58	2.60
Preferred Stocks			
Utility A	5.93	5.93	6.13
Financial BBB	6.48	6.42	6.47
Financial Adjustable A	5.51	5.51	5.51



	Recent (8/13/14)	3 Months Ago (5/14/14)	Year Ago (8/13/13)
TAX-EXEMPT			
Bond Buyer Indexes			
20-Bond Index (GOs)	4.31	4.31	4.73
25-Bond Index (Revs)	4.89	4.97	5.05
General Obligation Bonds (GOs)			
1-year Aaa	0.09	0.13	0.18
1-year A	0.53	0.66	0.83
5-year Aaa	1.20	1.28	1.37
5-year A	1.87	2.01	2.17
10-year Aaa	2.24	2.44	2.99
10-year A	3.41	3.62	3.83
25/30-year Aaa	3.29	3.84	4.31
25/30-year A	5.15	5.59	5.93
Revenue Bonds (Revs) (25/30-Year)			
Education AA	4.64	4.97	5.20
Electric AA	4.72	5.04	5.28
Housing AA	5.14	5.46	5.68
Hospital AA	5.16	5.21	5.28
Toll Road Aaa	4.45	4.62	5.02

Source: Bloomberg Finance L.P.

Federal Reserve Data

BANK RESERVES
(Two-Week Period; in Millions, Not Seasonally Adjusted)

	Recent Levels			Average Levels Over the Last...		
	8/6/14	7/23/14	Change	12 Wks.	26 Wks.	52 Wks.
Excess Reserves	2711094	2632603	78491	2593839	2566349	2437901
Borrowed Reserves	260	235	25	188	149	187
Net Free/Borrowed Reserves	2710834	2632368	78466	2593651	2566200	2437715

MONEY SUPPLY
(One-Week Period; in Billions, Seasonally Adjusted)

	Recent Levels			Ann'l Growth Rates Over the Last...		
	7/28/14	7/21/14	Change	3 Mos.	6 Mos.	12 Mos.
M1 (Currency+demand deposits)	2852.2	2847.2	5.1	11.2%	15.4%	11.5%
M2 (M1+savings+small time deposits)	11467.7	11438.5	29.2	7.7%	7.5%	6.8%

Source: United States Federal Reserve Bank

Closing Stock Market Averages as of Press Time

	8/6/2014	8/13/2014	%Change 1 week	%Change 12 months
Dow Jones Industrial Average	16443.34	16651.80	+1.3%	+7.8%
Standard & Poor's 500	1920.24	1946.72	+1.4%	+14.9%
N.Y. Stock Exchange Composite	10653.42	10756.18	+1.0%	+11.7%
NASDAQ Composite	4355.05	4434.13	+1.8%	+20.3%
NASDAQ 100	3874.27	3949.20	+1.9%	+25.7%
Amex Major Market Index	2681.41	2690.13	+0.3%	+15.0%
Value Line (Geometric)	483.41	488.96	+1.1%	+9.3%
Value Line (Arithmetic)	4427.02	4481.07	+1.2%	+13.4%
London (FT-SE 100)	6636.16	6656.68	+0.3%	+0.7%
Tokyo (Nikkei)	15159.79	15213.63	+0.4%	+9.7%
Russell 2000	1125.55	1141.78	+1.4%	+8.5%

Major Insider Transactions†

PURCHASES

Latest Full-Page Report	Timeliness Rank	Company	Insider, Title	Date	Shares Traded	Shares Held	Price Range	Recent Price
2435	4	Air Products & Chem.	S. Ghasemi, Chair.	8/1/14	25,000	77,026	$131.79-$133.55	131.99
177	3	CONMED Corp.	C.R. Hartman, CEO	7/31/14	10,000	11,000	$39.25	36.53
141	3	Dominion Resources	M.J. Kington, Dir.	8/6/14	15,000	23,229	$64.87	67.49
2360	-	Penn Nat'l Gaming	T.J. Wilmott, CEO	8/4/14-8/5/14	50,000	238,623	$10.44-$10.46	10.90
416	3	Republic Services	W.L. Nutter, Dir.	7/31/14	30,000	30,332	$38.04	38.65
1143	-	Tile Shop Hldgs.	W.E. Watts, Dir.	8/1/14	40,000	319,814	$9.96	10.93
1939	4	Tootsie Roll Ind.	L. Lewis Brent, Dir.	7/31/14	15,000	23,395	$26.91	27.52

SALES

Latest Full-Page Report	Timeliness Rank	Company	Insider, Title	Date	Shares Traded	Shares Held	Price Range	Recent Price
982	3	BorgWarner	J.J. Gasparovic, V.P.	8/6/14	60,000	79,906	$61.00	61.66
1523	3	Equity Residential	S. Zell, Chair.	7/31/14-8/4/14	2,000,000	1,689,210	$64.04-$65.67	64.90
2626	3	Google, Inc.	S. Brin *	8/5/14	83,334	22,818,612	$562.89-$571.36	562.73
2628	5	LinkedIn	J. Weiner, CEO	8/1/14-8/5/14	124,875	209,641	$192.77-$205.44	213.38
2586	4	Microsoft Corp.	W.H. Gates, Dir.	7/29/14-7/30/14	7,589,164	NA	$43.33-$44.09	43.52
721	2	Northrop Grumman	W.G. Bush, Chair.	8/1/14	30,000	120,000	$123.96	123.03
2115	4	Under Armour	K.A. Plank, Chair.	7/31/14-8/1/14	405,000	43,546	$66.71-$68.51	68.36

* *Beneficial owner of more than 10% of common stock.*

† *Includes only large transactions in U.S.-traded stocks; excludes shares held in the form of limited partnerships, excludes options & family trusts.*

Major Insider Transactions are obtained from Vickers Stock Research Corporation.

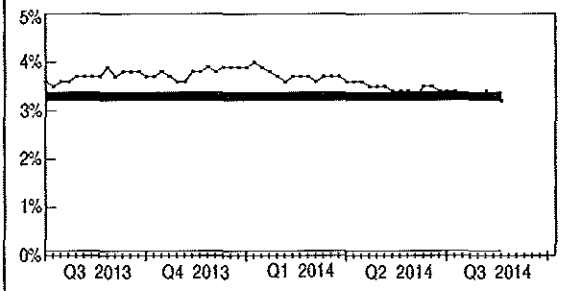
Market Monitor

Valuations and Yields	8/13	8/6	13-week range	50-week range	Last market top (5-21-2013)	Last market bottom (3-9-2009)
Median price-earnings ratio of VL stocks	17.9	18.3	17.8 - 18.9	17.0 - 18.9	17.5	10.3
P/E (using 12-mo. est'd EPS) of DJ Industrials	14.5	14.8	14.5 - 15.2	13.6 - 15.8	14.0	17.3
Median dividend yield of VL stocks	2.1%	2.1%	2.0 - 2.1%	1.9 - 2.1%	2.1%	4.0%
Div'd yld. (12-mo. est.) of DJ Industrials	2.4%	2.4%	2.3 - 2.4%	2.2 - 2.6%	2.5%	4.0%
Prime Rate	3.3%	3.3%	3.3 - 3.3%	3.3 - 3.3%	3.3%	3.3%
Fed Funds	0.1%	0.1%	0.1 - 0.1%	0.1 - 0.1%	0.1%	0.2%
91-day T-bill rate	0.0%	0.0%	0.0 - 0.0%	0.0 - 0.1%	0.0%	0.3%
AAA Corporate bond yield	4.1%	4.2%	4.1 - 4.3%	4.1 - 4.7%	3.9%	5.5%
30-year Treasury bond yield	3.2%	3.3%	3.2 - 3.5%	3.2 - 4.0%	3.2%	3.7%
Bond yield minus average earnings yield	-1.4%	-1.3%	-1.5 - -1.0%	-1.5 - -0.8%	-1.8%	-4.3%
Market Sentiment						
Short interest/avg. daily volume (5 weeks)	22.7	22.6	20.5 - 22.7	17.9 - 22.7	19.0	8.6
CBOE put volume/call volume	.96	1.13	.77 - 1.13	.67 - 1.31	.91	.93

VALUE LINE ASSET ALLOCATION MODEL

(Based only on economic and financial factors)

	Current (last adjusted at market open 5/12/14)	Previous (before 5/12/14)
Common Stocks	60%-70%	55%-65%
Cash and Treasury Issues	40%-30%	45%-35%



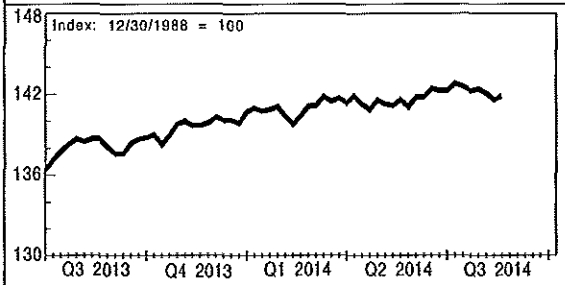
INTEREST RATES

Prime Rate

30-Year Treasury Bond

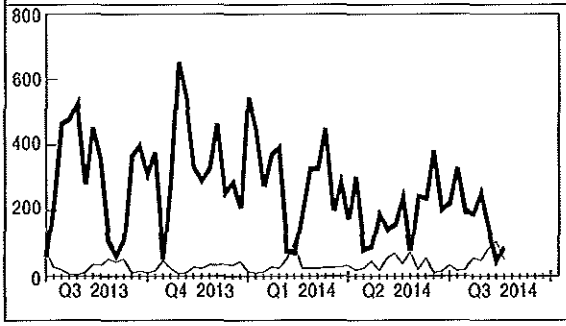
Federal Funds

	Recent	Previous Week
Prime Rate	3.3%	3.3%
30-Yr. Treasury	3.2%	3.3%
Fed Funds	0.1%	0.1%



VALUE LINE UNIVERSE

	Recent	Previous Week
Advances	1144	396
Declines	550	1307
Issues Covered	1711	1711
Market Value ($ Trillion)	26.711	26.665



VALUE LINE UNIVERSE

New Highs

New Lows

	Recent	Previous Week
New Highs	87	49
New Lows	51	107

INDUSTRY PRICE PERFORMANCE LAST SIX WEEKS ENDING 8/12/2014

7 Best Performing Industries

Medical Services	+3.8%
Precious Metals	+3.7%
Steel	+3.3%
Metals & Mining (Div.)	+2.6%
Shoe	+2.2%
Wireless Networking	+2.0%
Internet	+1.9%

7 Worst Performing Industries

Homebuilding	-13.0%
Natural Gas (Div.)	-12.1%
Oilfield Svcs/Equip.	-9.2%
Maritime	-8.9%
Entertainment	-8.6%
Newspaper	-8.5%
Power	-8.3%

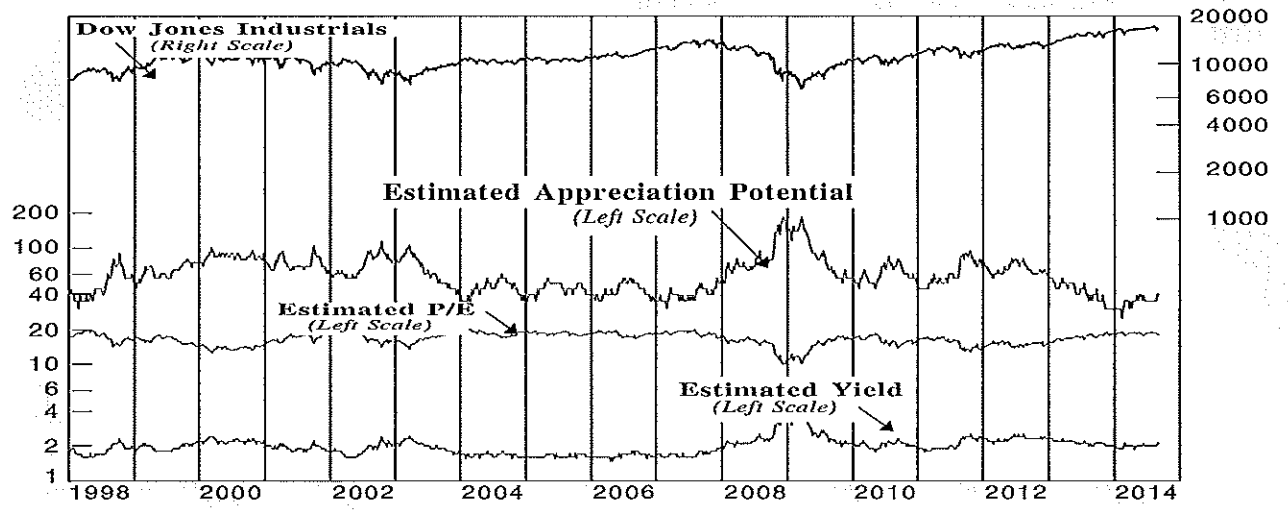
The corresponding change in the Value Line Arithmetic Average* is -4.1%

CHANGES IN FINANCIAL STRENGTH RATINGS

Company	Prior Rating	New Rating	Ratings & Reports Page
Bard (C.R.), Inc.	A++	A+	172
Hill-Rom Hldgs.	B+	B++	215
PerkinElmer, Inc.	B+	B++	131
Volcano Corp.	B	C++	233

Stock Market Averages

VALUE LINE ESTIMATED P/E, YIELD, APPRECIATION POTENTIAL
VERSUS DOW JONES INDUSTRIALS *(JANUARY 2, 1998 - AUGUST 12, 2014)*



THE VALUE LINE GEOMETRIC AVERAGES

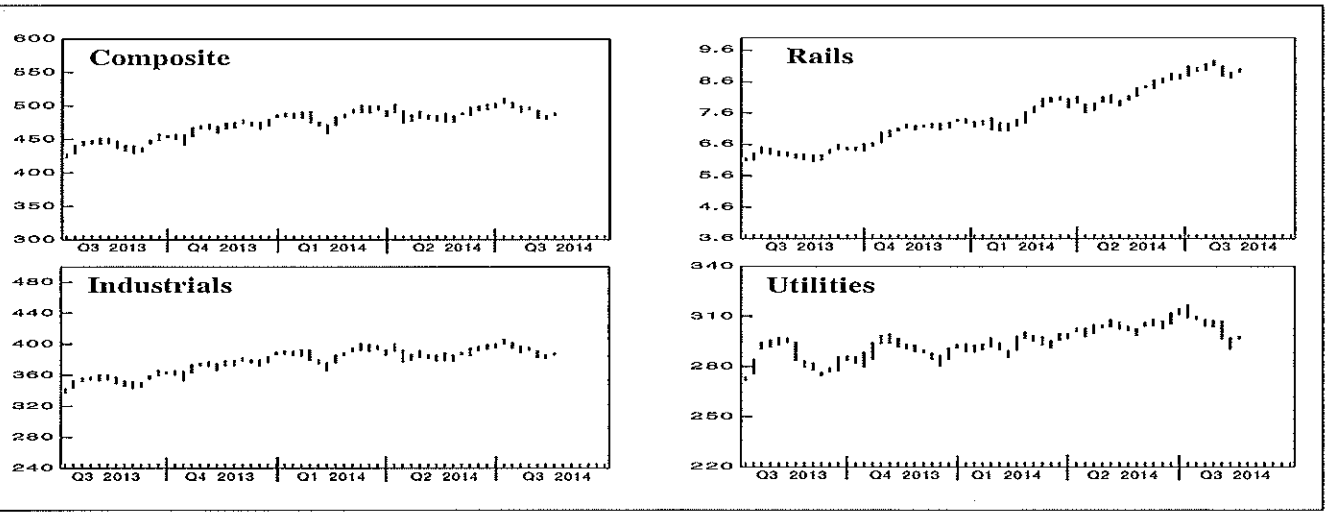
	Composite 1681 stocks	Industrials 1594 stocks	Rails 9 stocks	Utilities 78 stocks
8/7/2014	480.71	381.62	8717.48	292.01
8/8/2014	485.52	385.28	8839.91	297.03
8/11/2014	488.85	388.05	8972.64	296.93
8/12/2014	486.30	385.94	8920.67	296.69
8/13/2014	488.96	388.07	8991.96	297.86
%Change last 4 weeks	-1.6%	-1.6%	-0.5%	-3.1%

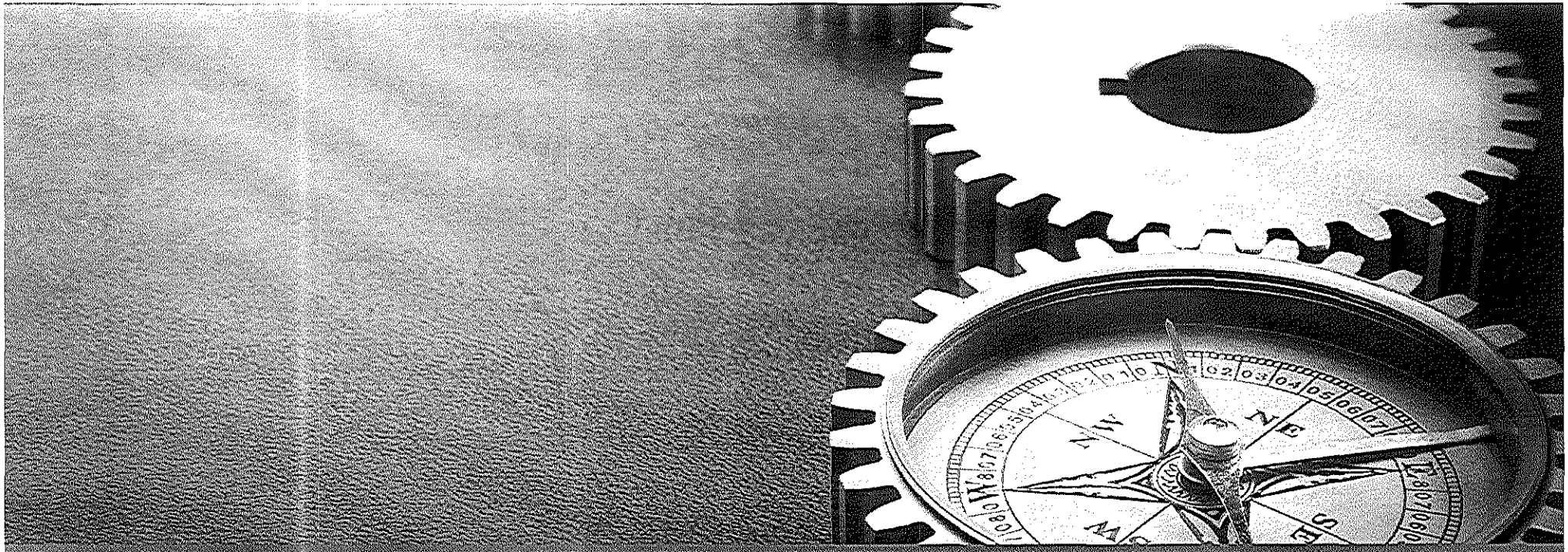
Arithmetic* Composite 1681 stocks
4403.20
4447.90
4478.93
4456.28
4481.07
-1.3%

THE DOW JONES AVERAGES

Composite 65 stocks	Industrials 30 stocks	Transportation 20 stocks	Utilities 15 stocks
5799.57	16368.27	7992.08	530.78
5877.29	16553.93	8092.47	542.69
5890.44	16569.98	8156.65	540.63
5887.84	16560.54	8153.80	540.55
5919.00	16651.80	8209.57	541.42
-2.7%	-2.8%	-2.2%	-3.1%

WEEKLY VALUE LINE GEOMETRIC AVERAGES* *(JULY 1, 2013 - AUGUST 13, 2014)*





J.P. Morgan Asset Management

Long-term Capital Market Return Assumptions

2014 EDITION

J.P.Morgan
Asset Management

J.P. Morgan Asset Management Long-term Capital Market Return Assumptions

As of September 30, 2013*

	Expected 10–15 year annualized compound returns (%)[1,2]		Rationale
U.S. ECONOMIC INDICATORS	Inflation	2.25	Significant slack in the economy overall, elevated levels of unemployment, ongoing deleveraging, and firmly anchored market expectations will keep inflation low overall. Reflationary central bank policies create the risk for higher inflation for the outer years of the projection horizon.
	Core Inflation	2.25	
	Real GDP	2.50	The cyclical picture continues to improve and economic momentum is improving, as secular challenges from an ageing population and rising entitlement costs become more pressing.
FIXED INCOME[2]	U.S. Cash	2.00	The Federal Reserve to keep policy rates on hold for an extended period and raise them only gradually thereafter. Real rates to remain low by historical standards.
	U.S. Intermediate Treasury[3]	4.25	Yield levels to stay contained in the near term before rising towards their higher equilibrium levels as monetary policy is eventually normalized. Dampened total returns due to both low income from the low level of yield and negative mark-to-market returns from rising rates.
	U.S. Long Treasury[4]	3.25	
	U.S. TIPS	4.75	TIPS to outperform nominal Treasuries as longer-term expected inflation rises only moderately from current levels.
	U.S. Aggregate	4.25	Spreads are expected to narrow somewhat, but total returns should remain exposed to rising overall yields broadly in line with Treasury rates; intermediate maturity securities benefit most from the curve roll-down.
	U.S. Short Duration Gov't/Credit	2.50	
	U.S. Long Duration Gov't/Credit	4.75	
	U.S. Investment Grade Corporate	5.00	
	U.S. Long Corporate	5.00	
	U.S. High Yield	6.00	Any further reduction in default rates and spread narrowing will provide only limited protection to offset the mark-to-market pressure from rising Treasury rates. Income is expected to be the driver of returns. Haircut applied to total returns for expected loss from defaults.
	U.S. Leveraged Loan (BB or better)	4.50	
	World Government Bond (local)	2.75	Government bond yields to rise globally from current levels, leading to negative mark-to-market returns during the period where rates converge to equilibrium. Outside the U.S., countries are likely to experience a prolonged period of lower rates and normalization due to slower economic growth.
	World ex-U.S. Government Bond (local)	2.50	
	World ex-U.S. Government Bond (hedged)	3.25	Higher U.S. cash yields compared to weighted average WGBI cash yields are expected to boost returns to U.S. investors.
	Emerging Markets Sovereign Debt (hedged)	6.75	Spreads have room to narrow, but total returns are at risk from rising U.S. Treasury yields given the long index duration.
	Emerging Markets Local Currency Sovereign Debt (unhedged)	7.00	Spreads are expected to narrow further, but total returns are expected to be constrained as overall yields rise with U.S. Treasury rates.
	Emerging Markets Corporate Debt (hedged)	6.25	Yields are expected to rise as inflation and real rates in emerging economies increase to their higher equilibrium levels over time. Total returns to be largely driven by income.
	U.S. Municipal (1–15 Blend)	3.75	Spreads are expected to narrow further, but total returns are expected to be constrained as overall yields rise with U.S. Treasury rates.
EQUITY[2]	U.S. Large Cap	7.50	Sum of below building blocks (nominal earnings per share growth + dividend yield + price-to-earnings return impact). Total returns are expected to recover over the long term as the corporate sector outperforms the domestic economy.
	U.S. Large Cap EPS Growth	4.50	Real corporate earnings growth remains robust as companies maintain cost discipline, while margins to drift gradually lower.
	U.S. Large Cap Dividend Yield	3.00	Dividend yield is expected to rise as companies favor payouts over new investment.
	U.S. Large Cap P/E Return Impact	zero	Valuation multiples approach more recent historical averages, but upside is limited due to secular pressures and limited headline growth.
	U.S. Mid Cap	7.75	Mid cap companies in particular are likely to benefit from acquisition activity by larger firms, especially given the significant cash build-up on large cap corporate balance sheets.
	U.S. Small Cap	7.50	
	U.S. Large Cap Value	7.75	Value is expected to outperform growth given starting valuations and more favorable sector concentrations.
	U.S. Large Cap Growth	7.25	
	Europe ex-U.K. Large Cap (local)	8.00	An earnings premium to nominal GDP is expected due to the large share of globally sourced revenues. Valuations to improve from depressed levels and dividend yields to rise moderately.
	Japan Large Cap (local)	4.75	Earnings to outperform the domestic economy given exposure to fast-growing overseas markets. Japan to remain a global underperformer given demographic challenges and the ongoing battle with deflation.
	U.K. Large Cap (local)	8.25	An earnings premium to nominal GDP is expected given support from foreign-sourced revenues. Tolerance for higher inflation to keep valuations in check, but dividend yields are expected to rise moderately.
	EAFE Equity (local)	7.50	Market capitalization weighted average of expectations for regional equity returns.
	EAFE Equity (unhedged)	7.75	Slight dollar depreciation against the weighted average of EAFE currencies is expected to boost returns to U.S. investors.
	Emerging Markets Equity (unhedged)	9.00	Overall more favorable demographics, policy flexibility and improved corporate governance should support long-run growth even with weaker economic fundamentals.
	Asia ex-Japan Equity (unhedged)	9.25	
	Global Equity (unhedged)	7.75	Market capitalization weighted average of expectations for regional equity returns.
ALTERNATIVE/OTHER[2]	U.S. Private Equity[5,6]	8.00	Median manager returns assumed to be in line with mid cap equity. Sizeable divergence expected across private investments.
	U.S. Direct Real Estate (unlevered)[5,6]	6.00	Appreciation of real estate assets, lower intial property yields and low nominal GDP expectations reduce return expectation by 0.50% per annum from 2013 estimates.
	U.S. Value Added Real Estate (unlevered)[5,6]	7.75	A real estate risk assumption between core and opportunistic, seeking to enhance cash flows, occupancy, and building renovation; historically has given a higher yield compared to core.
	European Real Estate (unlevered, local)[5,6]	6.00	European real estate, with low nominal GDP growth, to produce muted return expectations.
	U.S. REITs	6.75	Solid REIT performance and a slight NAV premium to direct unlevered real estate results in REIT returns that are broadly in line with the real asset return.
	Global Infrastructure[5,6]	7.25	Expectations for returns are based on continued interest in infrastructure cash flows with good visibility and the benefit of leverage for low risk "bondable" assets.
	Hedge Fund—Diversified[5,6]	5.25	Expected hedge fund returns are based on multi-variate regressions to public markets. A blend of emerging market, commodities, small cap and U.S. aggregate bond betas to be the main driver of median manager expected returns. Sizeable divergences are expected among managers.
	Hedge Fund—Event Driven[5,6]	6.00	Blend of emerging market, commodities, mid cap, small cap, U.S. high yield and cash betas to be the main driver of median manager expected returns. Sizeable divergences are expected among managers.
	Hedge Fund—Long Bias[5,6]	6.25	Blend of commodities, emerging market equity, and large and small cap betas to be the main driver of median manager expected returns. Sizeable divergences are expected among managers.
	Hedge Fund—Relative Value[5,6]	4.75	Blend of emerging market credit, commodities, U.S. high yield and investment grade bond betas to be the main driver of median manager expected returns. Sizeable divergences are expected among managers.
	Hedge Fund—Macro[5,6]	5.25	Blend of commodities, emerging market equity and cash betas to be the main driver of median manager expected returns. Sizeable divergences are expected among managers.
	Commodities (spot)[5]	3.75	Return expectation is based on the growth of nominal global GDP. Returns to be less robust, reflecting large supply/demand challenges.
	Gold (spot)	4.25	Expected return is based on the historical relationship with inflation expectations, the U.S. dollar and emerging markets.

* Data as of September 30, 2013, except hedge funds (diversified, event driven, long bias, and relative value) as of June 30, 2013 and hedge fund (macro) as of May 31, 2013.

[1] Return estimates are on a compound or internal rate of return (IRR) basis. Equivalent arithmetic averages, as well as further information, are shown on the following page.
[2] All asset class assumptions are in total return terms, including equity return assumptions. All returns are in U.S. dollar terms unless otherwise indicated.
[3] U.S. Intermediate Treasury returns based on Barclays Capital U.S. Treasury: 7-10 Year Index.
[4] U.S. Long Treasury returns based on Barclays Capital U.S. Treasury: 20+ Year Index.
[5] Private equity, hedge funds, real estate, infrastructure and commodities are unlike other asset categories shown above in that there is no unde investible index. Hedge fund returns are shown net of manager fees.
[6] The return estimates shown for these asset classes and strategies are our estimates of industry medians—the dispersion of returns among managers in these asset classes and strategies is typically far wider than for traditional asset classes.
See additional notes on the following page.

		Expected arithmetic return (%)[2]	Expected compound return (%)[2]	Expected annualized volatility (%)[2]
	U.S. Inflation	2.26	2.25	1.50
FIXED INCOME	U.S. Cash	2.00	2.00	0.50
	U.S. Intermediate Treasury[3]	4.45	4.25	6.50
	U.S. Long Treasury[4]	4.11	3.25	13.50
	U.S. TIPS	4.97	4.75	6.75
	U.S. Aggregate	4.35	4.25	4.50
	U.S. Short Duration Gov't/Credit	2.52	2.50	2.00
	U.S. Long Duration Gov't/Credit	5.18	4.75	9.50
	U.S. Investment Grade Corporate	5.23	5.00	7.00
	U.S. Long Corporate	5.67	5.00	12.00
	U.S. High Yield	6.75	6.00	12.75
	U.S. Leveraged Loan (BB or better)	5.00	4.50	10.25
	World Government Bond (hedged)	3.29	3.25	3.00
	World Government Bond (unhedged)	3.49	3.25	7.00
	World ex-U.S. Government Bond (hedged)	3.29	3.25	3.00
	World ex-U.S. Government Bond (unhedged)	3.58	3.25	8.25
	Emerging Markets Sovereign Debt (hedged)	7.41	6.75	12.00
	Emerging Markets Local Currency Sovereign Debt (unhedged)	7.69	7.00	12.25
	Emerging Markets Corporate Debt (hedged)	6.86	6.25	11.50
	U.S. Municipal (1-15 Blend)	3.83	3.75	4.00
	U.S. Municipal High Yield	5.77	5.25	10.50
EQUITY	U.S. Large Cap	8.49	7.50	14.75
	U.S. Mid Cap	9.17	7.75	17.75
	U.S. Small Cap	9.24	7.50	19.75
	U.S. Large Cap Value	8.84	7.75	15.50
	U.S. Large Cap Growth	8.27	7.25	15.00
	Europe ex-U.K. Large Cap (unhedged)	9.20	7.75	18.00
	Japan Large Cap (unhedged)	7.99	6.75	16.50
	U.K. Large Cap (unhedged)	9.45	8.00	18.00
	EAFE Equity (hedged)	8.70	7.75	14.50
	EAFE Equity (unhedged)	9.24	7.75	18.25
	Emerging Markets Equity (unhedged)	11.50	9.00	24.00
	Asia ex-Japan Equity (unhedged)	11.50	9.25	22.75
	Global Equity (unhedged)	9.01	7.75	16.75
ALTERNATIVES	U.S. Private Equity[5,6]	10.13	8.00	22.00
	U.S. Direct Real Estate (unlevered)[5,6]	6.67	6.00	12.00
	U.S. Value Added Real Estate (unlevered)[5,6]	8.84	7.75	15.50
	European Direct Real Estate (unlevered)[5,6]	6.89	5.75	15.75
	U.S. REITs	8.55	6.75	20.00
	Global Infrastructure[5,6]	7.97	7.25	12.50
	Hedge Fund–Diversified[5,6]	5.45	5.25	6.50
	Hedge Fund–Event Driven[5,6]	6.30	6.00	8.00
	Hedge Fund–Long Bias[5,6]	6.72	6.25	10.00
	Hedge Fund–Relative Value[5,6]	4.92	4.75	6.00
	Hedge Fund–Macro[5,6]	5.74	5.25	10.25
	Commodities (spot)[5]	5.34	3.75	18.50
	Gold (spot)	5.91	4.25	19.00

Correlation Matrix

	U.S. Inflation	U.S. Cash	U.S. Intermediate Treasury[3]	U.S. Long Treasury[4]	U.S. TIPS	U.S. Aggregate	U.S. Short Duration Gov't/Credit	U.S. Long Duration Gov't/Credit	U.S. Investment Grade Corporate	U.S. Long Corporate	U.S. High Yield	U.S. Leveraged Loan	World Government Bond (hedged)	World Government Bond (unhedged)	World ex-U.S. Government Bond (hedged)	World ex-U.S. Government Bond (unhedged)	Emerging Markets Sovereign Debt (unhedged)	Emerging Markets Local Currency Sovereign Debt (unhedged)	Emerging Markets Corporate Debt (unhedged)	U.S. Municipal (1-15 Blend)	U.S. Municipal High Yield	U.S. Large Cap	U.S. Mid Cap	U.S. Small Cap	U.S. Large Cap Value	U.S. Large Cap Growth	Europe ex-U.K. Large Cap (unhedged)	Japan Large Cap (unhedged)	U.K. Large Cap (unhedged)	EAFE Equity (hedged)	EAFE Equity (unhedged)	Emerging Markets Equity (unhedged)	Asia ex-Japan Equity (unhedged)	Global Equity (unhedged)	U.S. Private Equity[5,6]	U.S. Direct Real Estate (unlevered)[5,6]	U.S. Value Added Real Estate (unlevered)[5,6]	European Direct Real Estate (unlevered)[5,6]	U.S. REITs	Global Infrastructure[5,6]	Hedge Fund–Diversified[5,6]	Hedge Fund–Event Driven[5,6]	Hedge Fund–Long Bias[5,6]	Hedge Fund–Relative Value[5,6]	Hedge Fund–Macro[5,6]	Commodities (spot)[5]	Gold (spot)
U.S. Inflation	1.00																																																
U.S. Cash	0.09	1.00																																															
U.S. Intermediate Treasury[3]	-0.30	0.03	1.00																																													
U.S. Long Treasury[4]	-0.33	0.01	0.69	1.00																																												
U.S. TIPS	0.05	-0.02	0.62	0.47	1.00																																										
U.S. Aggregate	-0.26	0.00	0.87	0.77	0.77	1.00																																									
U.S. Short Duration Gov't/Credit	-0.20	0.27	0.67	0.44	0.61	0.76	1.00																																								
U.S. Long Duration Gov't/Credit	-0.31	-0.05	0.84	0.87	0.66	0.92	0.56	1.00																																							
U.S. Investment Grade Corporate	-0.24	-0.09	0.53	0.47	0.64	0.82	0.61	0.79	1.00																																						
U.S. Long Corporate	-0.28	-0.10	0.58	0.61	0.60	0.83	0.50	0.87	0.93	1.00																																					
U.S. High Yield	-0.04	-0.10	-0.06	-0.12	0.39	0.33	0.18	0.28	0.62	0.58	1.00																																				
U.S. Leveraged Loan	0.13	-0.07	-0.19	-0.22	0.27	0.13	-0.02	0.12	0.41	0.37	0.75	1.00																																			
World Government Bond (hedged)	-0.35	0.06	0.88	0.83	0.49	0.80	0.63	0.78	0.51	0.56	-0.07	-0.24	1.00																																		
World Government Bond (unhedged)	-0.12	0.05	0.59	0.46	0.62	0.67	0.64	0.56	0.54	0.52	0.27	-0.06	0.56	1.00																																	
World ex-U.S. Government Bond (hedged)	-0.33	0.05	0.77	0.73	0.39	0.71	0.54	0.71	0.47	0.52	-0.04	-0.22	0.95	0.51	1.00																																
World ex-U.S. Government Bond (unhedged)	-0.08	0.04	0.48	0.35	0.57	0.59	0.58	0.48	0.51	0.48	0.31	-0.02	0.47	0.96	0.43	1.00																															
Emerging Markets Sovereign Debt (hedged)	-0.12	-0.04	0.37	0.24	0.65	0.67	0.44	0.58	0.76	0.73	0.75	0.50	0.32	0.52	0.30	0.52	1.00																														
Emerging Markets Local Currency Sovereign Debt (unhedged)	0.03	0.05	0.12	0.01	0.47	0.40	0.31	0.31	0.54	0.49	0.67	0.32	0.11	0.56	0.12	0.60	0.80	1.00																													
Emerging Markets Corporate Debt (hedged)	-0.06	-0.08	0.27	0.14	0.61	0.59	0.39	0.51	0.77	0.70	0.74	0.63	0.19	0.40	0.17	0.40	0.90	0.69	1.00																													
U.S. Municipal (1-15 Blend)	-0.13	-0.04	0.49	0.38	0.50	0.63	0.48	0.54	0.58	0.51	0.30	0.24	0.49	0.36	0.47	0.32	0.48	0.24	0.40	1.00																												
U.S. Municipal High Yield	0.17	-0.07	-0.04	-0.11	0.33	0.19	0.06	0.12	0.29	0.21	0.36	0.48	-0.04	0.04	-0.01	0.06	0.40	0.24	0.46	0.61	1.00																											
U.S. Large Cap	0.08	-0.06	-0.26	-0.31	0.18	0.04	-0.05	-0.02	0.30	0.24	0.71	0.44	-0.27	0.19	-0.23	0.26	0.55	0.67	0.55	0.04	0.27	1.00																											
U.S. Mid Cap	0.11	-0.07	-0.29	-0.33	0.20	0.03	-0.07	-0.02	0.31	0.26	0.74	0.50	-0.29	0.14	-0.25	0.21	0.56	0.66	0.57	0.06	0.29	0.96	1.00																										
U.S. Small Cap	0.08	-0.08	-0.31	-0.34	0.10	-0.04	-0.13	-0.08	0.21	0.18	0.69	0.41	-0.31	0.10	-0.26	0.18	0.48	0.63	0.47	-0.02	0.20	0.92	0.94	1.00																										
U.S. Large Cap Value	0.07	-0.05	-0.24	-0.28	0.16	0.05	-0.04	0.00	0.30	0.25	0.69	0.40	-0.23	0.21	-0.19	0.27	0.55	0.67	0.55	0.03	0.25	0.96	0.94	0.92	1.00																										
U.S. Large Cap Growth	0.09	-0.07	-0.28	-0.34	0.20	0.02	-0.07	-0.04	0.29	0.23	0.71	0.48	-0.30	0.15	-0.26	0.22	0.53	0.64	0.54	0.05	0.28	0.96	0.95	0.91	0.93	1.00																									
Europe ex-U.K. Large Cap (unhedged)	0.06	0.03	-0.23	-0.28	0.21	0.09	0.05	0.03	0.36	0.30	0.72	0.42	-0.21	0.36	-0.17	0.44	0.61	0.77	0.57	0.04	0.24	0.89	0.87	0.81	0.89	0.87	1.00																								
Japan Large Cap (unhedged)	0.05	-0.03	-0.11	-0.12	0.22	0.16	0.08	0.13	0.40	0.35	0.57	0.39	-0.11	0.26	-0.09	0.30	0.52	0.61	0.49	0.03	0.18	0.65	0.65	0.61	0.65	0.62	0.69	1.00																								
U.K. Large Cap (unhedged)	0.12	0.00	-0.29	-0.35	0.20	0.05	0.00	-0.01	0.37	0.29	0.68	0.48	-0.28	0.28	-0.24	0.36	0.58	0.72	0.60	0.06	0.35	0.87	0.85	0.76	0.86	0.85	0.93	0.67	1.00																							
EAFE Equity (hedged)	0.04	0.01	-0.35	-0.34	0.05	-0.02	-0.12	-0.03	0.31	0.27	0.69	0.52	-0.30	0.02	-0.23	0.09	0.53	0.62	0.53	0.01	0.29	0.88	0.88	0.82	0.87	0.87	0.88	0.75	0.87	1.00																							
EAFE Equity (unhedged)	0.07	0.01	-0.22	-0.27	0.24	0.12	0.05	0.06	0.41	0.35	0.73	0.46	-0.21	0.35	-0.17	0.42	0.64	0.79	0.62	0.06	0.28	0.89	0.88	0.81	0.88	0.87	0.96	0.77	0.94	0.90	1.00																						
Emerging Markets Equity (unhedged)	0.07	0.07	-0.18	-0.24	0.31	0.15	0.08	0.08	0.39	0.34	0.70	0.45	-0.19	0.30	-0.16	0.36	0.66	0.81	0.63	0.07	0.29	0.80	0.82	0.76	0.77	0.81	0.86	0.67	0.85	0.82	0.89	1.00																						
Asia ex-Japan Equity (unhedged)	0.01	0.06	-0.16	-0.22	0.28	0.17	0.09	0.11	0.43	0.38	0.72	0.46	-0.15	0.28	-0.11	0.34	0.64	0.78	0.62	0.09	0.28	0.78	0.79	0.73	0.75	0.79	0.84	0.63	0.82	0.81	0.87	0.95	1.00																						
Global Equity (unhedged)	0.08	0.00	-0.25	-0.30	0.24	0.09	0.01	0.03	0.38	0.32	0.75	0.48	-0.25	0.28	-0.21	0.35	0.63	0.77	0.62	0.05	0.29	0.94	0.93	0.88	0.93	0.93	0.95	0.73	0.93	0.91	0.96	0.90	0.88	1.00																						
U.S. Private Equity[5,6]	0.12	-0.12	-0.37	-0.39	0.10	-0.07	-0.13	-0.11	0.22	0.17	0.67	0.44	-0.35	0.08	-0.30	0.16	0.44	0.61	0.47	-0.02	0.30	0.90	0.93	0.95	0.89	0.89	0.80	0.64	0.77	0.82	0.81	0.76	0.74	0.87	1.00																						
U.S. Direct Real Estate (unlevered)[5,6]	0.06	-0.02	0.00	-0.01	0.16	0.15	0.05	0.12	0.20	0.21	0.38	0.20	0.02	0.16	0.03	0.17	0.31	0.33	0.24	0.11	0.13	0.35	0.39	0.39	0.38	0.32	0.31	0.27	0.28	0.29	0.32	0.27	0.26	0.33	0.35	1.00																						
U.S. Value Added Real Estate (unlevered)[5,6]	0.06	-0.01	-0.05	-0.07	0.13	0.10	0.04	0.07	0.17	0.17	0.35	0.19	-0.03	0.15	-0.02	0.18	0.29	0.33	0.24	0.07	0.13	0.35	0.37	0.37	0.37	0.33	0.35	0.27	0.33	0.32	0.35	0.30	0.29	0.36	0.34	0.70	1.00																						
European Direct Real Estate (unlevered)[5,6]	0.07	-0.02	-0.06	-0.10	0.14	0.09	0.08	0.04	0.14	0.12	0.27	0.15	-0.03	0.20	0.00	0.23	0.29	0.32	0.25	0.02	0.16	0.28	0.28	0.27	0.31	0.24	0.35	0.22	0.34	0.27	0.34	0.26	0.23	0.31	0.27	0.50	0.50	1.00																						
U.S. REITs	0.09	-0.04	-0.06	-0.09	0.28	0.22	0.07	0.17	0.36	0.36	0.72	0.39	-0.05	0.27	-0.02	0.31	0.58	0.64	0.49	0.17	0.25	0.77	0.79	0.79	0.80	0.72	0.69	0.56	0.64	0.66	0.69	0.61	0.59	0.74	0.73	0.60	0.48	0.34	1.00																						
Global Infrastructure[5,6]	0.10	0.00	0.19	0.15	0.30	0.29	0.18	0.25	0.27	0.27	0.30	0.15	0.16	0.26	0.14	0.25	0.34	0.32	0.29	0.18	0.13	0.29	0.30	0.29	0.31	0.27	0.26	0.23	0.23	0.21	0.27	0.24	0.23	0.28	0.25	0.28	0.21	0.15	0.45	1.00																						
Hedge Fund–Diversified[5,6]	0.22	0.11	-0.33	-0.36	0.19	-0.03	-0.06	-0.06	0.26	0.19	0.50	0.46	-0.34	0.06	-0.29	0.13	0.41	0.55	0.47	0.03	0.42	0.67	0.71	0.62	0.63	0.71	0.71	0.62	0.77	0.76	0.76	0.80	0.75	0.77	0.69	0.14	0.20	0.23	0.39	0.12	1.00																						
Hedge Fund–Event Driven[5,6]	0.21	0.00	-0.38	-0.43	0.18	-0.04	-0.09	-0.09	0.29	0.21	0.64	0.51	-0.38	0.09	-0.32	0.17	0.48	0.62	0.56	0.02	0.46	0.82	0.85	0.79	0.79	0.83	0.81	0.64	0.85	0.83	0.85	0.83	0.79	0.87	0.85	0.26	0.30	0.31	0.59	0.20	0.91	1.00																						
Hedge Fund–Long Bias[5,6]	0.15	0.02	-0.36	-0.42	0.19	-0.02	-0.03	-0.09	0.31	0.23	0.67	0.49	-0.37	0.14	-0.33	0.22	0.53	0.69	0.57	0.00	0.35	0.86	0.88	0.83	0.84	0.88	0.87	0.70	0.89	0.88	0.90	0.91	0.87	0.93	0.86	0.25	0.29	0.26	0.60	0.20	0.89	0.93	1.00																					
Hedge Fund–Relative Value[5,6]	0.25	-0.02	-0.28	-0.34	0.32	0.11	0.03	0.05	0.43	0.35	0.70	0.66	-0.31	0.06	-0.27	0.12	0.58	0.60	0.66	0.17	0.54	0.70	0.75	0.64	0.67	0.73	0.71	0.60	0.78	0.76	0.76	0.78	0.75	0.78	0.71	0.24	0.27	0.28	0.53	0.20	0.86	0.90	0.85	1.00																				
Hedge Fund–Macro[5,6]	-0.02	0.19	-0.02	-0.04	0.19	0.08	0.20	0.05	0.16	0.13	0.12	-0.03	0.00	0.38	0.01	0.41	0.18	0.39	0.12	0.02	0.09	0.25	0.25	0.21	0.24	0.26	0.37	0.38	0.39	0.28	0.42	0.50	0.45	0.38	0.25	0.02	0.07	0.07	0.11	0.04	0.59	0.41	0.49	0.30	1.00																				
Commodities (spot)[5]	0.24	0.07	-0.13	-0.22	0.33	0.08	0.13	0.01	0.25	0.20	0.38	0.25	-0.20	0.31	-0.21	0.37	0.41	0.54	0.45	-0.08	0.15	0.49	0.52	0.42	0.47	0.50	0.56	0.39	0.65	0.45	0.60	0.64	0.57	0.60	0.43	0.13	0.18	0.20	0.33	0.15	0.63	0.59	0.66	0.59	0.55	1.00																				
Gold (spot)	0.03	0.09	0.25	0.11	0.45	0.32	0.34	0.22	0.25	0.22	0.15	0.07	0.13	0.48	0.08	0.48	0.39	0.44	0.38	0.15	0.12	0.11	0.13	0.10	0.11	0.12	0.18	0.16	0.21	0.01	0.22	0.34	0.28	0.21	0.09	0.07	0.07	0.09	0.13	0.13	0.26	0.19	0.27	0.23	0.49	0.52	1.00																				

Note: All estimates on this page are in U.S. dollar terms. Given the complex risk-reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations to all the above asset classes and strategies. Please note that all information shown is based on qualitative analysis. Exclusive reliance on the above is not advised. This information is not intended as a recommendation to invest in any particular asset class or strategy or as a promise of future performance. Note that these asset class and strategy assumptions are passive only–they do not consider the impact of active management. References to future returns are not promises or even estimates of actual returns a client portfolio may achieve. Assumptions, opinions and estimates are provided for illustrative purposes only. They should not be relied upon as recommendations to buy or sell securities. Forecasts of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. This material has been prepared for information purposes only and is not intended to provide, and should not be relied on for, accounting, legal or tax advice. See footnotes on the prior page.

"For markets, the path back to normality will be long and winding, but we expect the process to complete well within our 10- to 15-year time frame."

J.P. MORGAN ASSET MANAGEMENT | 270 Park Avenue, New York, NY 10017

J.P. Morgan Asset Management Long-term Capital Market Return Assumptions are developed each year by our Assumptions Committee, a multi-asset class team of senior investors from across the firm. The Committee relies on the input and expertise of a range of portfolio managers and product specialists, striving to ensure that the analysis is consistent across asset classes. The final step in the process is a rigorous review of the proposed assumptions and their underlying rationale with the senior management of J.P. Morgan Asset Management.

Our capital market assumptions are used widely by institutional investors—including pension plans, insurance companies, endowments and foundations—to ensure that investment policies and decisions are based on real-world, consistent views and can be tested under a variety of market scenarios.

INST-LTCMRA2013-FOC-P1

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The projections in the charts above are based on J.P. Morgan Asset Management's (JPMAM) proprietary long term capital markets assumptions (10-15 years) for risk, return and correlations between major asset classes. The resulting projections include only the benchmark return associated with the portfolio and does not include alpha from the underlying product strategies within each asset class. The assumptions are presented for illustrative purposes only. They must not be used, or relied upon, to make investment decisions. The assumptions are not meant to be a representation of, nor should they be interpreted as JPMAM investment recommendations. Allocations, assumptions, and expected returns are not meant to represent JPMAM performance. Please note all information shown is based on assumptions, therefore, exclusive reliance on these assumptions is incomplete and not advised. The individual asset class assumptions are not a promise of future performance. Note that these asset class assumptions are passive-only; they do not consider the impact of active management.

J.P.Morgan
Asset Management

CENTURYLINK, INC. NYSE-CTL

RECENT PRICE 36.93 | P/E RATIO 14.2 (Trailing: 13.9 Median: 13.0) | RELATIVE P/E RATIO 0.76 | DIV'D YLD 5.8% | VALUE LINE

TIMELINESS 3 Lowered 4/11/14
SAFETY 3 Lowered 2/22/13
TECHNICAL 3 Lowered 6/20/14
BETA .75 (1.00 = Market)

2017-19 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+50%)	15%
Low	40	(+10%)	7%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	3	1	0	1	1	0	0	4

Institutional Decisions

	3Q2013	4Q2013	1Q2014
to Buy	262	263	261
to Sell	314	342	330
Hld's(000)	432776	439787	429764

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	© VALUE LINE PUB. LLC	17-19
	11.42	11.98	13.12	14.99	15.52	16.48	18.19	18.91	21.61	24.02	25.91	25.59	23.09	24.82	29.37	31.31	31.55	31.80	Revenues per sh	33.20
	3.81	4.15	4.32	4.76	5.25	5.65	6.33	6.61	7.89	8.21	8.69	8.61	8.07	7.44	8.88	10.85	10.65	10.70	"Cash Flow" per sh	11.50
	1.42	1.65	1.55	1.40	2.27	2.39	2.40	2.49	3.07	3.13	3.37	3.46	3.41	1.07	1.25	2.76	2.60	2.65	Earnings per sh A	3.15
	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	1.54	2.60	2.90	2.90	2.90	2.16	2.16	2.16	Div'ds Decl'd per sh B■	2.16
	2.25	2.79	3.20	3.59	2.70	2.62	2.91	3.17	2.77	3.01	2.86	2.52	2.83	3.90	4.67	5.27	5.35	5.35	Cap'l Spending per sh	4.30
	11.03	13.15	14.39	16.49	21.55	24.04	25.70	27.54	28.11	31.42	31.55	31.64	31.64	33.67	30.83	34.05	34.75	35.30	Book Value per sh C	38.05
	138.08	139.95	140.67	141.23	142.96	144.36	132.37	131.07	113.25	108.49	100.28	299.19	304.95	618.51	625.66	577.96	572.00	568.00	Common Shs Outst'g D	560.00
	22.1	25.6	21.3	22.5	13.0	13.4	12.9	13.4	12.5	14.5	10.0	8.9	10.9	36.2	31.4	12.7	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	15.0
	1.15	1.46	1.38	1.15	.71	.76	.68	.71	.67	.77	.60	.59	.69	2.27	2.00	.80			Relative P/E Ratio	.95
	.6%	.4%	.6%	.6%	.7%	.7%	.7%	.7%	.7%	.6%	4.6%	9.1%	7.8%	7.5%	7.4%	6.2%			Avg Ann'l Div'd Yield	4.5%
	2407.4	2479.3	2447.7	2606.1	2598.4	7655.7	7041.5	15351	18376	18095	18050	18050	Revenues ($mill)	18600
	337.2	334.5	370.0	354.3	347.1	1033.6	1028.3	573.0	777.0	1660.9	1480	1480	Net Profit ($mill)	1770
	38.4%	37.8%	37.4%	37.7%	37.0%	37.4%	37.8%	39.6%	37.8%	38.0%	38.0%	38.0%	Income Tax Rate	33.0%
	14.0%	13.5%	15.1%	13.6%	13.4%	13.5%	14.6%	3.7%	4.2%	9.2%	8.2%	8.2%	Net Profit Margin	9.5%
	44.8%	39.6%	43.1%	44.5%	51.0%	43.4%	43.1%	50.6%	50.1%	50.6%	50.0%	50.0%	Long-Term Debt Ratio	45.0%
	55.1%	60.2%	56.8%	55.5%	49.0%	56.6%	56.9%	49.4%	49.9%	49.5%	50.0%	50.5%	Common Equity Ratio	55.0%
	6171.8	5993.3	5603.8	6143.6	6457.4	16720	16963	42183	38689	39857	39535	39880	Total Capital ($mill)	38085
	3341.4	3304.5	3109.3	3108.4	2895.9	9097.1	8754.5	19436	19032	19000	18500	18350	Net Plant ($mill)	17500
	7.0%	7.1%	8.4%	7.5%	6.9%	7.9%	7.7%	2.6%	3.7%	4.2%	3.5%	3.5%	Return on Total Cap'l	4.5%
	9.9%	9.2%	11.6%	10.4%	11.0%	10.9%	10.7%	2.8%	4.0%	8.4%	7.5%	7.5%	Return on Shr. Equity	8.5%
	9.9%	9.3%	11.6%	10.4%	11.0%	10.9%	10.7%	2.8%	4.0%	8.4%	7.5%	7.5%	Return on Com Equity	8.5%
	9.0%	8.4%	10.7%	9.5%	6.1%	5.0%	1.6%	NMF	NMF	2.1%	1.0%	1.5%	Retained to Com Eq	2.5%
	9%	10%	8%	8%	44%	54%	85%	NMF	NMF	75%	83%	83%	All Div'ds to Net Prof	68%

CAPITAL STRUCTURE as of 3/31/14

Total Debt $20940 mill. Due in 5 Yrs $5000 mill.
LT Debt $19814 mill. LT Interest $1200 mill.

(Total interest coverage: 4.0x) (50% of Cap'l)

Pension Assets-12/12 $12321 mill. Oblig. $14881 mill.

Common Stock 572,747,122 shares

MARKET CAP: $21.2 billion (Large Cap)

CURRENT POSITION ($MILL.)	2012	2013	3/31/14
Cash Assets	211	168	219
Other	3402	3739	3529
Current Assets	3613	3907	3748
Accts Payable	1207	1111	1183
Debt Due	1205	785	1126
Other	2183	2513	2312
Current Liab.	4595	4409	4621

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '17-'19
Revenues	6.0%	3.5%	3.5%
"Cash Flow"	5.5%	1.5%	5.0%
Earnings	1.0%	-8.0%	7.5%
Dividends	30.5%	63.5%	-4.0%
Book Value	6.5%	2.0%	2.5%

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	1696	4406	4596	4653	15351
2012	4610	4612	4571	4583	18376
2013	4513	4525	4515	4542	18095
2014	4538	*4500*	*4500*	*4512*	*18050*
2015	*4500*	*4500*	*4520*	*4530*	*18050*

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.69	.19	.23	.18	1.07
2012	.32	.12	.43	.37	1.25
2013	.76	.69	.63	.68	2.76
2014	.66	*.65*	*.65*	*.64*	*2.60*
2015	*.68*	*.67*	*.65*	*.65*	*2.65*

Calendar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	.725	.725	.725	.725	2.90
2011	.725	.725	.725	.725	2.90
2012	.725	.725	.725	.725	2.90
2013	.540	.540	.540	.540	2.16
2014	.540	.540			

BUSINESS: CenturyLink, Inc., formerly CenturyTel, is the third largest telephone company in the U.S. It provides broadband, voice, and wireless services to consumers and businesses across the country. It also offers advanced entertainment services under the *CenturyLink*, *Prism TV*, and *DIRECTV* brands. Acquired Verizon wireline assets in Alabama, 7/02; Verizon wireline assets in Missouri, 9/02; Embarq Corp., 7/09; Qwest, 4/11. Employs about 47,000. All Off./Dir. as a group own less than 1% of common stock; Capital Research Global, 12.4%; BlackRock, 6.0% (4/14 Proxy). Pres. & CEO: Glen F. Post III. Inc.: Louisiana. Addr.: 100 CenturyLink Drive, Monroe, Louisiana 71203. Tel.: 318-388-9000. Internet: www.centurylink.com.

CenturyLink seems to be on the right track. Management recently reiterated its focus on improving its network, particularly the Strategic Services segment. In addition, the company is looking to expand its Data Hosting business, which experienced a 6.0% year-over-year increase in revenue in the March term. CenturyLink continues to perform well despite an uneven macroenvironment and continued pressure from competitors looking to consolidate. That said, with the recent expenses related to the company's fiber-to-the-tower project, as well as further network upgrades, overhead may be elevated for the near term. However, those trends should subside in the long run as CenturyLink begins to fully integrate the improvements and acquisitions it has made. For now, investors should take note of the seasonal headwinds during the June period, likely due to certain markets experiencing higher churn (disconnection) rates from college students and snowbirds.

Management has laid out four strategic priorities for its network. Indeed, CenturyLink will continue its efforts to transform itself from a provider of traditional network communications to an integrated provider of enhanced network services, including cloud hosting and IT services. Management's strategic priorities include business network solutions, cloud and data hosting services, consumer broadband and video, and improving operating efficiency. While it may take some time for these efforts to fully bear fruit, we expect improvements in a roughly two- to three-year period. For the time being, we are maintaining our earnings estimate for 2014, but have raised our 2015 assessment by a nickel, to $2.65 a share.

Share repurchases should continue, for now. While the annual dividend payout has been lowered, management remains committed to repurchasing shares. It has completed about $1.9 billion on its current $2.0 billion authorization, and is looking to begin a new repurchase program after the June interim.

These shares have decent long-term total return prospects. The 3- to 5-year price appreciation potential here remains a tad below average at this juncture. But the income component adds appeal.

Eugene Varghese *June 20, 2014*

(A) Diluted earnings. Excludes nonrecurring items: '98, 21¢; '99, 5¢; '00, 8¢; '01, $1.01; '02: $3.34; '03, d1¢; '04, 4¢. Next earnings report due early August. (B) Dividends historically paid in March, June, September, and December. ■ Dividend reinvestment plan available. Excludes one-time dividend: Q3 '08, $0.633. (C) Includes intangibles. In 2013: $20,674 million ($35.77/share). (D) In millions, adjusted for split.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	50
Earnings Predictability	45

CONSOL. COMMUN. NDQ-CNSL

RECENT PRICE 20.47 | P/E RATIO 24.1 (Trailing: 26.6 Median: NMF) | RELATIVE P/E RATIO 1.29 | DIV'D YLD 7.6% | VALUE LINE

TIMELINESS 1 Raised 6/20/14
SAFETY 3 New 9/26/08
TECHNICAL 3 Lowered 9/2/14
BETA .70 (1.00 = Market)

2017-19 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	30	(+45%)	16%
Low	20	(Nil)	7%

Insider Decisions

	J	A	S	O	N	D	J	F	M
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	2	1	2	0	1	2

Institutional Decisions

	3Q2013	4Q2013	1Q2014
to Buy	61	62	64
to Sell	40	45	48
Hld's(000)	19188	18842	19746

LEGENDS
4.0 x "Cash Flow" p sh
Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2017 | 2018 | 2019

% TOT. RETURN 5/14

	THIS STOCK	VL ARITH.* INDEX
1 yr.	27.7	19.4
3 yr.	34.8	43.7
5 yr.	201.6	161.9

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	© VALUE LINE PUB. LLC	17-19
	--	10.80	12.34	11.18	14.19	13.72	12.88	12.53	12.63	15.01	15.05	15.50	Revenues per sh	21.90
	--	.85	3.38	2.62	3.49	3.72	3.87	3.66	3.18	4.22	4.40	4.70	"Cash Flow" per sh	6.65
	--	d.83	.75	.44	.18	.84	.94	.88	.15	.73	.85	.90	Earnings per sh A	1.40
	--	.80	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	Div'ds Decl'd per sh B	1.55
	--	1.04	1.28	1.14	1.63	1.43	1.40	1.43	1.93	2.68	2.45	2.50	Cap'l Spending per sh	2.95
	--	6.69	4.42	5.28	2.38	2.52	2.25	1.42	3.31	3.69	4.05	4.40	Book Value per sh D	7.50
	--	29.78	26.00	29.44	29.49	29.61	29.76	29.87	39.88	40.07	40.50	41.00	Common Shs Outst'g C	40.00
	--	--	22.0	45.3	77.5	15.1	19.0	21.1	NMF	24.3	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	18.5
	--	--	1.19	2.40	4.66	1.01	1.21	1.32	NMF	1.37			Relative P/E Ratio	1.15
	--	--	9.4%	7.8%	11.1%	12.2%	8.7%	8.4%	9.2%	8.7%			Avg Ann'l Div'd Yield	6.2%
	--	321.4	320.8	329.2	418.4	406.2	383.4	374.3	503.5	601.6	610	635	Revenues ($mill)	875
	--	37.8%	39.9%	40.2%	39.7%	38.4%	39.9%	41.1%	39.3%	40.5%	41.0%	41.5%	Operating Margin	43.5%
	--	67.4	67.4	65.7	97.7	85.2	87.1	88.7	121.0	139.3	145	155	Depreciation ($mill)	210
	--	d4.5	20.6	11.4	5.3	24.9	28.0	26.4	5.6	29.6	34.0	37.0	Net Profit ($mill)	55.0
	--	NMF	17.4%	29.0%	55.8%	32.3%	36.0%	35.5%	18.9%	36.9%	37.5%	37.5%	Income Tax Rate	40.0%
	--	NMF	6.4%	3.5%	1.3%	6.1%	7.3%	7.1%	1.1%	4.9%	5.6%	5.8%	Net Profit Margin	6.3%
	--	11.1	8.4	14.7	7.3	23.8	60.7	83.0	d35.7	d30.0	d40.0	d35.0	Working Cap'l ($mill)	50.0
	--	555.0	594.0	891.6	880.3	880.0	884.0	875.7	1208.2	1212.1	1215	1215	Long-Term Debt ($mill)	1200
	--	199.2	115.0	155.4	70.1	74.5	67.0	42.3	131.9	147.8	165	180	Shr. Equity ($mill)	300
	--	2.7%	6.0%	3.8%	4.1%	5.6%	5.6%	5.6%	3.1%	5.3%	5.0%	5.5%	Return on Total Cap'l	6.0%
	--	NMF	17.9%	7.4%	7.5%	33.4%	41.8%	62.4%	4.3%	20.0%	20.5%	20.5%	Return on Shr. Equity	18.5%
	--	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	Retained to Com Eq	NMF
	--	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	All Div'ds to Net Prof	NMF

Consolidated Communications Holdings, Inc. was formed through a series of acquisitions and mergers from 1906 to 1935, then known as Illinois Consolidated Telephone Company (ICTC). In 2002, ICTC was sold by McLeodUSA with whom it merged in 1997. The new entity was renamed Consolidated Communications. The company went public in July 2005. The initial offering of 15.6 million shares at $13 was underwritten by Citigroup and CreditSuisse FirstBoston.

CAPITAL STRUCTURE as of 3/31/14
Total Debt $1214.7 mill. Due in 5 Yrs $60.0 mill.
LT Debt $1204.9 mill. LT Interest $55.0 mill. (89% of Capital)
Leases, Uncapitalized Annual rentals $.7 mill.

Pension Assets 12/13 $292.2 mill. Oblig. $337.3 mill.

Preferred Stock None

Common Stock 40,287,654 shs. as of 4/23/14
MARKET CAP: $825 million (Small Cap)

CURRENT POSITION ($MILL.)	2012	2013	3/31/14
Cash Assets	17.9	5.6	6.8
Receivables	58.6	52.0	52.4
Other	32.0	30.1	26.8
Current Assets	108.5	87.7	86.0
Accts Payable	19.2	4.9	7.8
Debt Due	9.6	9.8	9.8
Other	115.4	103.0	103.2
Current Liab	144.2	117.7	120.8

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '11-'13 to '17-'19
Revenues	--	1.5%	8.5%
"Cash Flow"	--	3.5%	10.0%
Earnings	--	5.0%	15.5%
Dividends	--	--	Nil
Book Value	--	-7.0%	18.0%

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	95.4	92.6	92.5	93.8	374.3
2012	93.4	93.0	157.0	160.1	503.5
2013	151.5	151.3	150.8	148.0	601.6
2014	149.6	151.4	154	155	610
2015	158	158	159	160	635

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.25	.18	.19	.26	.88
2012	.06	.09	d.01	.05	.15
2013	.17	.23	.26	.08	.73
2014	.20	.22	.23	.20	.85
2015	.21	.22	.23	.24	.90

Calendar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	.387	.387	.387	.387	1.55
2011	.387	.387	.387	.387	1.55
2012	.387	.387	.387	.387	1.55
2013	.387	.387	.387	.387	1.55
2014	.387	.387			

BUSINESS: Consolidated Communications Holdings, Inc. provides communications services to residential and business customers in Illinois, Pennsylvania, Texas, Kansas, Missouri, and California. The company offers local and long distance service, custom calling features, private line services, dial-up and high-speed Internet access, digital TV, carrier access services, network capacity services over its regional fiber optic network, and directory publishing. It also operates telemarketing, order fulfillment, telephone services to county jails and state prisons, and mobile services. 2013 depreciation rate: 7.8%. CEO & President: Robert J. Currey. Incorporated: Delaware. Address: 121 South 17th Street, Mattoon, Illinois 61938-3987. Telephone: (217) 235-3311. Internet: www.consolidated.com.

Earnings per share for Consolidated Communications jumped around 17% in the first quarter of 2014, versus last year's tally. There was steady growth in data and video revenues. Also, interest expense dropped significantly, given a debt restructuring. Still, the performance of the traditional wireline unit will probably remain constrained by competition from such entities as wireless providers and cable operators. Nevertheless, share net stands to advance 16% for the entire year. Regarding 2015, we look for the bottom line to climb an additional 6%, helped by incremental benefits from the 2012 purchase of SureWest Communications.

Good things seem to be in store over the 2017-2019 horizon. The company has a variety of telecom services in states offering healthy commercial opportunities, such as Pennsylvania and California. One sector that management will continue to focus on is broadband services, since both consumer and business demand for data-based services is expected to rise at a decent pace in the future. Enhanced product and service offerings are another plus.

But there are some risks to consider. Consolidated faces intense competition across all parts of its business. Also, long-term debt is nearly 90% of total capital at present, though the aforesaid refinancing has extended maturities and lowered interest expense. Too, there's a chance that services will be interrupted (leading to a loss of customers and unexpected costs) due to such factors as natural disasters, security breaches, and software defects. The regulatory picture appears uncertain, as well.

The equity ought to attract some investors. For one thing, it is currently ranked 1 (Highest) for Timeliness. That's based, in part, on the company's good recent earnings momentum. What's more, total-return potential out to 2017-2019 looks appealing. Although the dividend payout ratio is on the high side, it ought to improve going forward, with SureWest in the fold.

Frederick L. Harris, III *June 20, 2014*

CASH POSITION	5-Year Av'g	3/31/14
Current Assets to Current Liabilities:	131%	71%
Cash & Equiv's to Current Liabilities:	57%	6%
Working Capital to Revenues:	6%	NMF

(A) Based on diluted shares. Excludes nonrecurring tax benefit: '10, 16¢. Excludes gain from discontinued operations: '13, 3¢. Quarters may not equal total due to change in shares outstanding or rounding. Next earnings report due early Aug.
(B) Div'ds paid early February, May, August and November.
(C) In millions.
(D) Includes intang. At 12/31/13: $643.5 mill., $./share.

Company's Financial Strength	C++
Stock's Price Stability	65
Price Growth Persistence	55
Earnings Predictability	40

FRONTIER COMMUN. NDQ-FTR

RECENT PRICE 5.61 | P/E RATIO 28.1 (Trailing: 23.4 Median: 25.0) | RELATIVE P/E RATIO 1.50 | DIV'D YLD 7.1% | VALUE LINE

TIMELINESS 2 Lowered 4/11/14
SAFETY 4 Lowered 3/22/13
TECHNICAL 4 Lowered 5/30/14
BETA .85 (1.00 = Market)

2017-19 PROJECTIONS

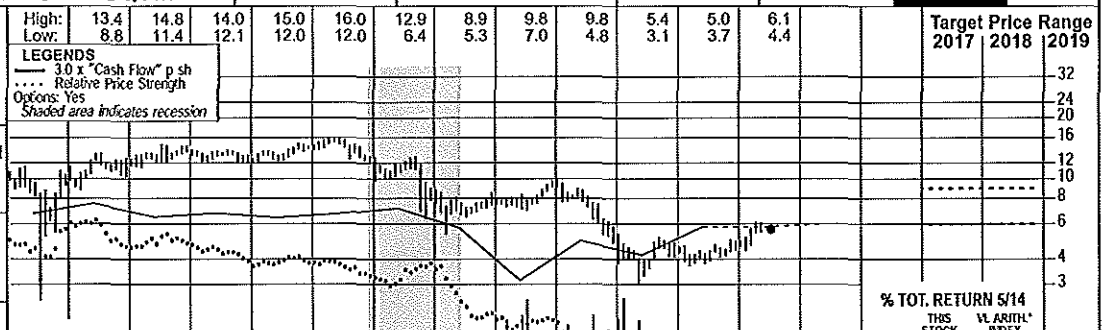
	Price	Gain	Ann'l Total Return
High	9	(+60%)	17%
Low	6	(+5%)	8%

Insider Decisions

	J	A	S	O	N	D	J	F	M
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

	3Q2013	4Q2013	1Q2014
to Buy	231	264	215
to Sell	213	227	253
Hld's(000)	611687	635304	644498



% TOT. RETURN 5/14

	THIS STOCK	VL ARITH.* INDEX
1 yr.	53.0	19.4
3 yr.	-12.3	43.7
5 yr.	34.4	161.9

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	© VALUE LINE PUB. LLC	17-19
5.95	4.15	6.78	8.73	9.45	8.59	6.46	6.59	6.28	6.86	7.19	6.78	3.82	5.27	5.02	4.76	4.65	4.50	Revenues per sh	4.85
1.33	1.07	1.35	1.88	2.26	2.52	2.17	2.26	2.15	2.24	2.39	1.91	1.05	1.65	1.41	1.45	1.45	1.45	"Cash Flow" per sh	1.65
.33	.07	d.11	d.38	d.42	.43	.52	.59	.65	.57	.57	.38	.23	.24	.14	.24	.20	.25	Earnings per sh A	.50
--	--	--	--	--	--	2.50	1.00	1.00	1.00	1.00	1.00	.88	.75	.40	.40	.40	.40	Div'ds Decl'd per sh D	.40
1.86	1.85	2.02	1.89	1.66	.98	.81	.82	.83	.96	.93	.82	.58	.83	.80	.64	.65	.65	Cap'l Spending per sh	.70
6.92	7.33	6.47	6.92	4.15	4.97	4.01	3.17	3.28	3.04	1.67	1.05	5.24	4.49	4.13	4.05	4.45	4.65	Book Value per sh B	5.20
259.15	262.08	265.77	281.29	282.48	284.71	339.63	328.17	322.27	327.75	311.31	312.33	993.86	995.13	998.41	999.46	1002.50	1003.00	Common Shs Outst'g C	1010.00
27.5	NMF	--	--	--	26.4	25.3	22.2	20.5	25.1	18.7	19.3	34.8	31.2	30.9	18.3	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	15.0
1.43	NMF	--	--	--	1.51	1.34	1.18	1.11	1.33	1.13	1.29	2.21	1.98	1.97	1.16			Relative P/E Ratio	1.00
--	--	--	--	--	--	19.0%	7.6%	7.5%	7.0%	9.4%	13.7%	11.0%	10.0%	9.2%	9.2%			Avg Ann'l Div'd Yield	5.3%
2193.0	2162.5	2025.4	2249.3	2237.0	2117.9	3797.7	5243.0	5011.9	4761.6	4650	4550	Revenues ($mill)	4900
163.0	200.2	215.3	189.0	182.7	120.8	152.7	236.0	136.6	233.7	210	250	Net Profit ($mill)	350
25.0%	29.6%	34.6%	37.4%	36.8%	36.2%	42.5%	39.5%	33.0%	35.0%	38.0%	38.0%	Income Tax Rate	33.0%
7.4%	9.3%	10.6%	8.4%	8.2%	5.7%	4.0%	4.5%	2.7%	4.9%	4.5%	5.5%	Net Profit Margin	7.1%
75.8%	79.3%	80.8%	82.6%	90.1%	93.6%	60.5%	64.7%	67.0%	66.0%	61.5%	58.0%	Long-Term Debt Ratio	52.5%
24.2%	20.7%	19.2%	17.4%	9.9%	6.4%	39.5%	35.3%	33.0%	34.0%	38.5%	42.0%	Common Equity Ratio	47.5%
5629.2	5041.2	5518.8	5734.8	5240.7	5121.7	13193	12675	12501	11930	11625	11155	Total Capital ($mill)	11020
3338.3	3186.5	2983.5	3335.2	3240.0	3133.5	7590.6	7547.5	7504.9	7255.8	7500	8000	Net Plant ($mill)	8250
6.3%	7.3%	6.9%	6.6%	6.9%	6.1%	3.1%	4.5%	3.8%	2.0%	2.0%	2.0%	Return on Total Cap'l	3.0%
12.0%	19.2%	20.3%	18.9%	35.2%	36.9%	2.9%	5.3%	3.3%	6.0%	4.5%	5.5%	Return on Shr. Equity	6.5%
12.0%	19.2%	20.3%	18.9%	35.2%	36.9%	2.9%	5.3%	3.3%	5.8%	4.5%	5.5%	Return on Com Equity	6.5%
NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	5.5%	NMF	NMF	Retained to Com Eq	6.5%
NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	All Div'ds to Net Prof D	115%

CAPITAL STRUCTURE as of 3/31/14

Tot. Debt $8128.3 mill. Due in 5 Yrs $1500.0 mill.
LT Debt $7762.7 mill. LT Interest $650.0 mill.
(Total interest coverage: 1.7x)
No Defined Benefit Pension Plan

Pfd Stock None

Common Stock 1,002,282,000 shs.
as of 5/2/14

MARKET CAP: $5.6 billion (Large Cap)

CURRENT POSITION ($MILL.)	2012	2013	3/31/14
Cash Assets	1341.9	880.0	955.7
Other	745.3	738.8	633.8
Current Assets	2087.2	1618.8	1599.4
Accts Payable	338.1	327.3	218.0
Debt Due	560.6	257.9	365.6
Other	654.8	716.4	748.3
Current Liab.	1553.5	1301.6	1331.9
Fix. Chg. Cov.	160%	155%	155%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '17-'19
Revenues	-5.5%	-6.5%	.5%
"Cash Flow"	-3.0%	-9.0%	2.5%
Earnings	--	-19.5%	13.5%
Dividends	--	-7.5%	-7.0%
Book Value	-2.5%	8.0%	1.5%

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	1346.7	1322.3	1290.9	1283.1	5243.0
2012	1268.0	1258.8	1252.5	1232.6	5011.9
2013	1205.4	1190.5	1185.3	1180.4	4761.6
2014	1154.0	1165	1165	1166	4650
2015	1140	1140	1140	1130	4550

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.06	.06	.05	.07	.24
2012	.03	.02	.07	.02	.14
2013	.05	.06	.06	.07	.24
2014	.05	.06	.05	.04	.20
2015	.06	.07	.06	.06	.25

Calendar	QUARTERLY DIVIDENDS PAID D Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	.25	.25	.188	.188	.88
2011	.188	.188	.188	.188	.75
2012	.10	.10	.10	.10	.40
2013	.10	.10	.10	.10	.40
2014	.10	.10			

BUSINESS: Frontier Communications Corporation (formerly Citizens Communications) offers voice, data, high-speed Internet, and satellite video services to consumers and businesses in 27 states. It had also provided competitive local exchange carrier (CLEC) services to retail business customers and to other communications carriers through Electric Lightwave, Inc., which it sold in 7/06. It previously divested its public services businesses. Acquired Commonwealth Telephone Enterprises, 3/07; Verizon's local wireline unit, 7/10. Has about 13,650 employees. Officers/Directors own less than 1% of common (3/14 proxy). Chairman & CEO: Maggie Wilderotter. Inc.: DE. Addr.: 3 High Ridge Park, Stamford, CT 06905. Tel.: 203-614-5600. Internet: www.frontieronline.com.

Frontier Communications posted mixed results in the first quarter. The company reported a year-over-year sales decline for the March interim. Lower demand trends in voice revenues and costs associated with carrier settlements from the fourth quarter of 2013 contributed to the decline. That said, the company managed to offset this with healthy gains in broadband subscriber additions, which totaled a record 37,200 for the quarter. While margins remain under pressure for the time being, management is focused on improving profitability going forward. However, we maintain our 2014 share-net estimate as elevated acquisition costs will remain due to new sales through alternate channels, in addition to a shift toward lower-margin services (such as customer support).

The company's purchase of AT&T's Wireline business should close soon. Indeed, the $2.0 billion cash transaction made last December is expected to close by early fourth quarter. Management believes the move to be cash flow-accretive by next year, and should help support the sustainability of its dividend. Frontier is expected to finance the deal through a $1.9 billion debt offering. The wireline segment has been facing difficulty in recent years, though, this deal is a positive for the company's long-term footprint, in our view.

Broadband should continue to grow aggressively in the near term. After a record number of subscriber additions in the recent quarter, we expect an uptick in sales for this segment. Additionally, the company is continuing to establish new partnerships as incremental sources of revenue. Despite competitive pressures from larger broadband network providers, Frontier Communications still maintains 20 mgb speeds and higher, on more than 60% of its lines. Too, further upgrades and price increases augur well for business in the near term. That said, slower trends in other segments and elevated near-term expenses may offset broadband gains for the time being.

These shares are ranked to outpace the broader market averages in the near term. However, three- to five-year price recovery potential remains modest at this juncture.

Eugene Varghese *June 20, 2014*

(A) Diluted earnings. Excl. nonrecurring gains/(losses): '97, $0.21; '98, ($0.11); '99, $0.38; '02, ($2.01); '03, $0.24; '04, ($0.28). Excl. gain from disc. ops.: '99, $0.10. Quarterly share net may not sum due to rounding. Next earnings report due early August. (B) Incl. intang.: '12, $8919.7 mill. ($9.00/sh.) (C) In mill. (D) Incl. special dividend in '04 of $2.00. New quarterly dividend policy adopted in 7/04. Payments typically made in March, June, September, and December.

Company's Financial Strength	B
Stock's Price Stability	60
Price Growth Persistence	5
Earnings Predictability	60

SHENANDOAH TELCM. NDQ-SHEN

RECENT PRICE 29.26 | P/E RATIO 22.5 (Trailing: 23.6 / Median: 20.0) | RELATIVE P/E RATIO 1.20 | DIV'D YLD 1.4% | VALUE LINE

TIMELINESS 1 Raised 3/28/14
SAFETY 3 New 3/27/09
TECHNICAL 3 Lowered 6/20/14
BETA .95 (1.00 = Market)

2017-19 PROJECTIONS

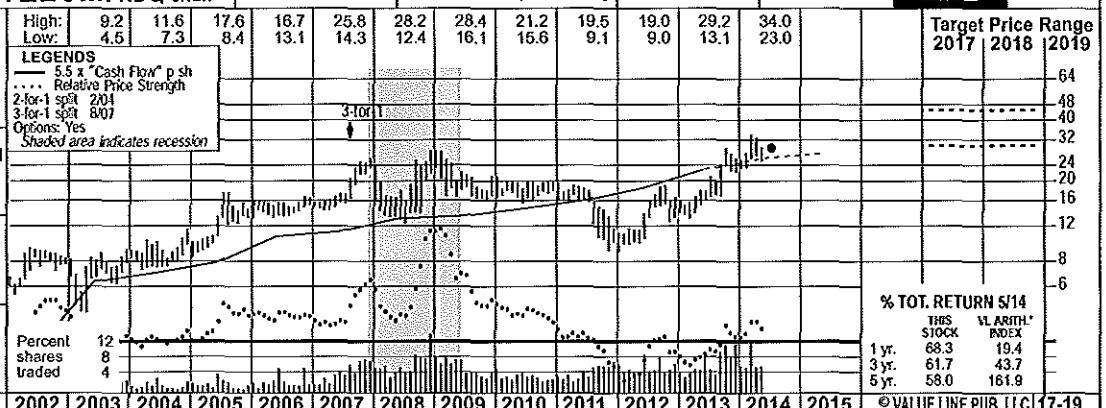
	Price	Gain	Ann'l Total Return
High	45	(+55%)	13%
Low	30	(+5%)	2%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	2	0	1	0	0	15	3
to Sell	0	0	2	0	1	0	0	0	1

Institutional Decisions

	3Q2013	4Q2013	1Q2014
to Buy	40	34	48
to Sell	35	42	33
Hld's(000)	8971	8674	9399



% TOT. RETURN 5/14

	THIS STOCK	VL ARITH.* INDEX
1 yr.	68.3	19.4
3 yr.	61.7	43.7
5 yr.	58.0	161.9

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	© VALUE LINE PUB. LLC	17-19
--	--	2.65	3.93	4.10	4.65	5.29	6.35	7.27	6.01	6.11	6.78	8.20	10.54	12.02	12.85	13.70	14.50	Revenues per sh	20.00
--	--	.76	.88	.51	1.16	1.28	1.44	1.95	2.04	2.38	2.44	2.65	2.91	3.38	4.15	4.75	5.00	"Cash Flow" per sh	6.00
--	--	.44	.35	d.13	.43	.45	.46	.77	.80	1.12	1.06	.86	.57	.69	1.23	1.30	1.55	Earnings per sh A	1.85
--	--	.11	.12	.12	.13	.14	.15	.16	.27	.30	.32	.33	.33	.33	.36	.40	.40	Div'ds Decl'd per sh B	.42
--	--	1.96	1.26	1.00	.55	1.49	1.28	.91	1.24	2.78	2.25	2.35	3.13	3.72	4.85	3.70	3.65	Cap'l Spending per sh	3.45
--	--	2.94	3.30	3.38	4.66	4.97	5.27	5.81	6.43	7.09	7.42	8.01	8.29	8.67	9.75	10.60	11.40	Book Value per sh	14.00
--	--	22.55	22.59	22.66	22.78	22.89	23.06	23.28	23.51	23.63	23.68	23.77	23.84	23.96	24.04	24.10	24.10	Common Shs Outst'g C	25.00
--	--	13.7	15.7	--	16.7	19.3	26.2	19.3	23.2	16.2	18.8	21.1	26.5	19.2	15.6	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	20.0
--	--	.89	.80	--	.95	1.02	1.40	1.04	1.23	.97	1.25	1.34	1.66	1.22	.98			Relative P/E Ratio	1.25
--	--	1.8%	2.1%	1.6%	1.8%	1.7%	1.3%	1.1%	1.5%	1.7%	1.6%	1.8%	2.2%	2.5%	1.9%			Avg Ann'l Div'd Yield	1.1%
						121.0	146.4	169.2	141.2	144.4	160.6	194.9	251.1	288.1	309.0	330	350	Revenues ($mill)	500
						31.9%	28.5%	28.6%	42.6%	52.3%	47.0%	41.9%	35.1%	38.2%	38.5%	39.0%	40.0%	Operating Margin	40.0%
						19.0	22.4	27.3	29.2	29.9	32.6	42.6	55.8	64.4	70.0	80.0	80.0	Depreciation ($mill)	100
						10.2	10.7	18.0	18.8	26.3	25.1	20.4	13.5	16.6	29.6	35.0	40.0	Net Profit ($mill)	50.0
						37.2%	38.5%	40.7%	40.8%	40.2%	41.1%	41.6%	44.1%	42.0%	42.0%	41.0%	41.0%	Income Tax Rate	41.0%
						8.5%	7.3%	10.6%	13.3%	18.2%	15.6%	10.5%	5.4%	5.8%	9.6%	10.6%	11.4%	Net Profit Margin	10.0%
						12.6	d1.9	9.6	17.0	48.0	28.0	25.9	8.9	58.3	54.0	70.0	70.0	Working Cap'l ($mill)	85.0
						47.9	31.4	21.9	17.7	37.0	28.4	180.3	158.7	230.2	224.3	250	225	Long-Term Debt ($mill)	250
						113.8	121.6	135.2	151.1	167.6	175.7	190.3	197.7	207.8	234.3	255	275	Shr. Equity ($mill)	350
						7.3%	8.0%	12.2%	11.7%	13.1%	12.6%	6.1%	5.0%	4.7%	7.2%	7.5%	8.5%	Return on Total Cap'l	9.0%
						9.0%	8.8%	13.3%	12.4%	15.7%	14.3%	10.7%	6.8%	8.0%	12.6%	13.5%	14.5%	Return on Shr. Equity	14.5%
						6.1%	5.9%	9.4%	8.6%	11.8%	10.3%	6.9%	3.1%	4.4%	6.7%	8.0%	8.5%	Retained to Com Eq	8.5%
						32%	33%	30%	31%	25%	28%	36%	54%	45%	29%	28%	24%	All Div'ds to Net Prof	21%

CAPITAL STRUCTURE as of 3/31/14
Total Debt $230.0 mill. Due in 5 Yrs $70.0 mill.
LT Debt $218.5 mill. LT Interest $8.0 mill.
(Total interest coverage: 5.8x)
(51% of Cap'l)
No Defined Benefit Pension Plan

Leases, Uncapitalized Annual rentals $11.6 mill.

Common Stock 24,096,146 shares
as of 4/24/14

MARKET CAP: $700 million (Small Cap)

CURRENT POSITION ($MILL.)	2012	2013	3/31/14
Cash Assets	71.1	38.3	53.7
Receivable	25.3	25.8	25.5
Other	20.0	33.8	23.1
Current Assets	116.4	97.9	102.3
Accts Payable	31.7	12.6	5.7
Debt Due	2.0	5.8	11.5
Other	24.4	25.5	23.9
Current Liab.	58.1	43.9	41.1

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '17-'19
Revenues	11.0%	9.5%	10.0%
"Cash Flow"	15.5%	10.5%	10.5%
Earnings	12.5%	1.0%	14.5%
Dividends	11.0%	11.0%	3.5%
Book Value	10.0%	7.5%	7.5%

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	60.4	61.6	62.6	66.5	251.1
2012	68.8	71.4	72.9	75.0	288.1
2013	76.0	77.5	77.5	78.0	309.0
2014	80.5	84.5	80.0	85.0	330
2015	85.0	85.0	90.0	90.0	350

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.13	.13	.15	.16	.57
2012	.19	.24	.06	.21	.69
2013	.35	.33	.28	.27	1.23
2014	.36	.32	.31	.31	1.30
2015	.40	.40	.35	.40	1.55

Calendar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	--	--	--	.33	.33
2011	--	--	--	.33	.33
2012	--	--	--	.33	.33
2013	--	--	--	.36	.36
2014					

BUSINESS: Shenandoah Telecommunications Company provides voice, video and data services to end-user customers and other communications providers. Also operates a fiber optic network. Three primary operating segments are: Wireless (60% of 2013 rev.), as a PCS affiliate of Sprint Nextel; Wireline (16%), including local and long-distance telephone and DSL; and Cable TV (24%), "Shenandoah Cable". Acq. JetBroadband Holdings, 7/10; NTC Communications, 11/04; certain cable assets and customers from Rapid Communications, 12/08. Has 682 emplys. Off. & dir. own 7.1% of common stock (3/14 Proxy). Pres. & CEO: Christopher E. French. Inc.: VA. Address: 500 Shentel Way, Edinburg, VA 22824. Tel.: 540-984-4141. Internet: www.shentel.com.

Shenandoah Telecom performed well to start off the year. The rural telecom provider posted earnings slightly above our March-period estimate. The company attributes the performance to increasing smartphone penetration, which now makes up about 77% of the postpaid customer base. That said, there was a negative impact from charges related to network upgrades for 4G LTE data service. However, management believes these costs should subside going forward as upgrades have been completed. We expect continued subscriber growth in the wireless segment for both postpaid and prepaid service. Still, risks abound as the industry remains very competitive, with major players looking to consolidate.

The company should now be able to benefit from its Sprint Framily and Eazy Pay services. Management previously mentioned that it would not be able to offer its Framily and Eazy Pay plans until late April. This augurs well for June-period results, and going forward. Management noted that Sprint would reimburse Shenandoah for inventory used to satisfy customer needs, while the entire transaction is recorded on Sprint's books. The company should benefit from not having a subsidy on a phone sold on Eazy Pay through Shentel-controlled channels. While Shenandoah did not provide any details on the financial impact this could have, we do expect this to be a growth factor in the near term.

The churn rate may be hurt by the loss of Assurance Wireless customers. The subsidiary began its annual reauthorization of its customer base in March, which is likely to continue through the end of June. This led to a loss of about several thousand Assurance customers that may increase the company's churn rate (a measure of disconnections). While we expect this figure to be elevated through the second period, this trend should reverse in the second half of the year. Shenandoah will likely focus on efforts to market its network and data services to help offset these losses.

These shares now possess our Highest rank for Timeliness (1). However, long-term price appreciation potential is underwhelming.

Eugene Varghese *June 20, 2014*

(A) Diluted earnings. Excludes gains / (losses) from discontinued operations: '08, (8¢); '09, (42¢); '10, (3¢); '11, (2¢). Excludes nonrecurring gain / (loss): '10, (7¢). 2012 earnings may not sum due to rounding. Next earnings report due early August. (B) Dividends paid in early December. (C) In mill., adj. for splits.

Company's Financial Strength	B
Stock's Price Stability	35
Price Growth Persistence	60
Earnings Predictability	60

TELEPHONE&DATA SYS. NYSE-TDS

RECENT PRICE 26.36 | P/E RATIO NMF (Trailing: 18.4 Median: 27.0) | RELATIVE P/E RATIO NMF | DIV'D YLD 2.0% | VALUE LINE

TIMELINESS 3 Lowered 3/21/14
SAFETY 3 New 9/28/07
TECHNICAL 4 Raised 6/20/14
BETA 1.15 (1.00 = Market)

2017-19 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	35	(+35%)	10%
Low	20	(-25%)	-4%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	1	0	0	0	0
to Sell	0	2	2	0	2	1	0	0	0

Institutional Decisions

	3Q2013	4Q2013	1Q2014
to Buy	125	117	95
to Sell	105	113	118
Hld's(000)	84719	85128	86662

High:	29.4	39.2	40.7	50.8	67.8	60.9	33.1	34.9	34.4	29.1	31.5	28.4	21.3
Low:	16.2	28.5	33.0	32.3	48.8	19.5	20.2	26.5	17.8	19.2	20.6	21.3	

LEGENDS
7.0 x "Cash Flow" p sh
Relative Price Strength
2-for-1 split 5/05
Options: Yes
Shaded area indicates recession

Target Price Range 2017 | 2018 | 2019
128
96
80
64
48
40
32
24
16
12

Percent shares traded 18 12 6

% TOT. RETURN 5/14

	THIS STOCK	VL ARITH.* INDEX
1 yr.	21.7	19.4
3 yr.	-9.9	43.7
5 yr.	-0.1	161.9

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	© VALUE LINE PUB. LLC	17-19
13.54	14.77	18.22	20.32	23.40	27.76	29.77	31.50	34.38	37.76	41.75	43.62	44.14	43.94	49.52	45.06	45.35	47.15	Revenues per sh	50.00
2.52	3.34	4.33	4.84	5.15	5.40	5.68	7.15	7.08	8.57	6.92	8.20	8.01	8.20	8.30	10.65	9.20	9.75	"Cash Flow" per sh	5.20
d.54	.91	1.17	1.32	1.15	.60	.34	1.75	1.26	2.63	.74	1.63	1.25	1.68	.75	1.28	d.40	d.15	Earnings per sh A	1.00
.20	.21	.23	.25	.27	.29	.30	.32	.34	.36	.38	.40	.41	.43	.49	.51	.54	.56	Div'ds Decl'd per sh B■	.57
4.19	3.01	3.57	5.50	7.05	6.26	6.39	5.73	5.69	5.47	6.03	5.83	6.68	8.24	9.22	8.12	7.85	8.00	Cap'l Spending per sh	7.15
16.78	18.61	30.82	27.56	23.87	24.98	25.53	26.65	28.12	30.70	30.88	32.81	33.75	33.60	37.16	43.75	44.00	44.50	Book Value per sh	40.50
133.36	132.95	127.70	127.40	127.60	124.10	124.96	125.72	126.94	127.87	121.96	115.11	112.99	117.90	107.94	108.76	107.00	106.00	Common Shs Outst'g C	104.00
--	39.2	41.6	34.2	27.3	39.2	NMF	20.9	30.9	21.8	51.0	16.8	24.4	16.0	31.8	19.9	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	27.5
--	2.23	2.70	1.75	1.49	2.23	NMF	1.11	1.67	1.16	3.07	1.12	1.55	1.00	2.02	1.13			Relative P/E Ratio	1.70
1.0%	.6%	.5%	.6%	.9%	1.2%	.9%	.9%	.9%	.6%	1.0%	1.4%	1.4%	1.6%	2.1%	2.0%			Avg Ann'l Div'd Yield	2.1%
3720.4	3960.1	4364.5	4829.0	5092.0	5020.7	4986.8	5180.5	5345.3	4901.2	4850	5000	Revenues ($mill)	5200
42.4	221.3	161.6	343.2	93.5	193.9	143.8	200.5	81.8	141.9	d45.0	d16.0	Net Profit ($mill)	105
52.7%	35.5%	36.0%	39.3%	19.7%	34.5%	32.8%	31.2%	37.5%	43.2%	33.0%	33.0%	Income Tax Rate	33.5%
1.1%	5.6%	3.7%	7.1%	1.8%	3.9%	2.9%	3.9%	1.5%	2.9%	NMF	NMF	Net Profit Margin	2.0%
49.8%	46.1%	38.5%	26.3%	26.9%	25.2%	25.2%	25.0%	27.0%	28.0%	28.0%	28.0%	Long-Term Debt Ratio	30.0%
43.4%	46.2%	52.5%	63.2%	62.4%	63.6%	64.0%	64.6%	62.9%	61.0%	61.0%	61.0%	Common Equity Ratio	58.0%
7358.2	7244.3	6800.8	6210.1	6038.6	5935.3	5959.8	6131.7	6377.1	6450	6500	6600	Total Capital ($mill)	7600
3385.5	3526.2	3581.4	3525.1	3568.9	3507.8	3558.3	3784.5	3997.3	3525	3550	3575	Net Plant ($mill)	4000
2.0%	4.8%	4.5%	8.1%	3.0%	4.9%	3.8%	4.7%	2.2%	1.5%	NMF	NMF	Return on Total Cap'l	2.0%
1.3%	6.6%	4.5%	8.7%	2.5%	5.1%	3.6%	5.1%	2.0%	2.5%	NMF	NMF	Return on Shr. Equity	3.0%
1.3%	6.6%	4.5%	8.7%	2.5%	5.1%	3.6%	5.1%	2.0%	2.5%	NMF	NMF	Return on Com Equity	2.5%
.1%	5.4%	3.3%	7.6%	1.2%	3.9%	2.5%	3.8%	.7%	2.5%	NMF	NMF	Retained to Com Eq	2.5%
90%	18%	27%	13%	51%	24%	33%	24%	65%	39%	NMF	NMF	All Div'ds to Net Prof	56%

CAPITAL STRUCTURE as of 3/31/14
Total Debt $1721.5 mill. Due in 5 Yrs $6.4 mill.
LT Debt $1720.1 mill. LT Interest $95.0 mill.
(LT Interest earned: 2.1x; total interest coverage: 2.1x)
No Defined Benefit Pension Plan

Pfd Stock $.8 mill. Pfd Div'd $.3 mill.
Incl. 9,000 shares, liquidation value of $100 per share.

Common Stock 108,749,794 shs.
(Includes 7,175,948 Series A com. shs.)
MARKET CAP: $2.9 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2012	2013	3/31/14
Cash Assets	856.2	880.1	913.0
Other	907.2	1207.2	1076.1
Current Assets	1763.4	2087.3	1989.1
Accts Payable	377.3	496.1	414.0
Debt Due	1.2	1.6	1.4
Other	546.1	694.1	609.8
Current Liab.	924.6	1191.8	1025.2

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '17-'19
Revenues	8.5%	6.0%	2.5%
"Cash Flow"	5.5%	1.5%	2.0%
Earnings	--	-8.0%	4.0%
Dividends	6.0%	5.5%	4.0%
Book Value	2.5%	4.0%	3.0%

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	1258	1279	1325	1316	5180.5
2012	1305	1323	1370	1346	5345.3
2013	1308	1228	1181	1184	4901.2
2014	1196	1204	1215	1235	4850
2015	1230	1245	1255	1270	5000

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.37	.80	.63	d.12	1.68
2012	.48	.39	.27	d.39	.75
2013	.01	1.42	d.09	d.06	1.28
2014	.16	d.15	d.08	d.33	d.40
2015	d.06	.07	.12	d.28	d.15

Calendar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	.104	.104	.104	.104	.41
2011	.118	.118	.118	.118	.47
2012	.123	.123	.123	.123	.49
2013	.128	.128	.128	.128	.51
2014	.134	.134			

BUSINESS: Telephone & Data Systems, Inc. is a telecommunications service company with cellular and landline operations. As of 12/31/13, served about 6.8 million customers in 36 states. Cellular oper. provided 80% of '13 revenue, telephone operations, 20%. Subsidiaries include 84.0%-owned U.S. Cellular and wholly owned TDS Telecom. '13 depreciation rate: 9.1%. About 10,500 employees. Off. & dir. control 98.7% of Series A common shares (and 56% of voting power), BlackRock, Inc., 9.9% of common (not Series A), Capital Research Global Investors, 9.8% (4/13 Proxy). President and CEO: LeRoy T. Carlson, Jr. Incorporated: Delaware. Address: 30 North LaSalle St., Suite 4000, Chicago, Illinois 60602. Telephone: 312-630-1900. Internet: www.teldta.com.

Telephone & Data Systems has once again been active on the acquisition trail. In early May, the company inked an agreement to acquire substantially all of the assets of a group of companies operating as BendBroadband for $261 million. This Bend, Oregon based entity is a full-service communications company, offering an extensive range of broadband, fiber connectivity, cable television, and telephone service for commercial and residential customers in central Oregon, and generated annual revenues of $70 million in 2013. We look for the transaction, which is subject to the typical regulatory approvals, to close in the third quarter of this year. This deal comes on the heels of the 2013 acquisitions of MSN Communications, Inc. and Baja Broadband, LLC.

Meanwhile, the company is likely to report a net loss both this year and next. Truth be told, TDS posted an impressive and rather unexpected jump in first-quarter earnings, on a 9% year-over-year drop in revenues. The bottom-line improvement, however, was largely the result of U.S. Cellular's divestiture transaction, the deconsolidation of certain U.S. Cellular partnerships, and acquisitions at TDS Telecom. Although we have decided to include the results of these transactions in our earnings presentation, additional boosts from similar sources are not guaranteed. What's more, the 84%-owned U.S. Cellular's recent performance as rather underwhelming, as the company is feeling the effects of an increasingly competitive wireless market and the challenges that regional providers face in competing against the nationwide carriers. All told, TDS ought to post a net loss of $0.40 a share this year, with an improvement in the cards for the following year.

At present, Telephone & Data Systems stock is not a particularly enticing short- or long-term play. It is currently ranked to run in tandem with the year-ahead market, and given that it is trading well within our 3- to 5-year Target Price Range, it is unlikely to curry favor with long-term investors. Too, it is important to note that our Target Price Range is largely dependent on TDS's ability to return to its historical earnings growth rates, which at the moment, seems uncertain.

Kenneth A. Nugent *June 20, 2014*

(A) Diluted earnings. Next earnings report early August. Excl. gain from disc. ops.: '01, 41¢. Excl. extra. losses/gains: 07, 36¢. Excl. n/r gains: '98, $2.21; '99, $3.06; '00, ($0.15); '01, ($0.15); '02 ($19.35); '03, ($0.02); '04, ($0.63). (B) Dividends historically paid in late March, June, Sept., & Dec. ■ Div'd re. plan avail. (5% discount). (C) In millions, adjusted for stock split. Common stock, 1 vote/sh.; Series A, 10 votes/sh.

Company's Financial Strength	B
Stock's Price Stability	60
Price Growth Persistence	20
Earnings Predictability	35

WINDSTREAM CORP. NDQ-WIN

RECENT PRICE 9.67 | P/E RATIO 38.7 (Trailing: 44.0 Median: NMF) | RELATIVE P/E RATIO 2.07 | DIV'D YLD 10.3% | VALUE LINE

TIMELINESS 2 Raised 6/20/14
SAFETY 3 New 12/29/06
TECHNICAL 3 Lowered 4/18/14
BETA .90 (1.00 = Market)

2017-19 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	11	(+15%)	12%
Low	7	(-30%)	4%

Insider Decisions

	J	A	S	O	N	D	J	F	M
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	2

Institutional Decisions

	3Q2013	4Q2013	1Q2014
to Buy	170	195	205
to Sell	218	197	170
Hld's(000)	294703	302535	316916

LEGENDS
4.0 x "Cash Flow" p sh
Relative Price Strength
Options: Yes
Shaded area indicates recession

High: 14.4 15.6 14.0 11.6 14.4 14.0 12.5 10.0 9.8
Low: 11.1 12.4 6.4 6.3 6.0 10.8 7.9 7.5 7.2

Target Price Range 2017 2018 2019

Percent shares traded 45 30 15

% TOT. RETURN 5/14

	THIS STOCK	VL ARITH.* INDEX
1 yr.	34.8	19.4
3 yr.	-2.5	43.7
5 yr.	86.6	161.9

Windstream traces its roots to Allied Telephone Co. of Little Rock, Arkansas formed in 1943. In 1983, Allied merged with Mid-Continent Telephone Co. of Ohio, creating ALLTEL Corp. ALLTEL acquired Standard Group, Inc. and Aliant Communications in 1999. That telco purchased phone lines from GTE, Verizon and others. On 7/17/06, in a $9.1 billion equity and debt deal, ALLTEL spun off its wireline assets, which merged with VALOR Communications to form Windstream. Since then, the company has grown via several multi-million dollar acquisitions.

CAPITAL STRUCTURE as of 3/31/14
Total Debt $8706.3 mill. Due in 5 Yrs $3000.0 mill.
LT Debt $8617.6 mill. LT Interest $600.0 mill.
(Total interest coverage: 2.6x)
Leases, Uncapitalized Annual rentals $101.0 mill.
Pension Assets-12/13 $959.7 mill. Oblig. $1210.6 mill.
Pfd Stock None
Common Stock 602,659,992 shs. as of 4/30/14
MARKET CAP: $4.9 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2012	2013	3/31/14
Cash Assets	158.5	57.9	80.6
Other	1141.6	1126.9	1062.8
Current Assets	1300.1	1184.8	1143.4
Accts Payable	363.7	385.9	355.9
Debt Due	881.6	85.0	88.7
Other	923.1	974.7	983.0
Current Liab.	2168.4	1445.6	1427.6
Fix. Chg. Cov.	216%	130%	130%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '17-'19
Revenues	--	4.5%	2.5%
"Cash Flow"	--	2.0%	2.0%
Earnings	--	-9.5%	4.0%
Dividends	--	10.5%	Nil
Book Value	--	10.0%	1.0%

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	1023	1030	1023	1210	H4286
2012	1538	1535	1545	1538	6156
2013	1500	1506	1504	1491	6001
2014	1465	*1470*	*1490*	*1470*	*5900*
2015	*1450*	*1450*	*1480*	*1470*	*5850*

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.18	.18	.17	.15	H.68
2012	.13	.12	.12	.11	.48
2013	.09	.06	.05	.09	.29
2014	.02	*.07*	*.08*	*.08*	*.25*
2015	*.10*	*.10*	*.10*	*.10*	*.40*

Calendar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2010	.25	.25	.25	.25	1.00
2011	.25	.25	.25	.25	1.00
2012	.25	.25	.25	.25	1.00
2013	.25	.25	.25	.25	1.00
2014	.25	.25			

	2004	2005	2006	2007D	2008E	2009	2010F	2011	2012	2013	2014	2015	© VALUE LINE PUB. LLC	17-19
	--	--	6.36	7.17	7.22	6.86	7.36	7.31	10.47	10.07	*9.80*	*9.70*	Revenues per sh	*10.05*
	--	--	1.89	2.14	2.12	2.00	1.99	2.06	2.69	2.20	*2.10*	*2.15*	"Cash Flow" per sh	*2.55*
	--	--	1.03	.98	.98	.76	.66	.68	.48	.29	*.25*	*.40*	Earnings per sh A	*.80*
	--	--	.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*1.00*	*1.00*	Div'ds Decl'd per sh B ■	*1.00*
	--	--	.78	.80	.72	.68	.82	1.20	1.87	1.40	*1.25*	*1.25*	Cap'l Spending per sh	*1.10*
	--	--	.99	1.54	.57	.60	1.65	2.56	1.88	1.45	*1.30*	*1.45*	Book Value per sh	*2.20*
	--	--	476.80	454.50	439.40	436.80	504.30	586.30	588.20	596.00	*603.00*	*604.00*	Common Shs Outst'g C	*608.00*
	--	--	13.0	14.5	11.5	11.7	17.6	18.4	21.6	29.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*11.5*
	--	--	.70	.77	.69	.78	1.12	1.15	1.38	1.85			Relative P/E Ratio	*.75*
	--	--	1.5%	7.0%	8.9%	11.2%	8.6%	8.0%	9.7%	11.8%			Avg Ann'l Div'd Yield	*11.1%*
	2933.5	2923.5	3033.3	3260.8	3171.5	2996.6	3712.0	4285.7	6156.3	6000.9	*5900*	*5850*	Revenues ($mill)	*6100*
	386.3	381.7	450.5	465.8	434.9	334.5	310.7	361.4	28.9	176.3	*180*	*220*	Net Profit ($mill)	*280*
	40.2%	41.2%	38.3%	35.1%	39.4%	38.7%	38.5%	36.9%	34.3%	*38.0%*	*38.0%*	*38.0%*	Income Tax Rate	*32.0%*
	13.2%	13.1%	14.9%	14.3%	13.7%	11.2%	8.4%	8.4%	4.6%	2.9%	*3.1%*	*3.8%*	Net Profit Margin	*6.9%*
	6.6%	6.4%	92.1%	88.4%	95.5%	96.0%	89.6%	85.6%	88.0%	91.0%	*92.0%*	*91.0%*	Long-Term Debt Ratio	*85.0%*
	93.4%	93.6%	7.9%	11.6%	4.5%	4.0%	10.4%	14.4%	12.0%	9.0%	*8.0%*	*9.0%*	Common Equity Ratio	*15.0%*
	3967.6	3727.9	5926.0	6031.0	5610.5	6532.1	8017.2	10435	9219.7	9472.2	*9175*	*9675*	Total Capital ($mill)	*9425*
	3074.3	2963.6	3939.8	4042.3	3897.1	3992.6	4772.7	5708.1	5862.7	5365.8	*5030*	*4700*	Net Plant ($mill)	*3380*
	10.0%	10.5%	9.4%	11.4%	11.4%	8.2%	7.1%	6.1%	6.3%	2.0%	*2.0%*	*2.5%*	Return on Total Cap'l	*4.5%*
	10.4%	10.9%	95.9%	66.6%	172.4%	128.3%	37.4%	24.1%	25.5%	20.5%	*23.0%*	*25.0%*	Return on Shr. Equity	*31.0%*
	10.4%	10.9%	95.9%	66.6%	172.4%	128.3%	37.4%	24.1%	25.5%	20.5%	*23.0%*	*25.0%*	Return on Com Equity	*31.0%*
	10.4%	10.9%	74.1%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	*NMF*	*NMF*	Retained to Com Eq	*NMF*
	--	--	23%	102%	102%	NMF	NMF	NMF	NMF	NMF	*NMF*	*NMF*	All Div'ds to Net Prof	*NMF*

BUSINESS: Windstream Corp. is one of the largest rural wireline telecom companies in the U.S. Provides local telephone service to over three million customers across 29 states. Also operates long distance phone, Internet, product distribution, and communication and technology solutions. Sold directory publishing business 11/07, wireless operations 12/08. Local and long-haul fiber network: 115,000 miles. Access lines: 3.5 mill. Has 1.35 mill. broadband and 426,100 digital-TV accounts. Off. & dir. own less than 1% of com; Vanguard Group, Inc., 6.8% (4/14 proxy). 2013 depreciation rate: 6.6%. Has 13,434 empls. Chmn: Dennis Foster. Pres. & CEO: J.Gardner. Inc.: DE. Addr.: 4001 Rodney Parham Rd., Little Rock, AR 72212. Tel.: 501-748-7000. Internet: www.windstream.com.

Windstream struggled to meet our share-net estimate for the first quarter. Indeed, March-period earnings fell below our expectation by $0.08, to $0.02 a share. Management attributed much of the decline to higher-than-expected advertising spending, as well as increased costs of services. That said, the company believes it can right the ship by the second half of the year as these costs are expected to subside. In addition, while business service revenues were flat, year over year, Windstream believes this segment to be a continuing growth factor, particularly as wireless carriers are decommissioning their legacy circuits and offsetting these with fiber-to-the-tower revenues. However, for the time being, the company will face challenges with higher expenses and limited growth opportunities due to competitive pressures. We have lowered our 2014 earnings estimate by $0.15, to $0.25 a share, considering the challenging operating environment.

Management remains focused on certain strategic growth initiatives to help drive revenues. The company's Enterprise segment should experience gains in the near term, driven by expected price hikes later this year, coupled with lower marketing spending and employee-related costs from recent restructuring efforts, along with the deployment of new 100-gig solutions to help expand bandwidth. In addition, Windstream will be looking to transition to an IP network to help enhance its broadband network, providing increased capabilities to its customers, while pursuing alternate growth initiatives. That said, WIN is not seeking any acquisitions in the near term, unless the right opportunity arises, particularly for its Business division. We believe better cost management will help improve bottom-line results for the long run, though some headwinds remain in the Small Business and Voice segments. All in all, we have lowered our 2015 earnings estimate by a nickel, to $0.40 a share, as the company's cost-reduction efforts will likely bear fruit gradually.

These timely shares offer a high yield. However, dividends are not covered by earnings, and long-term price recovery potential remains limited.

Eugene Varghese *June 20, 2014*

(A) Diluted earnings. Excludes net nonrecurring gains/(loss): '06, 22¢; '07, 96¢; '08, (5¢); '11, (35¢); Q1 '12 (2¢). Next earnings report due early August. (B) Dividends paid in mid-January, April, July and October. ■ Dividend reinvestment plan available. (C) In millions. (D) Excludes directory publishing unit and includes CT Comm. (E) Excludes former CT Comm. wireless ops. (F) Includes D&E Comm. and Lexcom (G) Incl. NuVox and Iowa Telecom beginning 6/1/10. (H) Incl. PAETEC acquisition.

Company's Financial Strength	B
Stock's Price Stability	80
Price Growth Persistence	30
Earnings Predictability	75

Business Descriptions Reported at YahooFinance:

CenturyLink, Inc. operates as an integrated telecommunications company in the United States. The company operates through four segments: Consumer, Business, Wholesale, and Data Hosting. It offers local and long distance calling services; broadband services; private line, dedicated internet access, and digital subscriber line services; and multi-protocol label switching, a data networking technology that delivers service to support real time voice and video. The company also provides hosting services, including centralized information technology infrastructure; and managed services comprising cloud and traditional computing, application management, back-up, and storage services, as well as planning, design, implementation, and support services. In addition, it offers collocation, Ethernet, and facilities-based video services; satellite digital television; voice over internet protocol services; wireless services under Verizon brand name; integrated services digital network services; wide area network services; and switched access services to wireline and wireless service providers. Further, the company provides data integration services, including the sale of telecommunications equipment to customers for use on their premises, as well as related professional services, such as network management, installation and maintenance of data equipment, and building of proprietary fiber-optic networks for governmental and other business customers. Additionally, CenturyLink, Inc. leases and subleases space in its office buildings, warehouses, and other properties. As of December 31, 2013, it operated approximately 13.0 million access lines in 37 states and served approximately 6.0 million broadband subscribers; and operated 55 data centers in North America, Europe, and Asia. The company was founded in 1968 and is based in Monroe, Louisiana. (Source: Yahoo!Finance.com)

Consolidated Communications Holdings, Inc., together with its subsidiaries, provides a range of communications services to residential and business clients in Illinois, Texas, Pennsylvania, California, Kansas, and Missouri. It offers a range of telecommunications services, including local and long-distance, high-speed broadband Internet access, video, VOIP, custom calling features, private line, carrier grade access, directory publishing, and Competitive Local Exchange Carrier services, as well as network capacity services over its regional fiber optic networks. The company also sells and supports telecommunications equipment, such as key, private branch exchange, and IP-based telephone systems to business clients. As of December 31, 2013, it had approximately 257 thousand access lines, 123 thousand voice connections, 255 thousand data and Internet connections, and 111 thousand video connections. The company was founded in 1894 and is headquartered in Mattoon, Illinois. (Source: Yahoo!Finance.com)

Frontier Communications Corporation, a communications company, provides regulated and unregulated voice, data, and video services to residential, business, and wholesale customers in the United States. The company offers data and Internet services comprising residential services, such as wireline and wireless broadband, dial up Internet, portal, and e-mail products; commercial services, such as Ethernet, dedicated Internet, multiprotocol label switching, time

division multiplexing data transport services, and optical transport services; Frontier Secure suite of products for computer security and technical support; and commercial voice over Internet protocol services. It also provides local and long distance voice services, including local voice services; enhanced services, such as call forwarding, conference calling, caller identification, voicemail, and call waiting services; long distance network services; and packages of communications services. In addition, the company offers switched access services that facilitate other carriers to use the company s facilities to originate and terminate their local and long distance voice traffic. Further, it provides satellite and terrestrial video services; a range of third-party communications equipment to small, medium, and enterprise business customers; and directories. As of December 31, 2013, Frontier Communications Corporation had 2,803,500 residential customers; 270,800 business customers; 1,866,700 broadband subscribers; and 385,400 video subscribers. The company was formerly known as Citizens Communications Company and changed its name to Frontier Communications Corporation in July 2008. Frontier Communications Corporation was founded in 1927 and is based in Stamford, Connecticut. (Source: Yahoo!Finance.com)

Hickory Tech Corporation, doing business as HickoryTech and Enventis, provides integrated communication services to business and residential customers. It operates through three segments: Fiber and Data, Equipment, and Telecom. The Fiber and Data segment provides data, Internet, voice, and voice over Internet protocol (VoIP) services to wholesale, enterprise, and commercial business customers. Its operations include Ethernet, private line, multiprotocol label switching networking, data center, Internet, and hosted VoIP SingleLink services. The Equipment segment designs and implements network solutions, such as TelePresence Video, Unified Communications, and data center solutions. This segment also offers advisory, implementation, development, and support services for equipment solutions; and Smartnet maintenance contracts in collaboration with Cisco systems, as well as provides single-point-of-contact for the support of applications, systems, and infrastructure. The Telecom segment offers bundled residential and business services, including high-speed Internet, broadband services, digital TV, local voice, and long distance services. This segment also operates incumbent local exchange carrier that provides services in 13 South Central Minnesota communities and 13 rural Northwest Iowa communities; and competitive local exchange carrier, which offers services in South Central Minnesota and near Des Moines, Iowa. The company also provides billing and customer management software and related services; and operates a fiber network spanning approximately 4,200 fiber route miles serving Minnesota, Iowa, North Dakota, South Dakota, and Wisconsin. The company was formerly known as Hickory Tech Corporation and changed its name to Enventis Corporation in May 2014. Hickory Tech Corporation was founded in 1898 and is headquartered in Mankato, Minnesota. (Source: Yahoo!Finance.com)

Shenandoah Telecommunications Company, a diversified telecommunications holding company, provides both regulated and unregulated telecommunications services to end-user customers and other telecommunications providers in Virginia, West Virginia, central Pennsylvania, and western Maryland. It offers a suite of voice, video, and data communications services. The company operates in three segments: Wireless, Cable, and Wireline. The Wireless segment provides digital wireless services; and wireless mobility communications network products and services under the Sprint brand. As of December 31, 2013, it owned 153 cell site towers built on leased land, leased space on 151 towers, and had 217 leases with other wireless communications providers. The Cable segment provides video, Internet, and voice services in Virginia, West Virginia and portions of western Maryland, and leases fiber optic facilities. The Wireline segment provides regulated and unregulated voice services, dial-up and DSL Internet access, and long distance access services in Shenandoah County and portions of Rockingham, Frederick, Warren, and Augusta counties in Virginia, and leases fiber optic facilities throughout the northern Shenandoah Valley of Virginia, northern Virginia and adjacent areas along the Interstate 81 corridor. Shenandoah Telecommunications Company also offers its telephone service, cable television, unregulated communications equipment sales and services, and Internet access under the Shentel brand. The company was founded in 1902 and is headquartered in Edinburg, Virginia. (Source: Yahoo!Finance.com)

Telephone and Data Systems, Inc., a diversified telecommunications service company, provides wireless and wireline telecommunications services in the United States. The company operates in three segments: Wireline, Cable, and Hosted and Managed Services. The company s wireless services include postpaid national plans; data and business rate plans; prepaid service plans; smartphone messaging, data, and Internet services; new services comprising family protector and an international dialing plan; multimedia services, including digital radio, Mobile TV, and gaming; and data services that enables customers to access news, weather, sports information, games, ring tones, and other services. It also offers wireless devices, including handsets, modems, mobile hotspots, home phone, and tablets; and accessories comprising carrying cases, hands-free devices, batteries, battery chargers, memory cards, and other products. In addition, the company provides voice services, such as local and long-distance telephone service, voice over Internet protocol, voice mail, caller ID, and call forwarding services; broadband services, which include digital subscriber lines and other high-speed Internet data services; network access services; and Internet protocol television and satellite video services. Further, it offers cloud computing, colocation, hosted application management, and hosted and managed services; and planning, engineering, procurement, sales, installation, and management of information technology infrastructure hardware solutions, as well as printing and distribution services. As of December 31, 2013, the company served approximately 4.8 million wireless customers and 1.1 million wireline connections. Telephone and Data Systems, Inc. sells its products through retail sales and service centers, direct sales, third-party retailers, and independent agents, as well as

through Website and telesales. The company was founded in 1968 and is headquartered in Chicago, Illinois. (Source: Yahoo!Finance.com)

Windstream Holdings, Inc. provides communications and technology solutions in the United States. The company offers managed services and cloud computing services to businesses, as well as broadband, voice, and video services to consumers primarily in rural markets. Its primary business service offerings include integrated voice and data services, multi-site networking, data center services, managed services, high-speed Internet, voice services, and carrier services. The company also sells and leases communications equipment systems customized to business customers needs, as well as offers maintenance plans to support these systems. In addition, it provides consumer broadband services consisting of high-speed Internet access, Internet security services, and online backup services; and consumer voice services consisting of basic local telephone services, long-distance services, and features, including call waiting, caller identification, call forwarding, and others. Further, the company offers consumer video services; owns and operates cable television franchises; and provides switched access services to long-distance companies and other local exchange carriers for access to network. Additionally, it sells home phones to support voice services, as well as equipment to support high-speed Internet and voice offerings, including broadband modems, home networking gateways, and personal computers. As of December 31, 2013, the company operated a network of approximately 118,000 of fiber optic plant in fiber backbone and local service areas, as well as 26 data centers. Windstream Holdings, Inc. is based in Little Rock, Arkansas. (Source: Yahoo!Finance.com)

WindStream Corp (WIN)

Value-Line Growth Forecasts 2010-2012 to 2017-2019	
EPS	4.00%
DPS	0

6/20/2014 edition

Dividends	$	1.00
Yield		10.16%

I/B/E/S ThomsonFN Reported at YahooFinance.com

Growth Estimates	WIN	Industry	Sector	S&P 500
Current Qtr.	-37.50%	20944.20%	122.30%	14.20%
Next Qtr.	-33.30%	N/A	116.80%	24.00%
This Year	-45.70%	12.60%	7.20%	8.00%
Next Year	57.90%	12.50%	7.40%	12.90%
Past 5 Years (per annum)	-24.15%	N/A	N/A	N/A
Next 5 Years (per annum)	**-8.70%**	8.91%	6.43%	10.04%
Price/Earnings (avg. for comparison categories)	59.16	20.55	18.58	17.13
PEG Ratio (avg. for comparison categories)	-6.8	14.23	6.57	2.58

27-Aug-14

Price Data

Date	Average	
August	$	11.16
July	$	11.62
June	$	9.87
May	$	9.13
April	$	8.82
March	$	8.44
Average	$	9.84

Telephone & Data Systems (TDS)

Value-Line Growth Forecasts 2010-2012 to 2017-2019	
EPS	4.00%
DPS	4.00%

6/20/2014 edition

Dividends	$	0.51
Yield		1.97%

I/B/E/S ThomsonFN Reported at YahooFinance.com

Growth Estimates	TDS	Industry	Sector	S&P 500
Current Qtr.	0.00%	20944.20%	122.30%	14.20%
Next Qtr.	75.90%	N/A	116.80%	24.00%
This Year	-182.60%	12.60%	7.20%	8.00%
Next Year	50.80%	12.50%	7.40%	12.90%
Past 5 Years (per annum)	-24.71%	N/A	N/A	N/A
Next 5 Years (per annum)	**-4.00%**	8.91%	6.43%	10.04%
Price/Earnings (avg. for comparison categories)	-40.03	20.55	18.58	17.13
PEG Ratio (avg. for comparison categories)	10.01	14.23	6.57	2.58

27-Aug-14

Price Data

Date		Average
August	$	24.61
July	$	24.90
June	$	26.23
May	$	27.30
April	$	27.10
March	$	25.01
Average	$	25.86

Shenandoah Telecommunications Co. (SHEN)

Value-Line Growth Forecasts 2010-2012 to 2017-2019	
EPS	14.50%
DPS	3.50%

6/20/2014 edition

	Dividends	$	0.36
	Yield		1.24%

I/B/E/S ThomsonFN Reported at YahooFinance.com

Growth Est	**SHEN**	**Industry**	**Sector**	**S&P 500**
Growth Estimates	21.40%	N/A	55.90%	14.20%
Next Qtr.	25.90%	64.20%	44.20%	24.00%
This Year	9.80%	-10.10%	29.20%	8.00%
Next Year	17.00%	30.50%	20.20%	12.90%
Past 5 Years (per annum)	4.11%	N/A	N/A	N/A
Next 5 Years (per annum)	**24.40%**	16.20%	15.77%	10.04%
Price/Earnings (avg. for comparison categories)	20.31	11.13	12.06	17.13
PEG Ratio (avg. for comparison categories)	0.83	-5.7	0.02	2.58

27-Aug-14

Price Data

Date	Average	
August	$	27.85
July	$	29.00
June	$	28.75
May	$	27.29
April	$	29.08
March	$	29.97
Average	$	28.66

Enventis Corporation (ENVE) formerly Hickory Tech Corp. (HTCO)

Value-Line Growth Forecasts 2010-2012 to 2017-2019	
EPS	n/a
DPS	n/a

6/20/2014 edition

Dividend	$ 0.60
Yield	4.42%

I/B/E/S ThomsonFN Reported at YahooFinance.com

Growth Estimates	ENVE	Industry	Sector	S&P 500
Current Qtr.	N/A	20944.20%	122.30%	14.20%
Next Qtr.	N/A	N/A	116.80%	24.00%
This Year	N/A	12.60%	7.20%	8.00%
Next Year	N/A	12.50%	7.40%	12.90%
Past 5 Years (per annum)	-4.60%	N/A	N/A	N/A
Next 5 Years (per annum)	**3.80%**	8.91%	6.43%	10.04%
Price/Earnings (avg. for comparison categories)	N/A	20.55	18.58	17.13
PEG Ratio (avg. for comparison categories)	N/A	14.23	6.57	2.58

28-Aug-14

Price Data

Date	Average
August	$ 16.82
July	$ 16.14
June	$ 14.45
May	$ 12.63
April	$ 12.25
March	$ 13.57
Average	$ 14.31

Frontier Communications Corp (FTR)

Value-Line Growth Forecasts 2010-2012 to 2017-2019	
EPS	13.50%
DPS	-7.00%

6/20/2014 edition

Dividends	$ 0.40
Yield	6.78%

I/B/E/S ThomsonFN Reported at YahooFinance.com

Growth Estimates	FTR	Industry	Sector	S&P 500
Current Qtr.	-16.70%	20944.20%	122.30%	14.20%
Next Qtr.	-28.60%	N/A	116.80%	24.00%
This Year	-16.70%	12.60%	7.20%	8.00%
Next Year	-5.00%	12.50%	7.40%	12.90%
Past 5 Years (per annum)	-7.65%	N/A	N/A	N/A
Next 5 Years (per annum)	**-25.20%**	8.91%	6.43%	10.04%
Price/Earnings (avg. for comparison categories)	33.7	20.55	18.58	17.13
PEG Ratio (avg. for comparison categories)	-1.34	14.23	6.57	2.58

27-Aug-14

Price Data

Date	Average
August	$ 6.57
July	$ 6.43
June	$ 5.67
May	$ 5.77
April	$ 5.76
March	$ 5.21
Average	$ 5.90

Consolidated Communications Holdings Inc. (CNSL)

Value-Line Growth Forecasts 2010-2012 to 2017-2019	
EPS	15.50%
DPS	nil

December 20, 2013 Value-Line Investment Survey

Dividend	$ 1.55
Yield	7.39%

I/B/E/S ThomsonFN Reported at YahooFinance.com

Growth Estimates	CNSL	Industry	Sector	S&P 500
Current Qtr.	-23.30%	20944.20%	122.30%	14.20%
Next Qtr.	-4.30%	N/A	116.80%	24.00%
This Year	-5.00%	12.60%	7.20%	8.00%
Next Year	-2.10%	12.50%	7.40%	12.90%
Past 5 Years (per annum)	-0.15%	N/A	N/A	N/A
Next 5 Years (per annum)	**2.00%**	8.91%	6.43%	10.04%
Price/Earnings (avg. for comparison categories)	25.11	20.55	18.58	17.13
PEG Ratio (avg. for comparison categories)	12.56	14.23	6.57	2.58

28-Aug-14

Price Data

Date	Average
August	$ 23.19
July	$ 22.21
June	$ 21.14
May	$ 19.98
April	$ 19.56
March	$ 19.81
Average	$ 20.98

CenturyLink, Inc. (CTL)

Value-Line Growth Forecasts 2010-2012 to 2017-2019	
EPS	7.50%
DPS	-4.00%

6/20/2014 edition

Dividends	$ 2.16
Yield	5.88%

I/B/E/S ThomsonFN Reported at YahooFinance.com

Growth Estimates	CTL	Industry	Sector	S&P 500
Current Qtr.	-3.20%	20944.20%	122.30%	14.20%
Next Qtr.	68.40%	N/A	116.80%	24.00%
This Year	61.00%	12.60%	7.20%	8.00%
Next Year	-5.30%	12.50%	7.40%	12.90%
Past 5 Years (per annum)	-8.15%	N/A	N/A	N/A
Next 5 Years (per annum)	**-2.00%**	8.91%	6.43%	10.04%
Price/Earnings (avg. for comparison categories)	15.44	20.55	18.58	17.13
PEG Ratio (avg. for comparison categories)	-7.72	14.23	6.57	2.58

28-Aug-14

Stock Prices

Date	Average
August	$ 39.97
July	$ 40.82
June	$ 36.90
May	$ 36.32
April	$ 34.18
March	$ 32.07
Average	$ 36.71